

PRODUCT

CATALOGUE 2022|23

NETWORK TECHNOLOGY

FIBER OPTIC CABLING

COPPER CABLING

NETWORK AND
SERVER CABINETS

POWER SUPPLY

MULTIMEDIA

ACTIVE NETWORK
COMPONENTS



WE CARE FOR **CONNECTION SINCE 1988**



THE EFB-ELEKTRONIK GMBH

is a leading manufacturer and system provider of networking technology and industrial system solutions. Our expertise ranges from structured cabling, using certified high-end products for data centres to custom developments for industrial clients.

Our team services customers worldwide from our headquarters in Bielefeld, Germany. Our customer base includes renowned household names from the IT and security industry, as well as medium sized companies and large corporations.

Our membership in the international TKH Group based in the Netherlands, with more than 6,500 employees and production facilities around the globe, gives us additional leverage for the benefit of our customers.

The EFB group of companies has 330 employees across nine locations in Europe, five of them in Germany, three subsidiary companies located in Istanbul, Copenhagen and Vienna and one production site in Slovakia.

The current turnover of the TKH Group amounts to 1.3 billion Euros (2020). With a sales volume of 66 million Euros (2020), the EFB-Elektronik GmbH ranks among the leading companies of the group.

LEARN MORE ABOUT OUR COMPANY:
www.efb-elektronik.de/en/aboutus

JOIN THE EFB COMMUNITY:



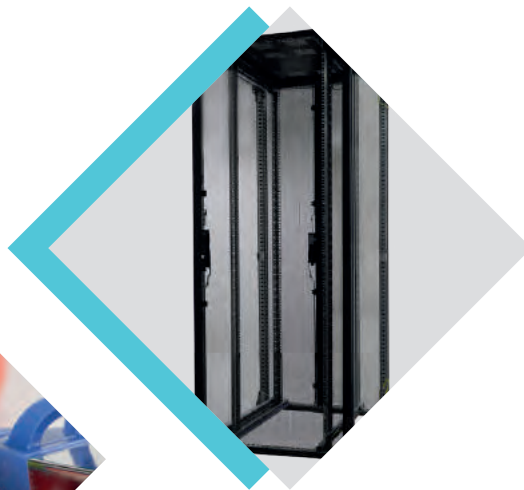
DISCOVER THE EFB PRODUCT PORTFOLIO



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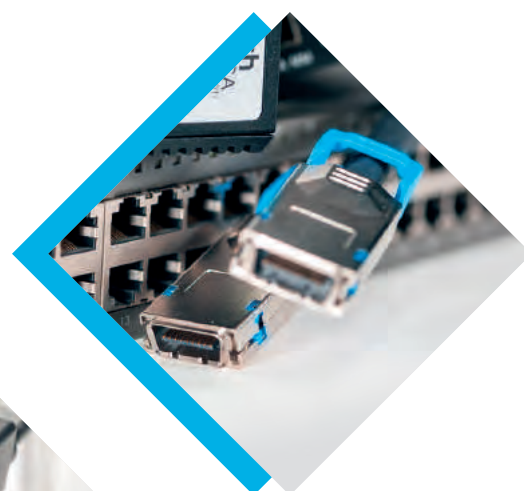
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THAT'S WHY WE ARE THE RIGHT PARTNER

NUMEROUS GOOD REASONS FOR COOPERATION WITH EFB-ELEKTRONIK

WE STRIVE TO PROVIDE PRODUCTS AND SERVICES THAT HELP YOU SUCCEED:

with greater productivity, reduced downtime costs or lower maintenance costs. For over 30 years, we have been growing along with our customers!

PERSONAL CONTACT PARTNERS & PROFESSIONAL CONSULTATION

Through personal contact to our customers, partners and suppliers, we achieve maximum customer orientation. As a result, you benefit from professional consultation with contact partners appointed to accompany you throughout the course of your projects.

STRONG PARTNER FOR CUSTOM-MADE PRODUCTS

In addition to our standard assortment, we are always open to provide individual custom-made products made at our own manufacturing sites for fiber optic and copper cabling. We can therefore swiftly implement small-scale and large-scale productions alike at a high quality level.

RELIABLE & TIMELY DELIVERY

On-schedule delivery is a vital part of successful collaboration.

CHOOSE FROM A WIDE RANGE: FIND THE PRODUCT SOLUTION THAT IS RIGHT FOR YOU:

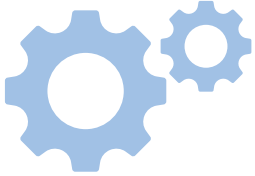
Structured cabling for buildings is our passion. Only from EFB: a product portfolio that is both wide and deep, with over 10,000 products available. This is how we are able to provide you with a 100% tailored selection for a wide variety of applications.

VERIFIED QUALITY: RELIABILITY AND SATISFACTION FOR CUSTOMERS

This makes EFB-Elektronik unique: Our two-stage quality control for imported goods. After a pre-inspection on site at the supplier's premises, the products will be inspected once more by our internal quality assurance teams.



FROM INDIVIDUAL PRODUCTS TO COMPLETE SOLUTIONS



EFB-ELEKTRONIK AS A SYSTEM PROVIDER

Network installations come with challenges – regardless of the type of building. We can point you to the right products for your specific demands: From copper and fiber optic components to rack systems and power supplies and all the way up to multimedia cable configurations.

EFB-ELEKTRONIK AS A MANUFACTURER

As a manufacturer, we guarantee top product quality. In addition to custom-made fiber optic and copper cables, we also produce and assemble splice boxes, rack systems and complete industrial cable groups. We stand for optimal quality control, fast response times and short delivery channels to implement your requirements as quickly as possible.



EFB-ELEKTRONIK AS A TECHNICAL ADVISER

Our customers have the benefit of our extensive technical expertise in a variety of areas. Whether it is about data networks, automation and medical technology or renewable energy – a team of experienced and skilled specialised engineers accompany our customers with their projects, every step of the way.

EFB-ELEKTRONIK AS A SERVICE PROVIDER

We strive to always offer our customers the best possible service. This is why we consistently focus on our customers' needs and offer numerous advantages.



EFB-ELEKTRONIK AS A LOGISTICS PARTNER

We are constantly evaluating and optimising our logistical supply processes, so that incoming orders can be processed immediately and available items can be shipped out the same day.



Robin Ohle, Director of EFB-Elektronik GmbH.

“ **OUR MISSION IS TO DO EVERYTHING WE CAN IN ORDER HELP OUR CUSTOMERS SUCCEED.** ”

CUSTOMISED SPECIAL SOLUTIONS

Explore the wide range of services that allows us to always find the right solution for your project-based product requirements. With our own staff and technical equipment, we make our expertise available to you at our various locations. Take advantage of our fast and efficient processes.



Custom-tailored solutions:
A one-stop shop offering perfectly tailored solutions



Personal & qualified technical advisers, over the phone & in-person



Fast implementation of special requirements



Comprehensive quality assurance



Many years of experience and expertise in small-scale and large-scale production



Reduce your workload:
Our products, optimally prepared for you to finish



DOING OUR PART FOR THE ENVIRONMENT



This free product catalogue was printed using a 100% green manufacturing concept, based on the principles of sustainability and the recycling economy. The Blue Angel guarantees that these products and services comply with high environmental, health and quality standards.

SERVICE THAT GOES BEYOND

CONFIGURATORS

With just a few clicks, you can design your individual product and directly request a binding quotation using the EFB configurators.

- Saves time for follow-up orders
 - Your configuration, your prices
 - Sensible solutions
 - Available twenty-four seven
-
- **Configurator for network & server racks**
 - **Configurator for ready-made breakout & loose tube cables**

PRODUCT-RELATED SERVICES

At our various manufacturing sites, we are able to implement all types of project-based product requirements. This way, we can always find the right solution and create a product tailored to your needs.

- Production of single strands, cable harnesses & installation of assemblies
- Assembly of fiber optic cables, subracks, FTTX components and customised configurations
- Splice boxes equipped according to customer requirements
- Special measurements for trunk, patch and fiber optic cables
- Cables cut to length and marked
- Cabinet retrofit & installation

PACKAGING-RELATED SERVICES

Packed in cardboard boxes or however you request, with or without markings – always individually and just the way you need it done. Our trained, personal technical advisers help you assemble the perfect service package for you.

- Repackaging of goods according to your specifications
- (Re-)labelling
- Wrap labels & tags directly on the cable
- ESD packaging
- Environmentally friendly packaging alternatives available



HERE FOR YOU 24/7

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BE THE FIRST TO KNOW

The EFB Newsletter



COMPREHENSIVE PRINTED MATERIALS

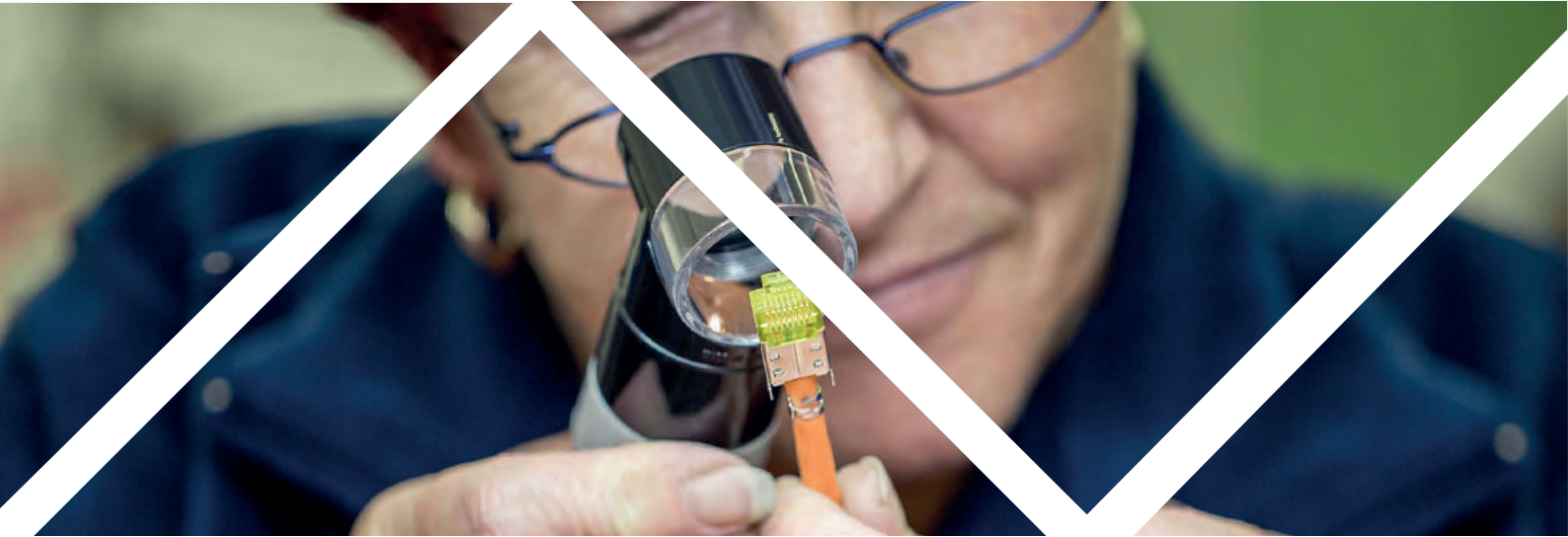
Catalogues, brochures, certificates – available to you free of charge.



EFB KNOWLEDGE WORKSHOP

Webinars and seminars

OUR MANUFACTURING PLANTS



**Individually
custom-made items
possible**



**Fast
response times and
short delivery routes**



**Fastest possible
implementation
of individual
requirements**



**High-quality
processing by
specialised personnel**



**Optimal
quality control**

OUR MANUFACTURING PLANTS

In Germany, EFB-Elektronik operates two manufacturing plants – in Bielefeld and in Sonneberg. We also have our own manufacturing plant in Slovakia.

The balanced combination of state-of-the-art technology and precision craftsmanship ensure that the products meet the high quality standards of the customers. We specialise in speed and flexibility.

EVERY PRODUCT HELD TO THE HIGHEST STANDARDS

Easy to operate, strong in application and of great benefit to users. Quality is one of the outstanding performance features of our products. Quality at the highest level is ensured through compliance with all standards and with qualified production processes.

- Management systems: ISO9001
- Product specifications, e.g. ETL, GHMT, Delta
- Licenses: e.g. UL

BRAND-NAME PRODUCTS WITH ADDED VALUE



OUR INFRALAN® PREMIUM BRAND - CABLING SYSTEM

Reliability of your high-performance system provided now and in future. Our INFRALAN® brand stands for high-performance system solutions all around structured cabling of buildings. Discover selected high-performance components for structured fiber optic and copper cabling as well as cabinet systems – all provided by a single source.

WHY IS INFRALAN® IN?



EXPERTISE



PERFECT SYNERGY



RELIABILITY



HIGH PERFORMANCE



FUTURE-PROOF SOLUTIONS

www.infralan.de/en | info@infralan.de

Our comprehensive product portfolio offers you the best selection of products, so you can find the solutions that meet all your requirements: We carry many major brands, to help you decide which products are right for you. Discover the brands for yourself, or ask your contact partner.



TECHLY® – THE MODERN IT BRAND

TECHLY® stands for innovative products designed to connect people, drive businesses and improve our way of life. What makes our products unique is that they are easy to use and create a smart environment that is also greener.

www.efb-elektronik.de/en/techly



KAPTUR® SCAN SOLUTIONS FOR EASY DATA CAPTURE

As the exclusive distributor in the DACH countries, EFB-Elektronik offers KAPTUR®-brand premium scanning equipment for 1D and 2D barcodes, for identification and data capture.

www.efb-elektronik.de/en/kaptur

FIBER OPTIC CABLING

// FOR VARIOUS APPLICATIONS

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**CONNECTORS &
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**TRUNK CABLE /
PRE-ASSEMBLED
INSTALLATION
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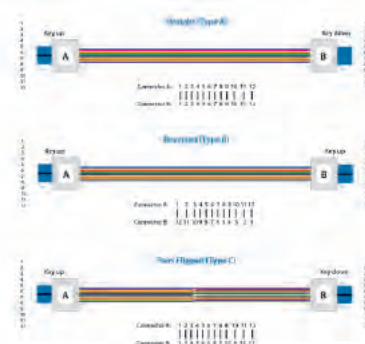
MTP-SYSTEM //



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Cable Management	P. 240



MTP®-F/LC 8-fiber patch cable

Application: Suitable for transmission links up to **100 Gigabit**

Construction: 1 multi-connector MTP® on one side,
4 LC-Duplex connector on the other side

LowLoss version: attenuation per Fanout max. 0,35dB

Matrix: 8 fibers

Assignment MTP 1-4 + 9-12

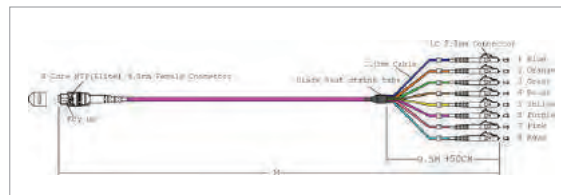
Furcation length: 50cm

Cable diameter multi-connector: 3mm

Cable diameter single-connector: 2mm

Colour: OM4 and OS2 acc. to colour code DIN VDE 0888

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10,0 - 15,0 - 20,0 m



Art.-No.	Description	Connector	Fiber type	Coding
MTPF08LCOS2-xx	MTP®-F/LC 8-fiber patch cable OS2, LSZH yellow	MTP-F/ LC-Duplex	G657A1	1:1
MTPF08LCOM4-xx	MTP®-F/LC 8-fiber patch cable OM4, LSZH erica-violet	MTP-F/ LC-Duplex	OM4 50/125	1:1



MTP®-F/LC 12-fiber patch cable

Application: Suitable for transmission links up to **100 Gigabit**

Construction: 1 multi-connector MTP® on one side,
6 LC-Duplex connector on the other side

LowLoss version: attenuation per Fanout max. 0,35dB

Matrix: 12 fibers

Furcation length: 50cm

Cable diameter multi-connector: 3mm

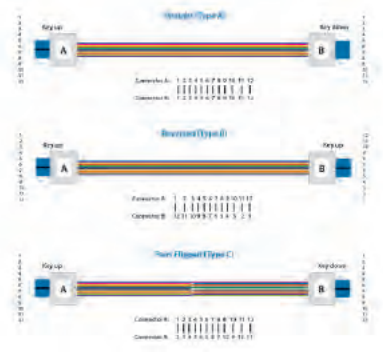
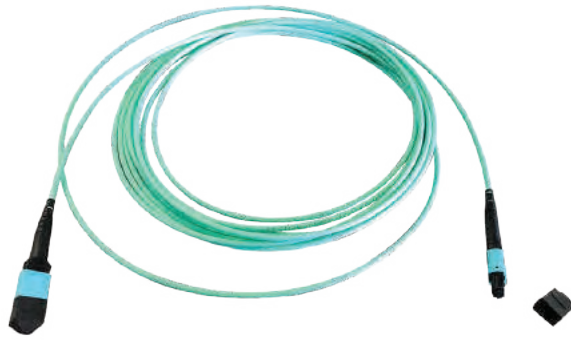
Cable diameter single-connector: 2mm

Colour: OM5, OM4, OM3 and OS2 acc. to colour code DIN VDE 0888

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10,0 - 15,0 m



Art.-No.	Description	Connector	Fiber type	Coding
MTPF12LCAPC-xx	MTP®-F/LC/APC 12-fiber patch cable OS2, LSZH yellow	MPO-F/ LC/APC	G657A1	1:1
MTPF12LCOS2-xx	MTP®-F/LC 12-fiber patch cable OS2, LSZH yellow	MPO-F/ LC-Duplex	G657A1	1:1
MTPF12LCOM5-x	MTP®-F/LC 12-fiber patch cable OM5, LSZH lime green	MTP-F/ LC-Duplex	OM5 50/125	1:1
MTPF12LCOM4-xx	MTP®-F/LC 12-fiber patch cable OM4, LSZH erica-violet	MTP-F/ LC-Duplex	OM4 50/125	1:1
MTPF12LCOM3-xx	MTP®-F/LC 12-fiber patch cable OM3, LSZH aqua	MTP-F/ LC-Duplex	OM3 50/125	1:1



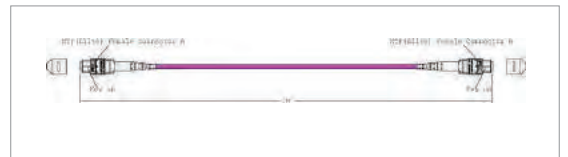
MTP®-F/MTP®-F 12-fiber patch cable, Code B

Application: Server to Server- / Switch to Switch connection,
 Suitable for transmission links up to **100 Gigabit**
 Connector manufacturer: **US Conec**
 Matrix: 12 Fibers
 Singlemode variant always as APC version
 Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

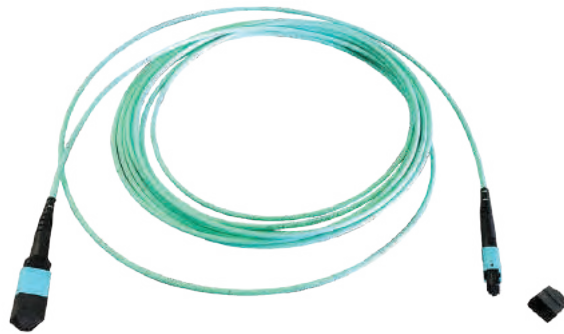
Available lengths: 1m up to 100m

Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10,0 - 15,0 m



Art.-No.	Description	Connector	Fiber type	Coding
MTPF12MTPFOS2-xx	MTP®-F/MTP®-F 12-fiber matrix patch cable OS2, LSZH yellow, Code B	MTP-F/ MTP-F	G657A1 9/125	Type B crossed
MTPF12MTPFOM5-xx	MTP®-F/MTP®-F 12-fiber matrix patch cable OM5, LSZH lime green, Code B	MTP-F/ MTP-F	OM5 50/125	Type B crossed
MTPF12MTPFOM4-xx	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code B	MTP-F/ MTP-F	OM4 50/125	Type B crossed
MTPF12MTPFOM3-xx	MTP®-F/MTP®-F 12-fiber matrix patch cable OM3, LSZH aqua, Code B	MTP-F/ MTP-F	OM3 50/125	Type B crossed



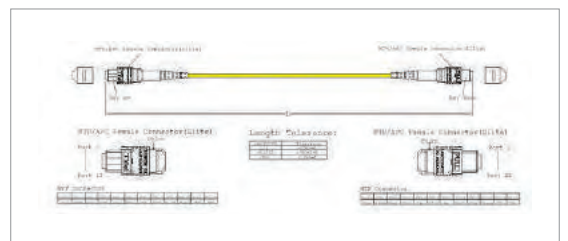
MTP®-F/MTP®-F 12-fiber matrix Patch cable, Code A

Application: Server to Server- / Switch to Switch connection,
 Suitable for transmission links up to **100 Gigabit**
 Connector manufacturer: **US Conec**
 Matrix: 12 Fibers
Singlemode variant always as APC version
 Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

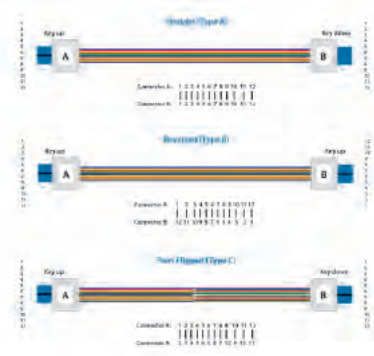
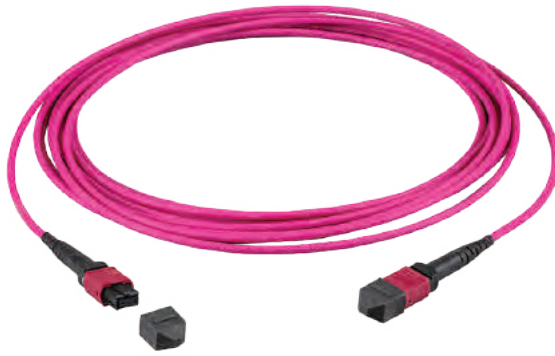
Available lengths: 1m up to 100m

Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10,0 - 15,0 m



Art.-No.	Description	Connector	Fiber type	Coding
MTPF12MTPFOS2-xx-A	MTP®-F/MTP®-F 12-fiber matrix Patch cable OS2, Code A	MTP-F/ MTP-F	G657A1 9/125	Type A straight
MTPF12MTPFOM4-xx-A	MTP®-F/MTP®-F 12-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	OM4 50/125	Type A straight
MTPF12MTPFOM3-xx-A	MTP®-F/MTP®-F 12-fiber matrix Patch cable OM3, LSZH aqua Code A	MTP-F/ MTP-F	OM3 50/125	Type A straight



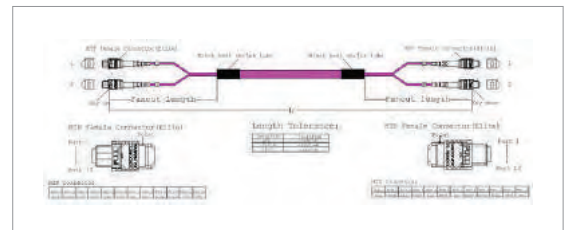
MTP®-F/MTP®-F 24-fiber matrix Patch cable, Code A

Application: Server to Server- / Switch to Switch connection,
 Suitable for transmission links up to **100 Gigabit**
 Connector manufacturer: **US Conec**
 Matrix: 12 Fibers
 Singlemode variant always as APC version
 Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

Available lengths: 1m up to 100m

Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Stock length: 5,0 - 7,5 - 10,0 - 15,0 - 20,0 - 25,0 - 30,0 m



Art.-No.	Description	Connector	Fiber type	Coding
MTPF24MTPF0S2-xx-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OS2, LSZH yellow, Code A	MTP-F/ MTP-F	G657A1 9/125	Type A straight
MTPF24MTPF0M4-xx-A	MTP®-F/MTP®-F 24-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	OM4 50/125	Type A straight



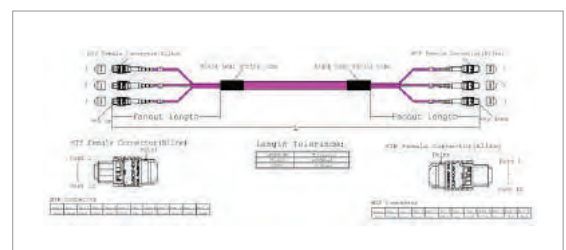
MTP®-F/MTP®-F 36-fiber matrix Patch cable, Code A

Application: Server to Server- / Switch to Switch connection,
 Suitable for transmission links up to **100 Gigabit**
 Connector manufacturer: **US Conec**
 Matrix: 12 Fibers
 Singlemode variant always as APC version
 Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

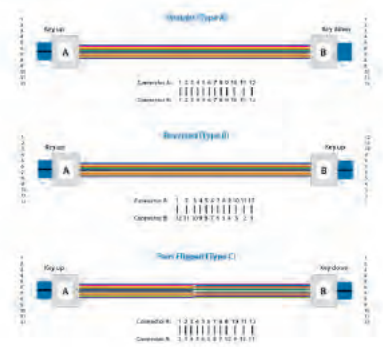
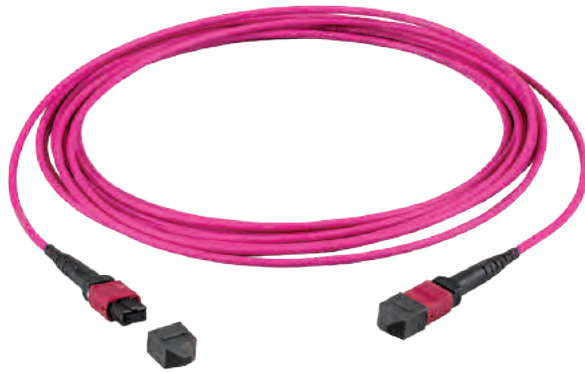
Available lengths: 1m up to 100m

Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Stock length: 5,0 - 7,5 - 10,0 - 15,0 - 20,0 - 25,0 - 30,0 m



Art.-No.	Description	Connector	Fiber type	Coding
MTPF36MTPF0S2-xx-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OS2, LSZH yellow, Code A	MTP-F/ MTP-F	G657A1 9/125	Type A straight
MTPF36MTPF0M4-xx-A	MTP®-F/MTP®-F 36-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	OM4 50/125	Type A straight



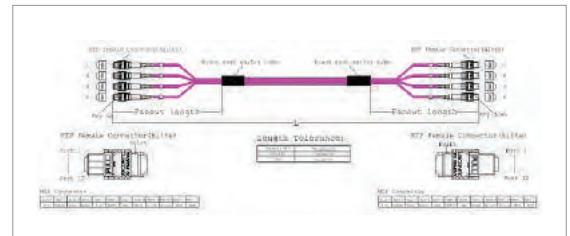
MTP®-F/MTP®-F 48-fiber matrix Patch cable, Code A

Application: Server to Server - / Switch to Switch connection,
 Suitable for transmission links up to **100 Gigabit**
 Connector manufacturer: **US Conec**
 Matrix: 12 Fibers
 Singlemode variant always as APC version
 Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

Available lengths: 1m up to 100m

Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Stock length: 5,0 - 7,5 - 10,0 - 15,0 - 20,0 - 25,0 - 30,0 m



Art.-No.	Description	Connector	Fiber type	Coding
MTPF48MTPFOS2-xx-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OS2, LSZH yellow, Code A	MTP-F/ MTP-F	G657A1 9/125	Type A straight
MTPF48MTPFOM4-xx-A	MTP®-F/MTP®-F 48-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	OM4 50/125	Type A straight



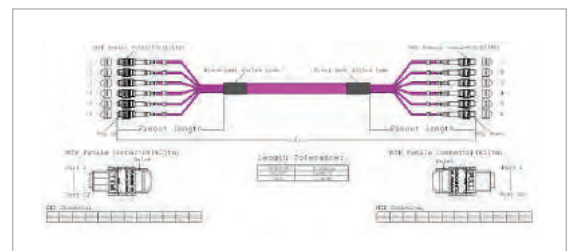
MTP®-F/MTP®-F 72-fiber matrix Patch cable, Code A

Application: Server to Server - / Switch to Switch connection,
 Suitable for transmission links up to **100 Gigabit**
 Connector manufacturer: **US Conec**
 Matrix: 12 Fibers
 Singlemode variant always as APC version
 Colour: OM5 lime green, OM4 erica-violet, OM3 aqua and OS2 yellow

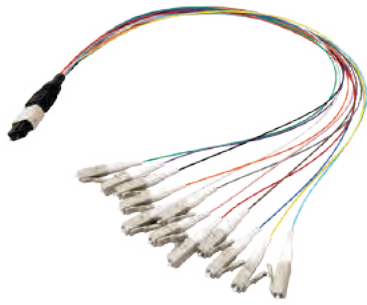
Available lengths: 1m up to 100m

Note: In each MTP® transmission link, a type B (crossed) patch cable is required

Stock length: 5,0 - 7,5 - 10,0 - 15,0 - 20,0 - 25,0 - 30,0 m



Art.-No.	Description	Connector	Fiber type	Coding
MTPF72MTPFOM4-xx-A	MTP®-F/MTP®-F 72-fiber matrix patch cable OM4, LSZH erica-violet, Code A	MTP-F/ MTP-F	OM4 50/125	Type A straight



Fanout Cable MTP®-Male/LC 8-fiber

Application: Suitable for transmission links up to **100 Gigabit**
 Construction: 1 multi-connector MTP® Male on one side,
 8 Single connector on the other side (e.g. LC)
 Assignment MTP 1-4 + 9-12
LowLoss
 version: attenuation per Fanout max. 0,35dB
 Matrix: 8 fibers
 Cable diameter single-connector: 900µm
 Colour: OM4, OM3 and OS2 acc. to colour code DIN VDE 0888

Stock length: 0,4 - 1,0 m

Art.-No.	Description	Connector	Fiber type
MTPM08LCOS2-xx	MTP®-M/LC 8-fiber Fanout Cable OS2, LSZH yellow	MTP-M/ LC	OS2 9/125
MTPM08LCOM4-xx	MTP®-M/LC 8-fiber Fanout Cable OM4, LSZH erica-violet	MTP-M/ LC	OM4 50/125
MTPM08LCOM3-xx	MTP®-M/LC 8-fiber Fanout Cable OM3, LSZH aqua	MTP-M/ LC	OM3 50/125



Fanout Cable MTP®-Male/LC 12-fiber

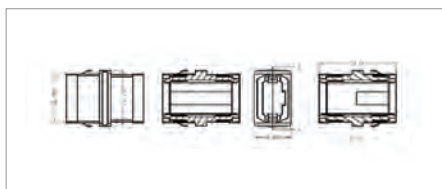
Application: Suitable for transmission links up to **100 Gigabit**
 Construction: 1 multi-connector MTP® Male on one side,
 12 Single connector on the other side (e.g. LC)
LowLoss version: attenuation per Fanout max. 0,35dB
 Matrix: 12 fibers
 Cable diameter single-connector: 900µm
 Colour: OM4, OM3 and OS2 acc. to colour code DIN VDE 0888

Stock length: 0,4 - 1,0 m

Art.-No.	Description	Connector	Fiber type
MTPM12LCAPC-xx	MTP®-M/LC/APC 12-fiber Fanout Cable OS2, LSZH yellow	MTP-M/ LC/APC	OS2 9/125
MTPM12LCOS2-xx	MTP®-M/LC 12-fiber Fanout Cable OS2, LSZH yellow	MTP-M/ LC	OS2 9/125
MTPM12LCOM4-xx	MTP®-M/LC 12-fiber Fanout Cable OM4, LSZH erica-violet	MTP-M/ LC	OM4 50/125
MTPM12LCOM3-xx	MTP®-M/LC 12-fiber Fanout Cable OM3, LSZH aqua	MTP-M/ LC	OM3 50/125



FURTHER ADAPTERS CAN BE FOUND ON PAGE 92

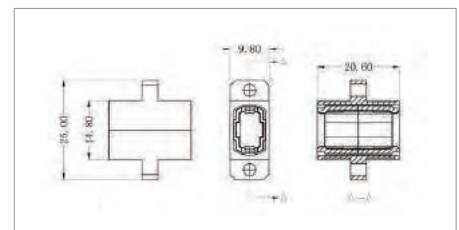


MTP® / MPO Adapter, black, flangeless SC Simplex

MTP / MPO adapter, flangeless in SC Simplex dimension

Type of connector connection 1: MTP/MPO
 Type of connector connection 2: MTP/MPO
 Design: SC-Simplex
 Type of housing: flangeless
 Type of fastening: screw/lock
 Material sleeve: plastic

Art.-No.	Description	Suitable for type of fiber	Colour	Type
53458.1	MTP/MPO adapter flangeless, codable up/up or up/down	Singlemode and Multimode 50/125	black	PC/ APC

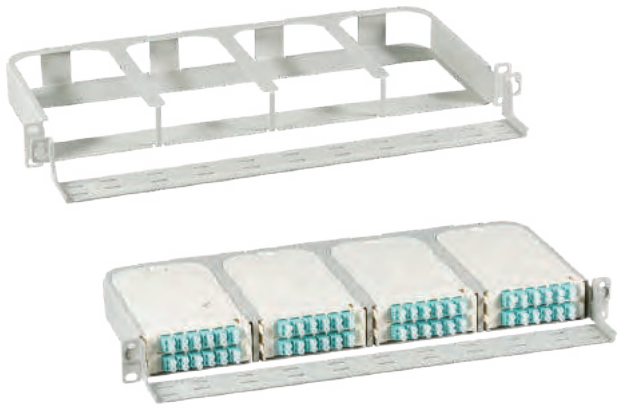


MTP® / MPO Adapter, black

MTP / MPO adapter

Type of connector connection 1: MTP/MPO
 Type of connector connection 2: MTP/MPO
 Type of housing: With flange
 Type of fastening: screw/lock
 Material sleeve: plastic

Art.-No.	Description	Suitable for type of fiber	Colour	Type
53458.1V2	MTP/MPO adapter with flange, codable up/up or up/down	Singlemode and Multimode 50/125	black	PC/ APC

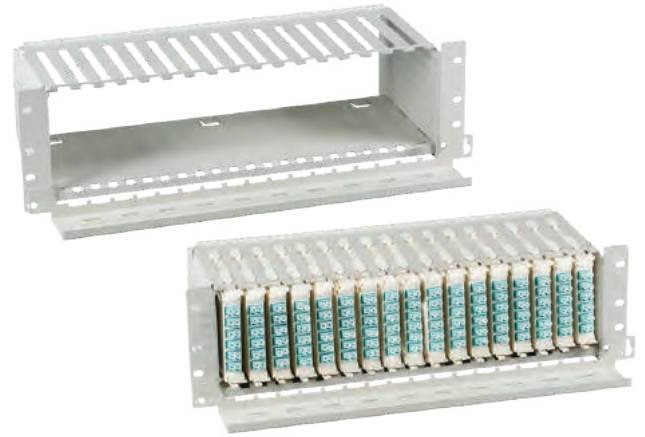


FTTH 19" 1U Subrack for 8x Module FTTH-MODUL-X incl. cable management

19" subrack for FTTH-MODUL-XX (delivery without modules)
Up to 96 LC ports to 1 unit
with front-sided cable tray
delivery without modules

Material:Steel sheet
Surface finishing:With powder coating
Type of enclosure:open
With ventilation slots:Yes
Degree of Protection (IP):IP20
Width:483 mm
Height:44,5 mm
Depth:190 mm

Art.-No.	Max. Moduls	Max. Ports	Colour
FTTH-BGT-1HE	8	96 LC / 48 SC	grey



FTTH 19" 3HE Subrack for 17x FTTH-MODUL-X incl. cable management

19" subrack for FTTH-MODUL-XX (delivery without modules)
Up to 204 LC ports to 3 units
with front-sided cable tray
delivery without modules

Material:Steel sheet
Surface finishing:With powder coating
Type of enclosure:open
With ventilation slots:Yes
Degree of Protection (IP):IP20
Width:483 mm
Height:135 mm
Depth:190 mm

Art.-No.	Max. Moduls	Max. Ports	Colour
FTTH-BGT-3HE	17	204 LC / 102 SC	grey



FTTH Module for FTTH-BGT

Suitable for 1U and 3U subrack FTTH-BGT-xHE
Pre-equipped with adapter in single mode, multimode OM4 or multimode OM3 with ceramic ferrule
Inclined outlet left/right for the 1U version, top/bottom outlet for the 3U version
Cable entry via MTP®/MPO adapter
Splice cassette (Shrink -and Crimp protection) holder included in cassette for MTP®/ MPO free installation

Number of height units (U):0,5
With Pigtail:No

Delivery without Pigtails and MTP®/MPO adapter

Art.-No.	Moduls	Quantity adapters	Adapters	APC	Adapter colour
FTTH-MODUL-LCAPC	Singlemode	6	LC duplex	Yes	green
FTTH-MODUL-LCOS2	Singlemode	6	LC duplex	No	blue
FTTH-MODUL-LCOM4	Multimode OM4	6	LC duplex	No	erica-violet
FTTH-MODUL-LCOM3	Multimode OM3	6	LC duplex	No	aqua
FTTH-MODUL-SCOS2	Singlemode	6	SC	No	blue
FTTH-MODUL-SCOM4	Multimode OM4	6	SC	No	erica-violet
FTTH-MODUL-SCOM3	Multimode OM3	6	SC	No	aqua



FURTHER SFP MODULS CAN BE FOUND ON PAGE 330



FINISAR

QSFP+ 40GBASE-SR4, 4x10.5GBPS MPO

The QSFP+ transceiver are designed for 40 Gigabit Ethernet connections over 850nm multimode fibers. They are according to QSFP+ MSA, IEEE 802:3ba 40GBASE-SR4 and 4 x 10GBASE-SR. Additionally the transceiver features digital diagnostic functions and has optical power monitoring.

- Up to max. of 40Gb/s, 10,5Gb/s per channel
- 4-channel full duplex transceiver module
- maximum range: 150 m (OM4), 100 m (OM3), 30 m (Om2)
- Hot-pluggable QSFP+ design
- Mating face: 1 x 12 MPO female
- Max. power consumption 1.2 W
- Reliable VCSEL technology
- RoHS compliant

Art.-No.	Con- nector	Medium	Wave- length	Link distance	Temperature	Speed
FTL410QE3C	MPO	Multimode	850 nm	100/150 m	-10 – 70 °	40 Gbit/s

FINISAR

QSFP28 100Gigabit Ethernet 100Gbit/s

Transceiver modules (uncoded) for Ethernet network applications from 100Mbit/s to 100Gbit/s. Active components of the category SWITCH or ROUTER can be equipped with corresponding transceiver modules, provided that the transmission speeds are also supported. Application areas: Ethernet - Infiniband - Fiberchannel - Storage Area Networks - Local Area Networks - Datacenter

Transceiver QSFP28 100Gigabit MM 100Gbit/s 100GBaseSR4 25Gx4 MPO/MTP12 0 .. +70°C Multimode OM4 100m

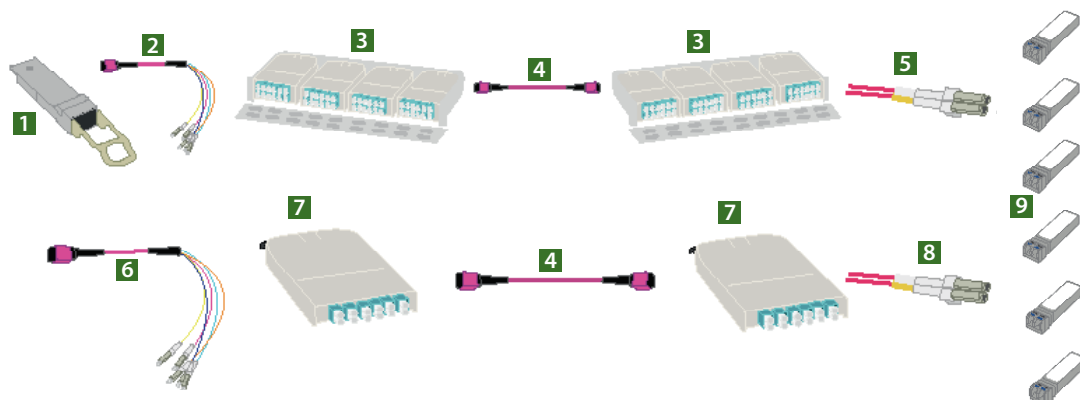
Art.-No.	Con- nector	Medium	Wave- length	Link distance	Tempera- ture	Speed
FTLC9551REPM	MPO	Multimode	850 nm	100 m	0 – 70 °C	100 Gbit/s

MTP® APPLICATIONS THE STRUCTURE OF AN MTP® CHANNEL



- To build up a transmission link from a MTP® QSFP switch to a floor distribution with LC SFP modules, a migration from e.g. 100G MTP® to 4 x 25G on LC basis is realized.
- For cabling, an MTP® Harness cable in 8-fiber is used to keep the cabling effort as low as possible.
- In addition, there is a collection point for MTP® to which a 12-fiber MTP® cable is connected.
- Another collection point is located at the other end to be able to convert from MTP® to LC again.

COMPONENT SELECTION:





Outdoor Boxes (Gf-APL)	P. 23
Indoor Boxes (Gf-TA)	P. 24
Communication Outlets	P. 25 - 26
Subracks	P. 27
Pre-Assembled components	P. 28
Installation cable	P. 29
Pigtails	P. 31
Splitter and field installable connector	P. 32
CPE	P. 33

FTTX //

// YOU MAY ALSO BE INTERESTED IN:

Simplex Jumper Singlemode	P. 84
IP55 Network Cabinets	P. 217



FTTH-BOX-OUT-1 closed



FTTH-BOX-OUT-2 closed



FTTH-BOX-OUT-3 closed



FTTH-BOX-OUT-4 closed

IP65 Connection Box 2 - 16 ports

Foreign body and contact protection: Protection against ingress of dust
 Water protection:..... Protection against jet water
 Type of Splice protection:..... Crimp & Thermo
 Suitable for adapter:..... SC Simplex/LC Duplex/E2000®
 Scope of application: Outdoor
 Mounting:..... Wall mounting
 Possibility of mast mounting: No
 Material: Plastic
 Colour: White

CRIMP &
SHRINK SPLICE
HOLDER
INCLUDED



FTTH-BOX-OUT-1 open

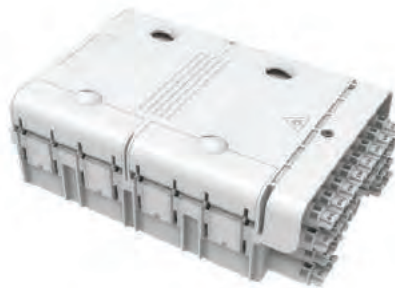
FTTH-BOX-OUT-2 open



FTTH-BOX-OUT-3 open

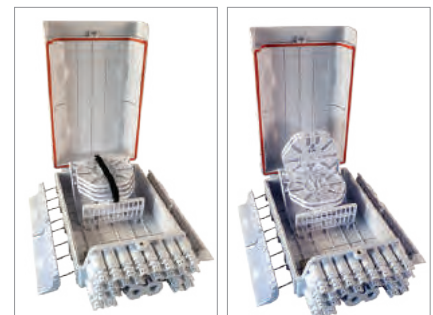
FTTH-BOX-OUT-4 open

Art.-No.	Cable entry without cable gland	Cable entry with cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
FTTH-BOX-OUT-1	16x 3-5mm	2x PG13,5	16	295 x 220 x 85 mm	-25 – 70 °C	Lock
FTTH-BOX-OUT-2	8x max. 3mm / 1x max. 9mm	2x PG13,5	8	213 x 163 x 47 mm	-25 – 70 °C	Special screw/ Seal
FTTH-BOX-OUT-3	1x max. 10mm / 4x max. 4mm		4	172 x 136 x 40 mm	-25 – 70 °C	Special screw/ Seal
FTTH-BOX-OUT-4	1x max. 10mm / 2x max. 4mm		2	165 x 100 x 30 mm	-25 – 70 °C	Special screw/ Seal



IP65 Connection Box for 48 - 144 fiber

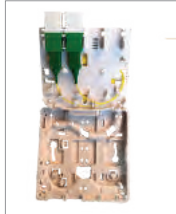
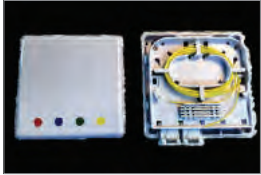
Foreign body and contact protection: Protection against dust deposits
 Water protection:..... Protection against jet water
 Type of Splice protection:..... Thermo
 Suitable for adapter:..... SC Simplex/LC Duplex/E2000®
 Scope of application: Outdoor
 Mounting:..... Wall mounting
 Possibility of mast mounting: True
 Material: Plastic
 Colour: Grey



Art.-No.	Cable entry without cable gland	Cable entry with cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
FTTH-BOX-OUT-7	16 x 2-3mm; 2 x 15mm; 2 x 18mm		144	232 x 358.5 x 130.5 mm	-25 – 70 °C	Special screw/ Seal
FTTH-BOX-OUT-6	16 x 2-3mm; 2 x 15mm; 2 x 18mm		96	232 x 358.5 x 130.5 mm	-25 – 70 °C	Special screw/ Seal
FTTH-BOX-OUT-5	24 x 2-3mm	2x PG19	48	232 x 359 x 130.5 mm	-25 – 70 °C	Special screw/ Seal



FLUSH AND SURFACE MOUNTABLE



FTTH Box for 4 adapters SC-S or LC-D 80x80 with cable guide

Foreign body and contact protection: Protection against medium-sized foreign bodies
 Water protection:..... Without protection
 Type of Splice protection:..... Crimp or Thermo
 Suitable for adapter:..... SC Simplex/LC Duplex/E2000®
 Scope of application: Inside
 Mounting:..... Wall mounting;DIN Rail
 Possibility of mast mounting:False
 Material: plastic
 Colour: white

Art.-No.	Cable entry without cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control	Version
FTTH-BOX-IN-6	5 x 5 mm	4	80 x 80 x 28 mm	0 – 50 °C	without	Crimpprotection
FTTH-BOX-IN-7	5 x 5 mm	4	80 x 80 x 28 mm	0 – 50 °C	without	Shrinkprotection



FTTH-BOX-IN-1 closed



FTTH-BOX-IN-3 closed



FTTH-BOX-IN-2 closed



FTTH-BOX-IN-4 closed

Indoor Connection Box

Foreign body and contact protection: Protection against medium-sized foreign bodies
 Water protection:..... Without protection
 Type of Splice protection:..... Thermo
 Suitable for adapter:..... SC Simplex/LC Duplex/E2000®
 Scope of application: Indoor
 Mounting:..... Wall mounting
 Possibility of mast mounting:No
 Material: plastic
 Colour: white

SUITABLE ADAPTERS FROM P. 92



FTTH-BOX-IN-1 open



FTTH-BOX-IN-2 open

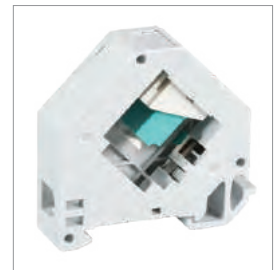
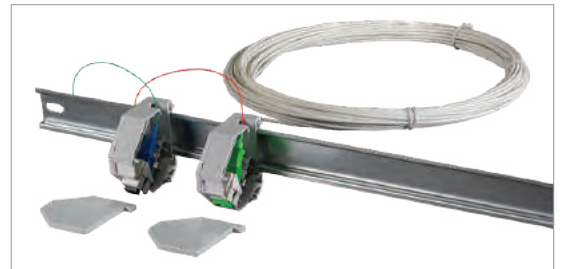
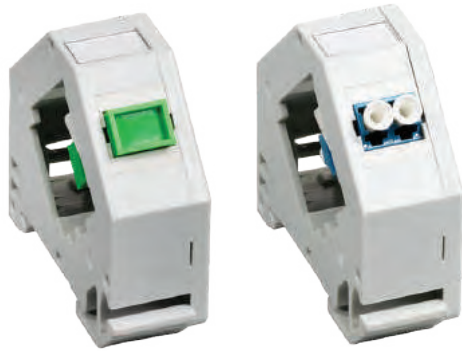


FTTH-BOX-IN-3 open



FTTH-BOX-IN-4 open

Art.-No.	Cable entry without cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
FTTH-BOX-IN-1		4	150 x 110 x 34 mm	0 – 50 °C	Without
FTTH-BOX-IN-2		2	84 x 130 x 24 mm	0 – 50 °C	Without
FTTH-BOX-IN-3		2	115 x 86 x 23 mm	0 – 50 °C	Without
FTTH-BOX-IN-4		2	148 x 90 x 16 mm	0 – 50 °C	Without
FTTH-BOX-IN-5		4	101 x 81 x 29 mm	0 – 50 °C	Without
53700.2	2	4	100 x 80 x 22 mm	-20 – 60 °C	Without



DIN RAIL adapter assembled

Type of fastening:DIN-Rail 35 mm
 Type of DIN-rail adapter: Slanted
 Material: Plastic
 Colour: light grey
 RAL colour: RAL7035
 Dimensions (WxHxD): 22 x 61 x 54 mm

Art.-No.	Number of ports	Assembly	Colour of adapter
FTTH-DINRAIL-LC	2	1x LC-Duplex	blue
FTTH-DINRAIL-LCA	2	1x LC-Duplex	green
FTTH-DINRAIL-SC	1	1x SC-Simplex	blue
FTTH-DINRAIL-SCA	1	1x SC-Simplex	green



House Connection Box (APL) IP54 for FTTH - Applications - Model S

Foreign body and contact protection: Protection against ingrees of dust
 Water protection: Protection against splashing water
 Type of Splice protection: crimp & shrink
 Scope of application: Outdoor
 Mounting: Wall mounting
 Possibility of mast mounting: False
 Material: plastic
 Colour: white

Art.-No.	Cable entry without cable gland	Cable entry with cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
53706.1		3	12	210 x 175 x 45 mm	-25 – 70 °C	lock
53706.2		3	12	210 x 175 x 45 mm	-25 – 70 °C	without



Multi System Fiber Optic - Outlet

Clip and screw locking of the adapter plates
 Delivery Incl. 9 **unassembled** adapter plates
 For SC-simplex, SC-duplex, E2000®-simplex, MTRJ, AMP/MTRJ, ST, FC, DIN, LC-duplex and a blanking plate

Outlet direction:..... straight
 Dust protection cap:.....without
 Material bearing ring:Zinc alloy
 Material central plate:.....ABS plastic
 Material adapter plates:ABS plastic
 Max. Assembly (Adapter): ...2
 With bus/coupling:.....False
 Surface mounting:True
 Flush mounted (plaster):.....True
 Duct installation:.....True

Art.-No.	Colour	Dimensions
ET-25170	white	80 x 80 mm



Fiber Optic Frame Set

Included:
 1 x metal frame
 1 x plastic cover
 1 x plastic central plate
 4 x M2-screws

Outlet direction:..... angled
 Dust protection cap:..... without
 Material bearing ring: Zinc alloy
 Material central plate:..... ABS plastic
 Max. Assembly (Adapter):..... 2
 With bus/coupling: False
 Surface mounting: yes
 Flush mounted (plaster):..... yes
 Duct installation:..... yes

Art.-No.	Colour	Suitable for adapter	Central plate according to	Dimensions
ET-25085F0	white	SC Simplex/LC Duplex/E2000®	DIN 49075	80 x 80 mm



FTTH In Wall outlet with fiber overlength

Fiber Optical flush-mounted data outlet to accommodate 2 SC-Simplex adapter or 2 LC-Duplex adapter. The data outlet is equipped with couplings in the classes OM3, OM4 or OS2 including shutter. **The highlight of this flush-mounted data outlet is that it not only has an integrated receptacle for excess fiber lengths, but also has a receptacle for splice protection (4x crimp or 4x shrink).** Depending on the application, the holder can also be dismantled so that it does not get in the way when pre-assembled cables are installed.

Performance features:

Horizontal and vertical installation in the cable duct or flush mounting
 Recording of fiber overlengths
 Integrated splice protection for 4 splices
 Cover 80mm x 80mm
 Data outlet depth of 40mm for installation in flush-mounted boxes or cavity wall boxes

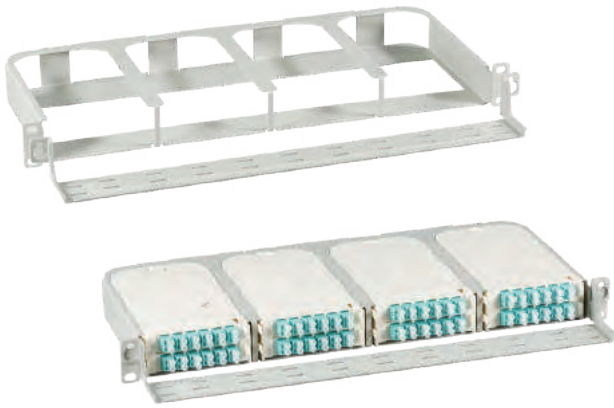


Adapter frame for design compatibility for ET-25092.x and FTTH-OUTLET-xx with various switch programmes

Art.-No.	Description	Colour
ET-25092.5	Adapter frame design compatibility with Berker, RAL9003	white
ET-25092.6	Adapter frame design compatibility with Jung, RAL9003	white
ET-25092.7	Adapter frame design compatibility with Merten, RAL900	white
ET-25092.8	Adapter frame design compatibility with Gira, RAL9003	white

Art.-No.	Colour	Equipped with adapter	Central plate according to	Dimensions
FTTH-OUTLET-LC-SMAPC	white	2x LC Duplex APC green	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-LC-OS2	white	2x LC Duplex blue	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-LC-OM4	white	2x LC Duplex erica-violet	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-LC-OM3	white	2x LC Duplex aqua	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-SC-SMAPC	white	2x SC Simplex APC green	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-SC-OS2	white	2x SC Simplex blue	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-SC-OM4	white	2x SC Simplex erica-violet	DIN 49075	80 x 80 x 40 mm
FTTH-OUTLET-SC-OM3	white	2x SC Simplex aqua	DIN 49075	80 x 80 x 40 mm

Outlet direction:..... down
 Dust protection cap:..... shutter
 Material bearing ring: Zinc alloy
 Material central plate:..... ABS plastic
 Material adapter plates: ABS plastic
 Max. Assembly (Adapter): ...2
 With bus/coupling:yes
 Surface mounting:No
 Flush mounted (plaster):..... yes
 Duct installation:.....yes

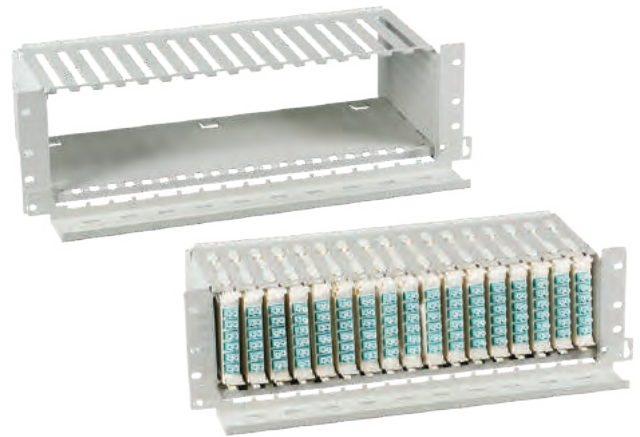


FTTH 19" 1U Subrack for 8x Module FTTH-MODUL-X

19" subrack for FTTH-MODUL-XX (delivery without modules)
 Up to 96 LC ports to 1 unit
 with front-sided cable tray
 delivery without modules

Material: Steel sheet
 Surface finishing: With powder coating
 Type of enclosure: open
 With ventilation slots: yes
 Degree of protection (IP): IP20
 Width: 483 mm
 Height: 44.5 mm
 Depth: 190.0 mm

Art.-No.	max. Modules	max. Ports	Colour
FTTH-BGT-1HE	8	96 LC / 48 SC	grey



FTTH 19" 3U Subrack for 17x Modul FTTH-MODUL-X

19" subrack for FTTH-MODUL-XX (delivery without modules)
 Up to 204 LC ports to 3 units
 with front-sided cable tray
 delivery without modules

Material: Steel sheet
 Surface finishing: With powder coating
 Type of enclosure: open
 With ventilation slots: yes
 Degree of protection (IP): IP20
 Width: 483 mm
 Height: 135 mm
 Depth: 190.0 mm

Art.-No.	max. Modules	max. Ports	Colour
FTTH-BGT-3HE	17	204 LC / 102 SC	grey



FTTH Cassette for FTTH-BGT

Suitable for 1U and 3U subrack FTTH-BGT-xHE
 Pre-equipped with adapter in single mode, multimode OM4 or multimode OM3 with ceramic ferrule
 Inclined outlet left/right for the 1U version, top/bottom outlet for the 3U version
 Cable entry via MTP®/MPO adapter
 Splice cassette (Shrink -and Crimpprotection) holder included in cassette for MTP®/ MPO free installation

Number of height units: 0.5
 With Pigtail: No

Delivery without Pigtail and MTP®/MPO adapter

Art.-No.	Modules	Quantity adapter	Adapter	APC	Adapter Colour
FTTH-MODUL-LCAPC	Singlemode	6	LC duplex	yes	green
FTTH-MODUL-LCOS2	Singlemode	6	LC duplex	No	blue
FTTH-MODUL-LCOM4	Multimode OM4	6	LC duplex	No	erica-violet
FTTH-MODUL-LCOM3	Multimode OM3	6	LC duplex	No	aqua
FTTH-MODUL-SCOS2	Singlemode	6	SC	No	blue
FTTH-MODUL-SCOM4	Multimode OM4	6	SC	No	erica-violet
FTTH-MODUL-SCOM3	Multimode OM3	6	SC	No	aqua



YOU ARE LOOKING FOR TRUNK CABLES? YOU WILL FIND THEM FROM PAGE 71

FTTH Dropcable SC pre-assembled

One-sided pre-assembled fiber optic drop cable with one SC/PC connector and one SC/APC connector. Fittingly assembled to be used in CPE's due to a different whip length of the two fibers.

20 - 30 - 40 - 50 m

Art.-No.	Cable type	Cable Ø	Colour outer sheath	Side A	Side 2A	Side 2B	Fiber type	Category
FTTH-DROP-SC-xx	Breakout	3 mm	white	open	1 x SC/APC 9/125µ	1 x SC 9/125µ	Singlemode	G657A2

FTTx Compact Box pre-assembled

Scope of application:Inside
 Mounting:.....Wall mounting
 Material:Plastic halogen free
 Colour:white
 Number of adapters:2
 IP Protection:.....IP20
 Dimensions:.....100 x 80 x 22 mm

10m - 20m - 30m - 40m - 50m - 60m - 70m - 80m



Art.-No.	Fiber type	Fiber category	Cable diameter	Material outer sheath	Colour outer sheath	Adapter
53670.x	Singlemode	G657.A2	2.2 mm	LSZH	white	LC duplex
53680.x	Singlemode	G657.A2	2.2 mm	LSZH	white	SC simplex

FTTx DIN RAIL Adapter, Laser protection integrated

Scope of application:Inside
 Mounting:.....DIN Rail
 Material:Plastic halogen free
 Colour:white
 RAL colour:.....RAL9010
 Number of adapters:4
 IP Protection:.....IP30
 Dimensions:.....89.5 x 35 x 51.5 mm

15m - 30m - 50m - 100m



Art.-No.	Fiber type	Fiber category	Cable diameter	Material outer sheath	Colour outer sheath	Adapter
53681.x	Singlemode	G657.A2	4.1 mm	LSZH	ivory	1x SC simplex
53682.x	Singlemode	G657.A2	4.1 mm	LSZH	ivory	2x SC simplex
53683.x	Singlemode	G657.A2	4.1 mm	LSZH	ivory	4x SC simplex

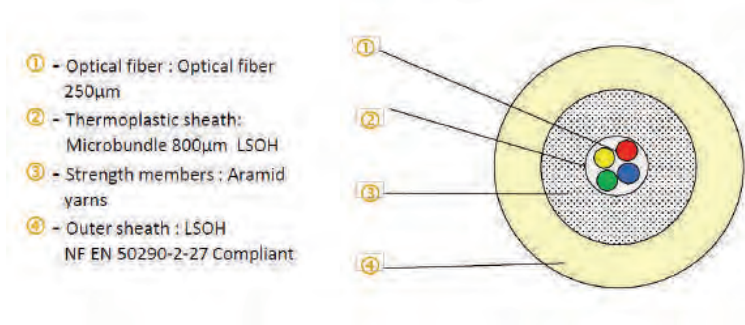


Broadband Cable MDIC - Micro Drop Installation Cable

Delivery: 750 m Box

Material outer sheath:.....LSZH
 Colour outer sheath:.....white
 Temperature Range (Operation):.....-30..70 – °C
 Temperature Range (Storage):.....-30..70 – °C
 Temperature Range (Installation):.....-10..50 – °C
 IL max. (dB/km) 1310nm:.....0,35
 IL max. (dB/km) 1550nm:.....0,22
 Cabling standards:EN 50173-1;ISO/IEC 11801
 Transmission standards:.....IEEE 802.3 10Mbit bis 100Gbit

Art.-No.	Construct	Cable Ø	Weight	Bending radius	Tensile Force
56204.3	2 x Singlemode G.657.A1	2,0 x 3,1 mm	10 kg/km	30 mm	150 N
56204.4	4 x Singlemode G.657.A1	3,7 mm	16 kg/km	37 mm	150 N



FTTH Indoor Drop Cable LSZH

Material outer sheath:.....LSZH
 Euro Class:Dca
 Colour outer sheath:.....ivory
 Temperature Range (Operation):.....-5 – 60 °C
 Temperature Range (Storage):.....-40 – 70 °C
 Temperature Range (Installation):.....-5 – 50 °C
 Rayleigh Backscatter Coefficient 1310nm:.....1,467
 Rayleigh Backscatter Coefficient 1550nm:.....1,468
 Rayleigh Backscatter Coefficient 1625nm:.....1,468
 IL max. (dB/km) 1310nm:.....0,36

Art.-No.	Construct	Cable Ø	Weight	Bending radius	Tensile Force
FTTH-DROP-2	2 x Singlemode G.657.A2	3,0 mm	11 kg/km	20 mm	15da N
FTTH-DROP-4	4 x Singlemode G.657.A2	2,65 mm	6.5 kg/km	15 mm	15da N



DOMESTIC CONNECTION WITH OPTICAL FIBER CABLING

Certain basic conditions have to be created for the successful installation of an FTTH network.

The building should have an accessible installation location for a building interconnection point. This location should not be more than 1.5 m from the building infeed. The building connection requires an area of approx. 0.8 m x 0.8 m.

The building should already be cabled with optical fiber from the building interconnection point to the interior area.

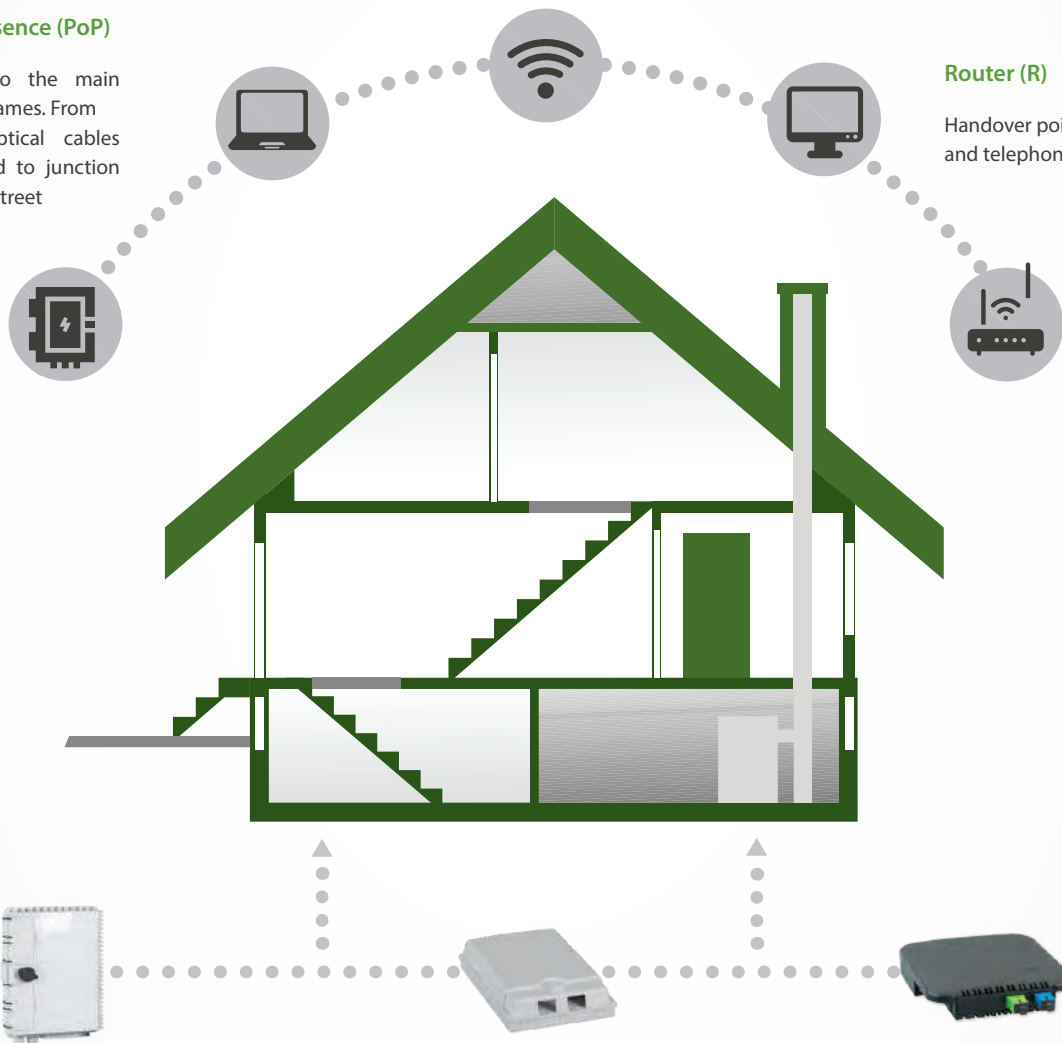
The optical fiber box can be placed in any location. The ONT is installed beside it. Two Schuko sockets are required for the ONT and a router. The distance between the socket and the ONT may not be more than 1 m.

Point of Presence (PoP)

This refers to the main distribution frames. From here, the optical cables are connected to junction boxes on the street

Router (R)

Handover point for internet and telephone.



Building Entry Point (BEP)

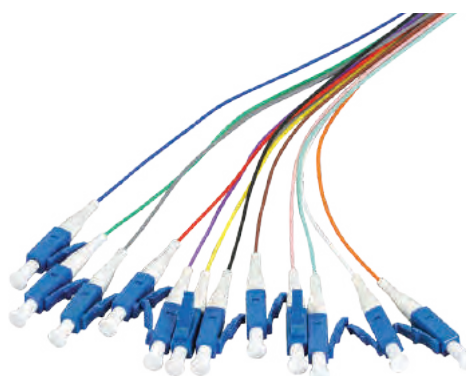
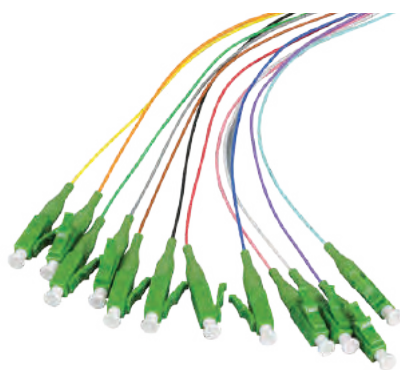
The building entry point is where the optical cable enters the building. The BEP is placed about 1.5 m from the house lead-in and is installed in the basement or the building terminal compartment.

Optical Network Termination (ONT)

The ONT is the consumer end termination box. This is where the optical signal from the optical cable is converted into an electronic signal. The ONT also serves as the termination point of the FTTH network.

Optical Distribution Point (ODP)

Handover and termination of the optical Fiber up to the interior using an optical splitter or a Fiber optic port.

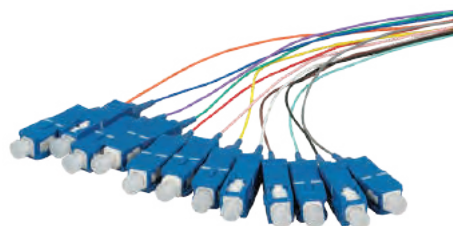
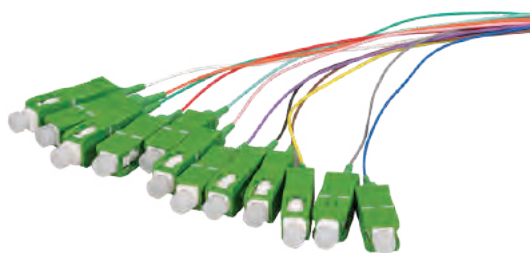


FTTH Fiber pigtail LC

Insertion loss 1310nm:< 0.3 dB
 Max. Tension:.....3 N
 Min. Bending Radius Static:9 mm
 Min. Bending Radius Dynamic: 18 mm
 Outer Diameter: 0.9 mm
 Jacket Material:..... LSZH
 Length: 2.0 m
 Operating Temperature:..... -20 – 70 °C
 Connector Conform to Standard: ..IEC61754-20
 Cable Conform to Standard:IEC60793-2


 MORE PIGTAIL
 VARIANTS FROM
 P. 88

Art.-No.	Category	Colour	APC-version	Connector Colour
FTTH-PIGTAIL-LCA1	G657A2 acc. to ITU-T G.657	yellow	True	green
FTTH-PIGTAIL-LC1	G657A2 acc. to ITU-T G.657	yellow	False	blue
FTTH-PIGTAIL-LCA12	G657A2 acc. to ITU-T G.657	12-colours	True	green
FTTH-PIGTAIL-LC12	G657A2 acc. to ITU-T G.657	12-colours	False	blue



FTTH Fiber pigtail SC

Insertion loss 1310nm:.....< 0.3 dB
 Max. Tension:.....3 N
 Min. Bending Radius Static:9 mm
 Min. Bending Radius Dynamic: 18 mm
 Outer Diameter:0.9 mm
 Jacket Material:..... LSZH
 Length: 2.0 m
 Operating Temperature:..... -20 – 70 °C
 Connector Conform to Standard: IEC61754-4
 Cable Conform to Standard:.....IEC60793-2

Art.-No.	Category	Colour	APC-version	Connector Colour
FTTH-PIGTAIL-SCA1	G657A2 acc. to ITU-T G.657	yellow	True	green
FTTH-PIGTAIL-SC1	G657A2 acc. to ITU-T G.657	yellow	False	blue
FTTH-PIGTAIL-SCA12	G657A2 acc. to ITU-T G.657	12-colours	True	green
FTTH-PIGTAIL-SC12	G657A2 acc. to ITU-T G.657	12-colours	False	blue



Type	PLC Splitter
Wavelength	1260nm to 1650nm
Splitting	Same split for all outputs
Performance	good for all splits, high grade of reliability and stability
Input/ Output	One or two inputs with a maximum of 64 outgoing fibers

PLC Splitter

Singlemode G657A1 Fiber
 900µm Fiber
 Entry side without connector
 Output side with SC/APC connector
 Main application in optical distributor boxes

Type of accessory/spare part:PLC Splitter
 Number of connectors front side: open
 Colour:Aluminium
 Application:CATV

Art.-No.	Connection type front side	Connection type backside	Split	length	width	heights	Insertion loss (inc. connector)
FTTH-PLC4-LCA	open	LC/APC	1 to 4	55 mm	7 mm	4 mm	<7,4 dB
FTTH-PLC8-LCA	open	LC/APC	1 to 8	55 mm	7 mm	4 mm	<10,5 dB
FTTH-PLC16-LCA	open	LC/APC	1 to 16	60 mm	12 mm	4 mm	<13,8 dB
FTTH-PLC32-LCA	open	LC/APC	1 to 32	80 mm	20 mm	6 mm	<17 dB
FTTH-PLC64-LCA	open	LC/APC	1 to 64	100 mm	40 mm	6 mm	<20,6 dB
FTTH-PLC4-SCA	open	SC/APC	1 to 4	55 mm	7 mm	4 mm	<7,4 dB
FTTH-PLC8-SCA	open	SC/APC	1 to 8	55 mm	7 mm	4 mm	<10,5 dB
FTTH-PLC16-SCA	open	SC/APC	1 to 16	60 mm	12 mm	4 mm	<13,8 dB
FTTH-PLC32-SCA	open	SC/APC	1 to 32	80 mm	20 mm	6 mm	<17,0 dB
FTTH-PLC64-SCA	open	SC/APC	1 to 64	100 mm	40 mm	6 mm	<20,6 dB



YOU WILL FIND SUITABLE TOOLS ON PAGE 96

Field Installable Connector with fiber holder

Material of ferrule:ceramic
 Connection type:clamp
 Cable Ø:0.9 mm

12er Set field installable SC/APC connectors OS2 green, with fiber holder

Art.-No.	Suitable for type of fiber	Type of connector	Colour	Insertion Loss	Return Loss
53196.1	Singlemode	LC	blue	0.5 dB	>55 dB
53197.1	Multimode	LC	aqua	0.3 dB	>35 dB
53198.1	Multimode	LC	black	0.3 dB	>35 dB
53199.1	Singlemode	SC	blue	0.5 dB	>55 dB
53200.1	Multimode	SC	aqua	0.3 dB	>35 dB
53201.1	Multimode	SC	black	0.3 dB	>35 dB
53204.1	Singlemode	SC	Green	0.3 dB	>55 dB



Wall mounting box for XON1300 & APL

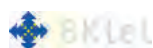
Foreign body and contact protection:.....Protection against medium-sized foreign bodies
 Water protection:.....Without protection
 Type of Splice protection:.....crimping/thermo
 Scope of application:Inside
 Mounting:.....Wall mounting
 Possibility of mast mounting:No
 Material:Plastic
 Colour:white

Art.-No.	Cable entry without cable gland	Number of Fibers	Dimensions	Temperature Range	Access Control
XON30	4	2	48 x 150 x 150 mm		without



Passive Network termination, optical CATV, without XON30 housing

Art.-No.	Mounting method
XON1300.P	empty chassis



Gigabit Ethernet Switch, 4xLAN, without XON30 housing

Art.-No.	Number of ports 10/100/1000 Mbps RJ45	Mounting method
XON1300.S	4	empty chassis
XON1300.SC	4	empty chassis

FIBER OPTIC CLOSURES & SPLICER SLEEVES //



Outdoor Closures	P. 35
Dome Closures	P. 36 - 37
Junction Closures	P. 38 -39

// YOU MAY ALSO BE INTERESTED IN:

Fiber Optic Installation Cable	P. 62
Accessory /Splice Cassette, Splice Protection)	P. 59
Tools	P. 96
Splicing & Measurement Equipment	P. 104



83189.3

48 SPLICING
POSSIBILITIES IN
THE SMALLEST
SPACE



83189.1



83187.1

Outdoor Pipe Closures

Material: plastic
 Colour: Green
 Operating Temperature: -30 – 65 °C
 Splice Cassette: integrated
 Degree of protection (IP): IP68
 Direct Burial: True



83187.5

Art.-No.	Suitable for number of fibers	In-/Output	Cable Diameter	Length of housing	Diameter of housing	Splice Holder	Type of closure
83187.1	24	2	3.5 – 10.7 mm	307 mm	69 mm	crimp	Connecting closure
83189.1	24	3	3.5 – 10.7 mm	307 mm	69 mm	shrink	Junction closure
83189.3	48	3	7 – 17 mm	360 mm	101 mm	crimp	Junction closure

Accessory

Art.-No.	Description
83189.3S	Key for FDM-2 (1 piece), for 83189.3
83187.5	Key-Set for FDM-1 (2 pieces), for 83187.1 & 83189.1
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100

ASSEMBLE DOME CLOSURES ACCORDING TO YOUR REQUIREMENTS

Step 1: Selection of housing type

Dome closure FOC, round Ø 285 mm, protection degree IP68

Two oval ports for uncut tubes or loop-cable
 Eight round ports with each 32mm diameter
 Cable entries with mechanical seal at customers choice, see accessories
 Splice trays with crimp- or heat splice holder, see accessories

Dome closure CFOC, flach 290 x 150 mm, protection degree IP68

One oval port for uncut tubes or loop-cable
 Six round ports with each 32mm diameter
 Cable entries with mechanical seal at customers choice, see accessories
 Splice trays with crimp- or thermo splice holder, see accessories



Design: round
 Height: 525 mm



2 x oval entry
 8 x round entry



Design: flat
 Height: 380 mm



Design: flat
 Height: 450 mm



1 x oval entry
 6 x round entry

Standards

Direct burial (underground) or for areal-applications (overground)
 Protection degree: IP68, Material: plastic, Colour: black

Temperature Range

Operation: -40°C .. +70°C
 Transport /Storage: -10°C .. +40°C

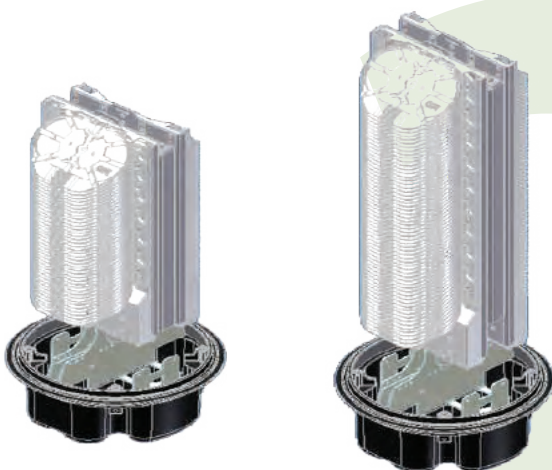
capacity: Tray count / Fiber count

Art.-No.	STHD2-6-12A (ANT)	STHD2-6-12H (Heat)	STHD2-4-12A (ANT)	STHD2-4-12H (Heat)
FOC2-CB	84 / 1008	84 / 1008	56 / 672	56 / 672

capacity: Tray count / Fiber count

Art.-No.	STHD2-6-12A (ANT)	STHD2-6-12H (Heat)	STHD2-4-12A (ANT)	STHD2-4-12H (Heat)
CFOC2-AA	18 / 216	18 / 216	12 / 144	12 / 144
CFOC2-AB	30 / 360	30 / 360	20 / 240	20 / 240

Step 2: Selection of tray type



Shelf tray set height 4 mm / 6 mm - both variants suitable for both housing types (round/flat)

- Shelf tray set with 4 mm height
- For high density

or

- Shelf tray set with 6 mm height
- For optimised fiber management

Art.-No.	Tray set count	Splices	Splice protection	Height
STHD2-6-12A	6 cassettes	72 (6 x 12)	Crimp (ANT)	4 mm
STHD2-6-12H	6 cassettes	72 (6 x 12)	Thermo (Heat)	4 mm
STHD-COVER	cover for STHD2-6A, STHD2-6H, STHD2-4A and STHD2-4H			

Art.-No.	Tray set count	Splices	Splice protection	Height
STHD2-4-12A	4 cassettes	48 (4 x 12)	Crimp (ANT)	6 mm
STHD2-4-12H	4 cassettes	48 (4 x 12)	Thermo (Heat)	6 mm
STHD-COVER	cover for STHD2-6A, STHD2-6H, STHD2-4A and STHD2-4H			

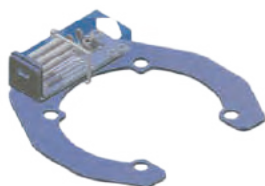
Step 3: Selection of cable entries



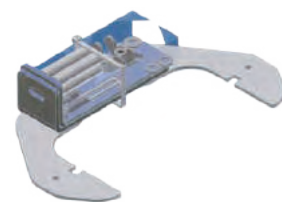
Cable entries with mechanical sealing
Multiple cable entries for small diameter

Art.-No.	Entries/ Outlets	Suitable for cable	Design
FOC-MRS-6X8	6 x 8 mm	max. 6 x 4 .. 8 mm	round
FOC-MRS-16X3	16 x 3 mm	max. 16 x 0 .. 3 mm	round
FOC-MRS-1X20	1 x 20 mm	max. 1 x 10 .. 20 mm	round
FOC-MRS-2X12	2 x 12 mm	max. 2 x 8 .. 12 mm	round
FOC-MOS-2X20	2 x 20 mm	max. 2 x 10 .. 20 mm	flat
FOC-MOS-4X10	4 x 10 mm	max. 4 x 5 .. 10 mm	flat

Step 4: Selection of accessories



Mounting bracket for FOC (round)



Mounting bracket for CFOC (flat)



Cable fixing bracket for FOC + CFOC
(round + flat)



Pole mounting bracket for FOC + CFOC
(round + flat)

Art.-No.	Description	Closure type
FOC-MB	Mounting bracket for dome closure round	FOC round
CFOC-MB	Mounting bracket for dome closure flat	CFOC flat
FOC-CFB	Cable fixing bracket for round or flat	FOC + CFOC
FOC-PMB	Pole mounting bracket for round or flat	FOC + CFOC

Further closures or special types on request !

Shop comfortably now: www.efb-elektronik.de/en



FO Junction Splice Closure Outdoor II

Suitable for number of fibers: ..24
 In-/Output:4
 Cable Diameter:8 – 23 mm
 Dimension (LxBxH):470 x 123 x 104 mm
 Material:plastic
 Operating Temperature:.....-40 – 70 °C
 Splice Cassette:.....integrated
 Splice Holder:.....crimp
 Degree of protection (IP):IP68
 Direct Burial:True

Art.-No.	Type of closure
83184.1	Junction closure

Accessory

Art.-No.	Description
53100.200	Splice cassette w/o Logo white
53100.201	Splice cassette cover, white
53100.21	Spliceholder for 12 arc splices
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
53100.8	Splice holder for 6 x arc splices with shrink tube, black
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100

SUITABLE
 FIBER OPTIC
 OUTDOOR
 CABLES & UNIVER-
 SAL CABLES
 FROM P. 62



FO Splice Closure Outdoor 3M

Suitable for number of fibers: 48
 In-/Output:4
 Cable Diameter:10 – 25 mm
 Dimension (LxBxH):399 x 175 x 107 mm
 Material:plastic
 Operating Temperature:.....-45 – 60 °C
 Splice Cassette:.....without cassette
 Splice Holder:.....without
 Degree of protection (IP):IP68
 Direct Burial:True

Art.-No.	Type of closure
83200.1	Junction closure

Accessory

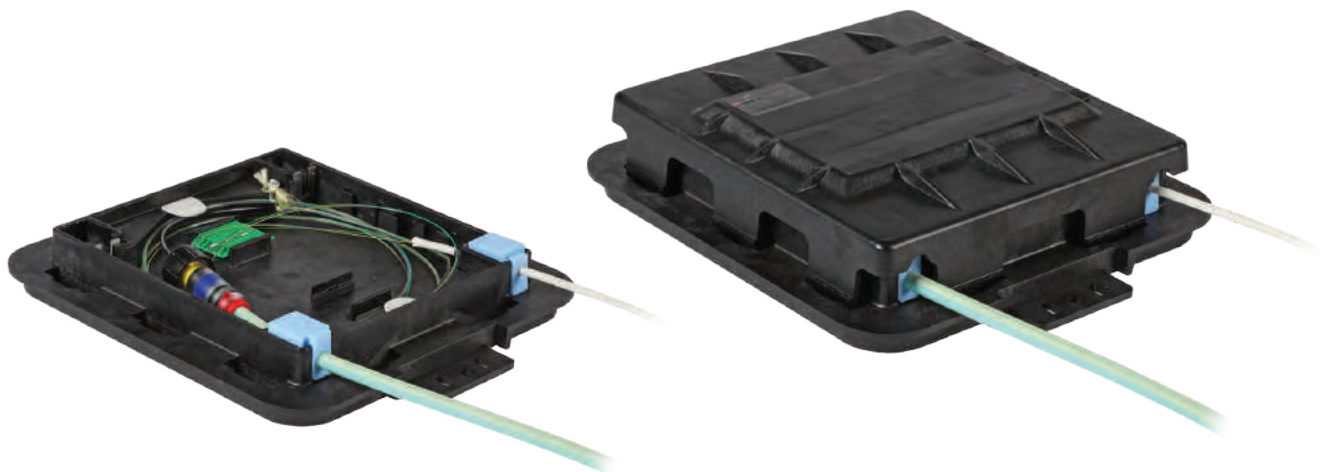
Art.-No.	Description
53100.200	Splice cassette w/o Logo white
53100.201	Splice cassette cover, white
53100.21	Spliceholder for 12 arc splices
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
53100.8	Splice holder for 6 x arc splices with shrink tube, black



Inline-closure for 24 splices

Suitable for number of fibers: 24
 In-/Output: 4
 Cable Diameter: – 22 mm
 Dimension (LxBxH): 369 x 182 x 106 mm
 Material: plastic
 Operating Temperature: -30 – 60 °C
 Splice Cassette: integrated
 Splice Holder: crimp
 Degree of protection (IP): IP68
 Direct Burial: True

Art.-No.	Type of closure
83127.1V2	Junction closure

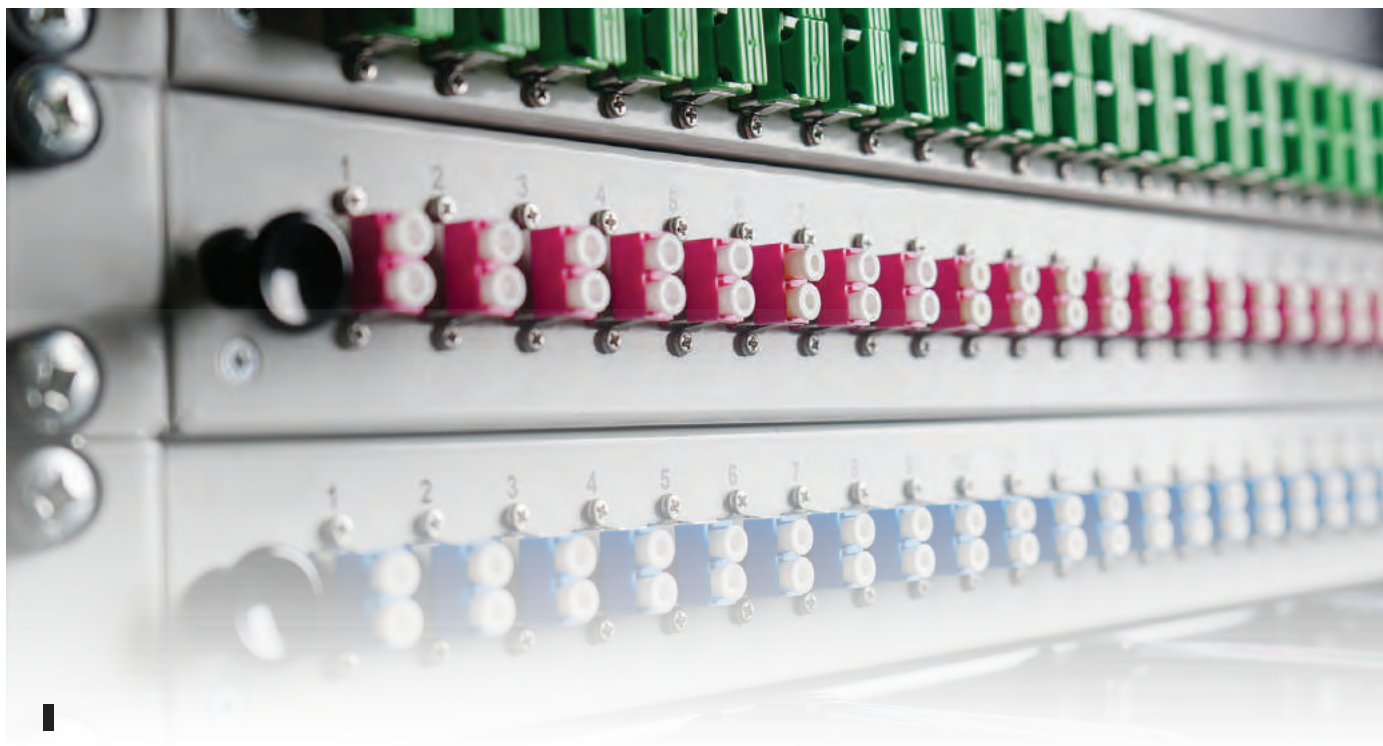


FO Splice Closure compact

Suitable for number of fibers: 12
 In-/Output: 4
 Cable Diameter: 4 – 9 mm
 Dimension (LxBxH): 194 x 232 x 42 mm
 Material: plastic
 Operating Temperature: -45 – 60 °C
 Splice Cassette: integrated
 Splice Holder: crimp
 Degree of protection (IP): IP68
 Direct Burial: True

Art.-No.	Type of closure
83205.1	Junction closure

SPLICE BOXES, DISTRIBUTORS, SUBRACKS & ACCESSORIES //



19" Splice Boxes	P. 42 - 47
Front panel unequipped	P. 46
Pre-assembled splice cassettes	P. 48
Pre-assembled front panel	P. 49
Distributors	P. 50 - 56
Data outlets	P. 57
Accessories	P. 59 - 60
Subracks	P. 60 - 61

// YOU MAY ALSO BE INTERESTED IN:

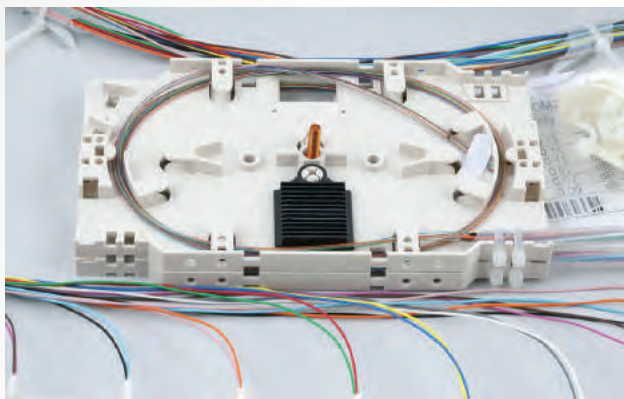
19" Network Cabinets	P. 184
Adapters	P. 92 - 94
Transceiver	P. 330



SPLICE BOXES 19"/1U COMPLETELY EQUIPPED AND READY TO SPLICE

Order code for the splice box prepared ready for splicing:
Each completely equipped splice box can also be ordered ready for splicing.

By adding an A to the partnumber you can order a box with stripped pigtails. The number behind the dot shows the number of assembled pigtails.



LC Pigtails to LC Adapters completely equipped, slide-out splice box 19" 1U, RAL7035, ready to splice

Art.-No.	Description
BA71902.xxOM4	Splice Box LC-Duplex completely equipped, sliding version, ready to splice

Colour code DIN VDE0888

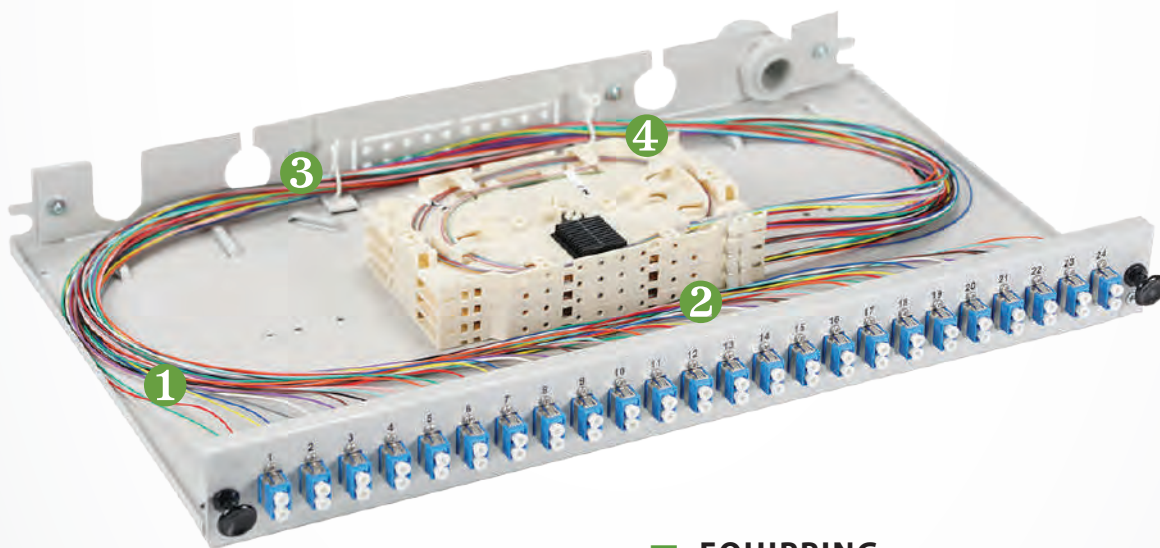
RD	GN	BL	YE	WT	GR	BN	VT	TQ	BK	OR	PK
1: RD	2: GN	3: BL	4: YE	5: WT	6: GR	7: BN	8: VT	9: TQ	10: BK	11: OR	12: PK

Prepared ready to splice:

The colour coded pigtails are according to colour code DIN VDE0888 assembled into the feedthrough adapters. The 900µ fibers are properly laid through the fiber guides in the splice box and inserted into the splice cassette.

In the splice cassette the secondary coating (900µ) of the fibers is deposited in a length-adjusted manner. The 250µ fibers are guided in the splice cassette and shortened to the same length.

The coloured primary coating (250µ) makes colour allocation easy.



- 1 Fiber pigtails with through-dyed, colour-coded primary and secondary coating.
- 2 Plugged into the feedthrough adapters according to colour code DIN VDE0888.
- 3 Proper fiber guidance in the splice box.
- 4 Fibers inserted into the splice cassette, set down and shortened.

EQUIPPING

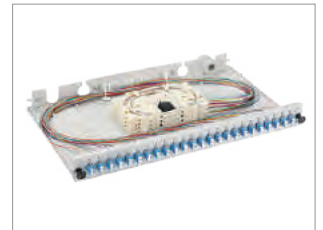
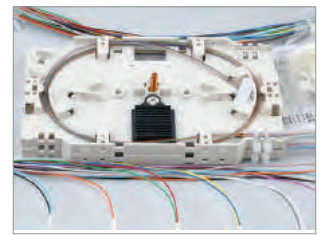
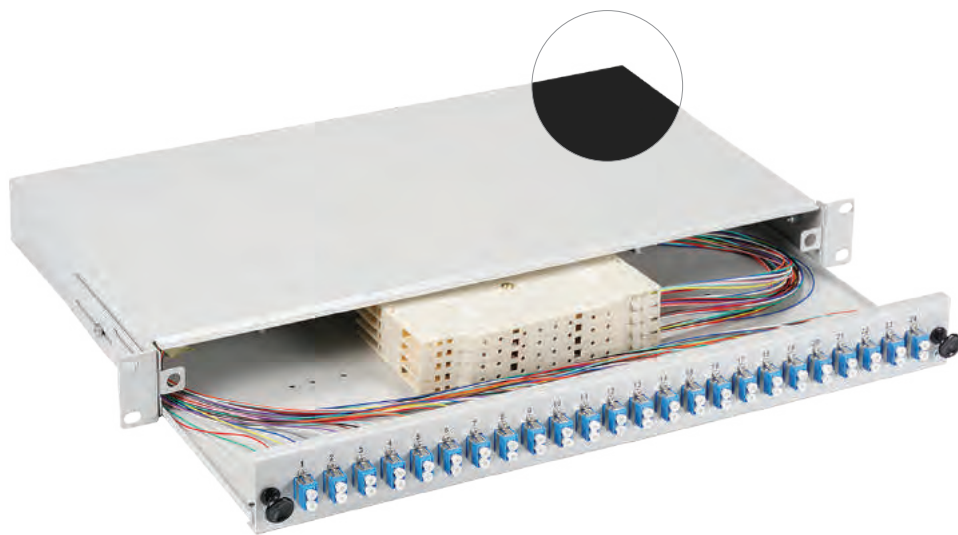
In the shortest possible time, individual customer orders are prepared „just-in-time“ in the company’s own production facilities ready for splicing and delivered on schedule. In order to keep the delivery time as short as possible, we have an extensive range of products in stock for you.

WIDE RANGE OF PRODUCTS

The high availability of our stock of semi-finished products enables us to offer a wide range of products. This provides the right product for every application with spliced or pre-assembled variants.

SPECIAL VARIANTS

Ask for special variants, e.g. OM4 and OS2 mixed, our production department will find the right solution for you.



Completely assembled splice box with adapters and coloured pigtails
 Metal housing, depth adjustable
 Cable entries at the rear, incl. 1 x PG16
 6 x self adhesive fiber tray
Special assembly possible at short notice!

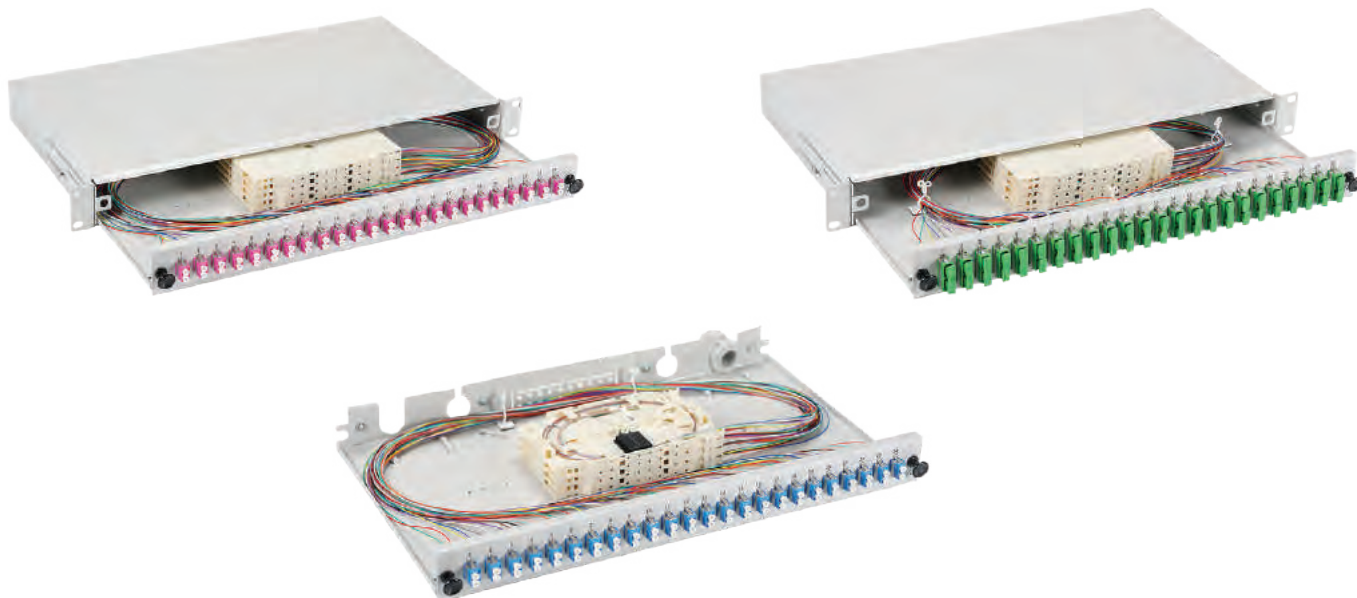
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Completely Assembled Splice Box LC, Standard

Art.-No.	Fiber class	Fiber type	Adapter colour	Pigtail	With number of adapters	Colour
BA71920.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x LC/APC, stripped	6 - 12 - 24	grey
BA71921.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71921TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, stripped	6 - 12 - 24	black
BA71901.xxOM5	OM5	Multimode 50/125	lime green	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71901.xxOM4	OM4	Multimode 50/125	violet	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71901.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71921SA.xx ①	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71901V.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
B71920.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x LC/APC, not stripped	6 - 12 - 24	grey
B71921.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71921TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
B71901.xxOM5	OM5	Multimode 50/125	lime green	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71901.xxOM4	OM4	Multimode 50/125	violet	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71901TS.xxOM4	OM4	Multimode 50/125	violet	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
B71901.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71901TS.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
B71921SA.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
BA71922.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71922TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	black
BA71924.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC/APC, stripped	6 - 12 - 24	grey
BA71902.xxOM4	OM4	Multimode 50/125	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71902TS.xxOM4	OM4	Multimode 50/125	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	black
BA71902.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	grey
BA71902TS.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48 x LC, stripped	6 - 12 - 24	black
B71922.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71922TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
B71924.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x LC/APC, not stripped	6 - 12 - 24	grey
B71902.xxOM4	OM4	Multimode 50/125	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71902TS.xxOM4	OM4	Multimode 50/125	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black
B71902.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	grey
B71902TS.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48 x LC, not stripped	6 - 12 - 24	black

① Angled outlet

Note: xx set number of Pigtails. Preferred storage types see table.



Completely Assembled Splice Box SC, Standard

Art.-No.	Fiber class	Fiber type	Adapter colour	Pigtail	With number of adapters	Colour
BA71223.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x SC, stripped	6 - 12 - 24	grey
BA71223TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x SC, stripped	6 - 12 - 24	black
BA71228.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x SC/APC, stripped	6 - 12 - 24	grey
BA71228TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x SC/APC, stripped	6 - 12 - 24	black
BA71203.120M5	OM5	Multimode 50/125	lime green	12 - 24 - 48 x SC, stripped	6 - 12 - 24	grey
BA71203.xxOM4	OM4	Multimode 50/125	violet	12 - 24 - 48 x SC, stripped	6 - 12 - 24	grey
BA71203TS.xxOM4	OM4	Multimode 50/125	violet	12 - 24 - 48 x SC, stripped	6 - 12 - 24	black
BA71203.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x SC, stripped	6 - 12 - 24	grey
BA71203TS.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x SC, stripped	6 - 12 - 24	black
B71223.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	grey
B71223TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	black
B71228.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x SC/APC, not stripped	6 - 12 - 24	grey
B71203.120M5	OM5	Multimode 50/125	lime green	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	grey
B71203.xxOM4	OM4	Multimode 50/125	violet	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	grey
B71203TS.xxOM4	OM4	Multimode 50/125	violet	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	black
B71203.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	grey
B71203TS.xxOM3	OM3	Multimode 50/125	aqua	12 - 24 - 48 x SC, not stripped	6 - 12 - 24	black

Completely Assembled Splice Box E2000®

Art.-No.	Fiber class	Fiber type	Adapter colour	Pigtail	With number of adapters	Colour
BA71503.xxOM4	OM4	Multimode 50/125	beige	12 - 24 - 48 x E2000®, stripped	6 - 12 - 24	grey
BA71503.xxOM3	OM3	Multimode 50/125	beige	12 - 24 - 48 x E2000®, stripped	6 - 12 - 24	grey
BA71503.xx	OM2	Multimode 50/125	beige	12 - 24 - 48 x E2000®, stripped	6 - 12 - 24	grey
BA71523.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	12 - 24 - 48 x E2000®, stripped	6 - 12 - 24	grey
BA71533.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x E2000®/APC, stripped	6 - 12 - 24	grey
BA71533TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x E2000®/APC, stripped	6 - 12 - 24	black
B71503.xxOM3	OM3	Multimode 50/125	beige	12 - 24 - 48 x E2000®, not stripped	6 - 12 - 24	grey
B71503.xx	OM2	Multimode 50/125	beige	12 - 24 - 48 x E2000®, not stripped	6 - 12 - 24	grey
B71533TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 - 24 - 48 x E2000®/APC, not stripped	6 - 12 - 24	black
BA71533SA.xx ^①	OS2 acc. to ITU-T G.652.D	Singlemode	green	12 x E2000®/APC, stripped	12	grey

① Angled outlet

Completely Assembled Splice Box ST, Standard

Art.-No.	Fiber class	Fiber type	Adapter colour	Pigtail	With number of adapters	Colour
BA71006.xxOM4	OM4	Multimode 50/125	metal	12 - 24 - 48 x ST, stripped	6 - 12 - 24	grey
BA71006.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48 x ST, stripped	6 - 12 - 24	grey
BA71006.xx	OM2	Multimode 50/125	metal	12 - 24 - 48 x ST, stripped	6 - 12 - 24	grey
BA71023.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	12 - 24 - 48 x ST, stripped	6 - 12 - 24	grey
B71006.xxOM4	OM4	Multimode 50/125	metal	12 - 24 - 48 x ST, not stripped	6 - 12 - 24	grey
B71006.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48 x ST, not stripped	6 - 12 - 24	grey
B71006TS.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48 x ST, not stripped	6 - 12 - 24	black



Partially Assembled Splice Box

Partly assembled splice box with adapters
 Per 12 adapters, 1 splice cassette with 1 splice holder
 Suitable up to 4 splice cassettes
 Metal housing **depth adjustable**
 Front panel screwed
coloured adapters
 cable entries at the rear

Partially Assembled Splice Box LC-Duplex, non sliding unit

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B61901.xxOM4	OM4	Multimode 50/125	violet	6 - 12 - 24	grey

Partially Assembled Splice Box LC-Duplex, sliding unit

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B61901.xx	OM2	Multimode 50/125	beige	6 - 12 - 24	grey
B61901.xxOM3	OM3	Multimode 50/125	aqua	6 - 12 - 24	grey
B61901TS.xxOM3	OM3	Multimode 50/125	aqua	6 - 12 - 24	black
B61902.xx		Multimode 50/125	metal	6 - 12 - 24	grey
B61922.xx	OS2 acc. to ITU-T G.652.D	Singlemode	metal	6 - 12 - 24	grey
B61921.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	6 - 12 - 24	grey
B61921TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	6 - 12 - 24	black

Partially Assembled Splice Box SC-Duplex, sliding unit

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B61203.xx	OM2	Multimode 50/125	beige	6 - 12 - 24	grey
B61203.xxOM3	OM3	Multimode 50/125	aqua	6 - 12 - 24	grey
B61203.xxOM4	OM4	Multimode 50/125	violet	6 - 12 - 24	grey
B61223.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	6 - 12 - 24	grey
B61223TS.xx	OS2 acc. to ITU-T G.652.D	Singlemode	blue	6 - 12 - 24	black

Partially Assembled Splice Box E2000®, sliding unit

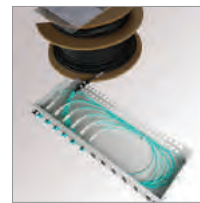
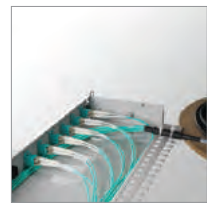
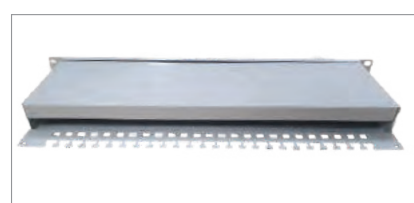
Art.-No.	Fiber class	Fiber type	Adapter Colour	With number of adapters	Colour
B61533.x	OS2 acc. to ITU-T G.652.D	Singlemode	green	6 - 12 - 24	grey

Partially Assembled Splice Box ST, non sliding unit

Art.-No.	Fiber class	Adapter colour	With number of adapters	Colour
B61003.xx	Multimode 50/125	metal	6 - 12 - 24	grey

Note: xx set number of Pigtailed. Preferred storage types see table.

YOU WILL FIND PRE-ASSEMBLED CABLES FROM P. 70



Partially Assembled Breakout box OM4

Partially Assembled Breakout box equipped with LC duplex adapter OM4
 Front panel screwed and adapters inserted
 Metal box

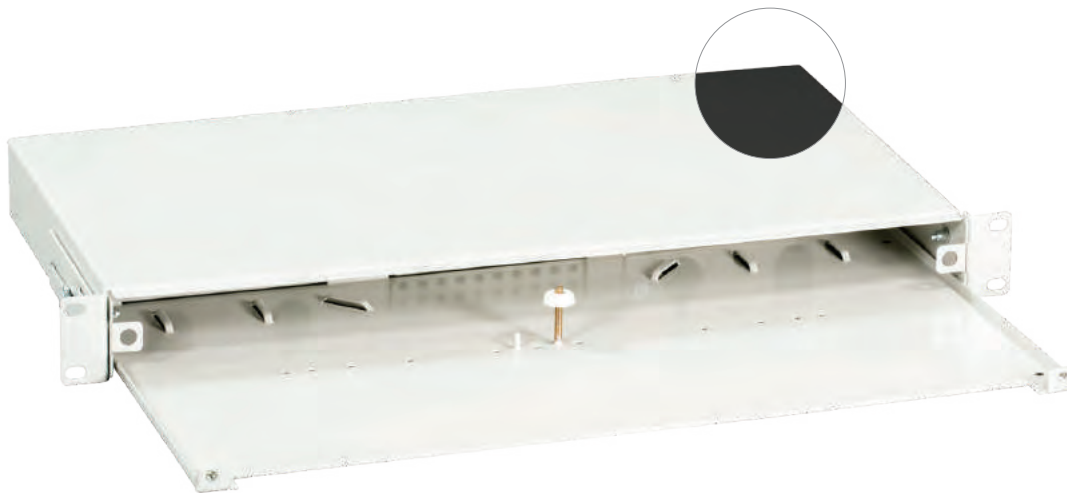
Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B65901.20M4	OM4	Multimode 50/125	erica-violet	2	grey
B65901.30M4	OM4	Multimode 50/125	erica-violet	3	grey
B65901.40M4	OM4	Multimode 50/125	erica-violet	4	grey
B65901.60M4	OM4	Multimode 50/125	erica-violet	6	grey
B65901.80M4	OM4	Multimode 50/125	erica-violet	8	grey
B65901.100M4	OM4	Multimode 50/125	erica-violet	10	grey
B65901.120M4	OM4	Multimode 50/125	erica-violet	12	grey
B65901.160M4	OM4	Multimode 50/125	erica-violet	16	grey
B65901.180M4	OM4	Multimode 50/125	erica-violet	18	grey
B65901.240M4	OM4	Multimode 50/125	erica-violet	24	grey

Partially Assembled Breakout box OM3

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B65901.20M3	OM3	Multimode 50/125	aqua	2	grey
B65901.30M3	OM3	Multimode 50/125	aqua	3	grey
B65901.40M3	OM3	Multimode 50/125	aqua	4	grey
B65901.60M3	OM3	Multimode 50/125	aqua	6	grey
B65901.80M3	OM3	Multimode 50/125	aqua	8	grey
B65901.120M3	OM3	Multimode 50/125	aqua	12	grey
B65901.240M3	OM3	Multimode 50/125	aqua	24	grey

Partially Assembled Breakout box OM2

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Colour
B65901.2	OM2	Multimode 50/125	beige	2	grey
B65901.3	OM2	Multimode 50/125	beige	3	grey
B65901.4	OM2	Multimode 50/125	beige	4	grey
B65901.6	OM2	Multimode 50/125	beige	6	grey
B65901.8	OM2	Multimode 50/125	beige	8	grey
B65901.12	OM2	Multimode 50/125	beige	12	grey
B65901.16	OM2	Multimode 50/125	beige	16	grey
B65901.24	OM2	Multimode 50/125	beige	24	grey



Insertion for microcable Splice box equipped with keystone Easy entry for pre-assembled cable Angle bracket Rear side cable entry for 24 copper Cable Equipable with 4 splice cassettes with sleeve nut 80555.1 Equipable with micro and installation cable

Splice Box sliding version 1U without front panel, unequipped

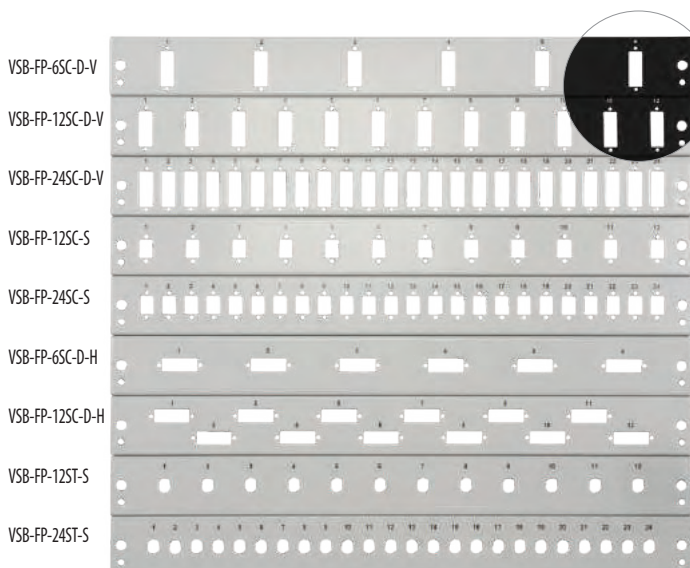
Steel sheet 1.5 mm
 With sleeve nut (Art.-No. 80555.1) max. 4 splice cassettes installable
 Cable entry at the rear, prepared for PG16/M20
 Changeable cable entry for straight and angled
 Cable entry in the middle for thinner cable

Art.-No.	Description	Colour
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey	Grey
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black	Black

Accessories

Art.-No.	Colour
VSB-A-GR-WINKEL	grey
VSB-A-SW-WINKEL	black

Front Panel for Splice- and Breakoutboxes



RAL7035 (grey)	RAL9005 (black)	Version of front panel
VSB-FP-6SC-D-H	VSB-FP-SW-6SC-D-H	6 x SC Duplex horizontal, shiftet
VSB-FP-12SC-D-H	VSB-FP-SW-12SC-D-H	12 x SC Duplex horizontal, shiftet
VSB-FP-6SC-D-V	VSB-FP-SW-6SC-D-V	6 x SC Duplex vertical
VSB-FP-12SC-D-V	VSB-FP-SW-12SC-D-V	12 x SC Duplex vertical
VSB-FP-24SC-D-V	VSB-FP-SW-24SC-D-V	24 x SC Duplex vertical
VSB-FP-12SC-S	VSB-FP-SW-12SC-S	12 x SC Simplex/E2000® Simplex/MTRJ/LC Duplex
VSB-FP-24SC-S	VSB-FP-SW-24SC-S	24 x SC Simplex/E2000® Simplex/MTRJ/LC Duplex
VSB-FP-6SC-D-H	VSB-FP-SW-6SC-D-H	6 x ST / FC (D-hole)
VSB-FP-12SC-D-H	VSB-FP-SW-12SC-D-H	12 x ST / FC (D-hole)
VSB-FP-12ST-S	VSB-FP-SW-12ST-S	12 x ST / FC (D-hole)
VSB-FP-24ST-S	VSB-FP-SW-24ST-S	24 x ST / FC (D-hole)
53018.1		6 x SC Simplex/E2000® Simplex/MTRJ/LC Duplex vertical
53034.1V2		12 x E2000® Duplex, E2000® Compact (RDM) new version
53036.1		12 x Keystone + 12 x SC Simplex
53036.2		12 x Keystone + 12 x SC Duplex
53036.3		24 x Slimline Keystone E-20095
53042.1		24 x MPO/MTP



19" 1U Splice Box, unassembled, sliding unit, RAL7035

Unassembled, depth adjustable
 steel sheet 1.5 mm
 6 x self adhesive fiber tray
 front panel screwed
 with sleeve nut (item 80555.1) max. 4 splice cassettes installable
 cable entry at the rear, prepared for PG16/M20

Art.-No.	Suitable for connector	Suitable for number of adapters
53600.0	without front panel	-
53600.1	ST	24
53600.2	ST	12
53600.3	SC duplex/ LC quad	24
53600.4	SC duplex/ LC quad	12
53600.6	SC duplex/ LC quad	6
53600.7	SC duplex/ LC quad	6
53600.8	SC duplex/ LC quad	12
53600.9	SC simplex/ E2000 simplex/ LC-duplex	12
53600.10	SC simplex/ E2000 simplex/ LC-duplex	24



19" 1U Splice Box, slideless unit, RAL7035

Unassembled, depth adjustable
 steel sheet 1.5 mm
 6 x self adhesive fiber tray
 front panel screwed
 with sleeve nut (item 80555.1) max. 4 splice cassettes installable
 cable entry at the rear, prepared for PG16/M20

Art.-No.	Suitable for connector	Suitable for number of adapters
53601.0	without front panel	-
53601.1	ST	24
53601.2	ST	12
53601.3	SC duplex/ LC quad	24
53601.4	SC duplex/ LC quad	12
53601.6	SC duplex/ LC quad	6
53601.7	SC duplex/ LC quad	6
53601.8	SC duplex/ LC quad	12
53601.9	SC simplex/ E2000 simplex/ LC-duplex	12
53601.10	SC simplex/ E2000 simplex/ LC-duplex	24



19" 1U Breakout box, not extendible, RAL7035

steel sheath 1.5 mm
 fully assembled also available!

Art.-No.	Suitable for connector	Suitable for number of adapters
53608.0	without front panel	-
53608.4	SC duplex/ LC quad	12
53608.9	SC simplex/ E2000 simplex/ LC-duplex	12



19" 1U Splice Box, unassembled, sliding unit, RAL9005

Unassembled, depth adjustable
 steel sheet 1.5 mm
 6 x self adhesive fiber tray
 front panel screwed
 with sleeve nut (item 80555.1) max. 4 splice cassettes installable
 cable entry at the rear, prepared for PG16/M20

Art.-No.	Suitable for connector	Suitable for number of adapters
53600TS.1	ST	24
53600TS.2	ST	12
53600TS.3	SC duplex/ LC quad	24
53600TS.4	SC duplex/ LC quad	12
53600TS.8	SC duplex/ LC quad	12
53600TS.9	SC simplex/ E2000 simplex/ LC-duplex	12
53600TS.10	SC simplex/ E2000 simplex/ LC-duplex	24



19" 1U Splice Box, slideless unit, RAL9005

Unassembled, depth adjustable
 steel sheet 1.5 mm
 6 x self adhesive fiber tray
 front panel screwed
 with sleeve nut (item 80555.1) max. 4 splice cassettes installable
 cable entry at the rear, prepared for PG16/M20

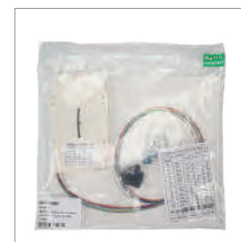
Art.-No.	Suitable for connector	Suitable for number of adapters
53601TS.0	without front panel	-
53601TS.1	ST	24
53601TS.4	SC duplex/ LC quad	12
53601TS.9	SC simplex/ E2000 simplex/ LC-duplex	12



19" 1U Splice Box with telescopic-pull out and quick-lock, RAL9005

- sliding unit with telescopic pull-out, depth adjustable up to 60 mm
- unassembled
- steel sheet 1.5 mm
- colour RAL9005, black
- dimensions (W x H x D) 483 x 44.5 x 280 mm
- 6 x adhesive fiber tray
- cable entry back sided, prepared for cable gland PG16/M20

Art.-No.	Suitable for connector	Suitable for number of adapters
53640TS.3	SC duplex/ LC quad	24
53640TS.4	SC duplex/ LC quad	12
53640TS.9	SC simplex/ E2000 simplex/ LC-duplex	12
53640TS.10	SC simplex/ E2000 simplex/ LC-duplex	24



Equipped splice cassette with coloured stripped pigtails LC

Equipped splice cassette with pigtails in the categories OM3, OM4, OM5, OS2 and OS2/APC. These are available in LC and SC mating faces. The pigtails are stripped, inserted into the splice cassette and have a length of 80cm outside the cassette in order to be able to implement the cable routing in the splice box correspondingly easily. The pigtails are colour-coded according to VDE-0888 with a solid-coloured coating and 12-coloured jacket. The measurement protocols of the individual fibers are enclosed in the packaging unit. In addition, the crimp splice holder (12 splices) is pre-assembled in the splice cassette, the shrink splice protector (2 x 6 splices) is enclosed in the packaging unit.

Art.-No.	Description
53100.204	Equipped splice cassette with coloured stripped pigtails LC OM3
53100.205	Equipped splice cassette with coloured stripped pigtails LC OM4
53100.206	Equipped splice cassette with coloured stripped pigtails LC OM5
53100.207	Equipped splice cassette with coloured stripped pigtails LC OS2
53100.212	Equipped splice cassette with coloured stripped pigtails LC/APC OS2



Equipped splice cassette with coloured stripped pigtails SC

Art.-No.	Description
53100.208	Equipped splice cassette with coloured stripped pigtails SC OM3
53100.209	Equipped splice cassette with coloured stripped pigtails SC OM4
53100.210	Equipped splice cassette with coloured stripped pigtails SC OM5
53100.211	Equipped splice cassette with coloured stripped pigtails SC OS2
53100.213	Equipped splice cassette with coloured stripped pigtails SC/APC OS2



Equipped Front Panel with SC Duplex Adapter

Front panel for 19" splice boxes equipped with SC duplex adapters in the categories OM3, OM4 and OS2.

Art.-No.	Number of ports	Equipped with adapter	Remark	Colour
SB-FP-6SC-D-V-OM3	6	SC Duplex aqua	holes horizontal	grey RAL7035
SB-FP-6SC-D-V-OM4	6	SC Duplex erica violet	holes horizontal	grey RAL7035
SB-FP-6SC-D-V-OS2	6	SC Duplex blue	holes horizontal	grey RAL7035
SB-FP-S-6SC-D-V-OM3	6	SC Duplex aqua	holes horizontal	black RAL9005
SB-FP-S-6SC-D-V-OM4	6	SC Duplex erica violet	holes horizontal	black RAL9005
SB-FP-S-6SC-D-V-OS2	6	SC Duplex blue	holes horizontal	black RAL9005
SB-FP-12SC-D-V-OM3	12	SC Duplex aqua	holes vertical	grey RAL7035
SB-FP-12SC-D-V-OM4	12	SC Duplex erica violet	holes vertical	grey RAL7035
SB-FP-12SC-D-V-OS2	12	SC Duplex blue	holes vertical	grey RAL7035
SB-FP-S-12SC-D-V-OM3	12	SC Duplex aqua	holes vertical	black RAL9005
SB-FP-S-12SC-D-V-OM4	12	SC Duplex erica violet	holes vertical	black RAL9005
SB-FP-S-12SC-D-V-OS2	12	SC Duplex blue	holes vertical	black RAL9005
SB-FP-24SC-D-V-OM3	24	SC Duplex aqua	holes vertical	grey RAL7035
SB-FP-24SC-D-V-OM4	24	SC Duplex erica violet	holes vertical	grey RAL7035
SB-FP-24SC-D-V-OS2	24	SC Duplex blue	holes vertical	grey RAL7035
SB-FP-S-24SC-D-V-OM3	24	SC Duplex aqua	holes vertical	black RAL9005
SB-FP-S-24SC-D-V-OM4	24	SC Duplex erica violet	holes vertical	black RAL9005
SB-FP-S-24SC-D-V-OS2	24	SC Duplex blue	holes vertical	black RAL9005



Equipped Front Panel with LC Duplex Adapter

Art.-No.	Number of ports	Suitable for adapter	Remark	Colour
SB-FP-6SC-S-OM3	6	LC duplex aqua	holes horizontal	grey RAL7035
SB-FP-6SC-S-OM4	6	LC duplex erica violet	holes horizontal	grey RAL7035
SB-FP-6SC-S-OS2	6	LC duplex blue	holes horizontal	grey RAL7035
SB-FP-S-6SC-S-OM3	6	LC duplex aqua	holes horizontal	black RAL9005
SB-FP-S-6SC-S-OM4	6	LC duplex erica violet	holes horizontal	black RAL9005
SB-FP-S-6SC-S-OS2	6	LC duplex blue	holes horizontal	black RAL9005
SB-FP-12SC-S-OM3	12	LC duplex aqua	holes vertical	grey RAL7035
SB-FP-12SC-S-OM4	12	LC duplex erica violet	holes vertical	grey RAL7035
SB-FP-12SC-S-OS2	12	LC duplex blue	holes vertical	grey RAL7035
SB-FP-S-12SC-S-OM3	12	LC duplex aqua	holes vertical	black RAL9005
SB-FP-S-12SC-S-OM4	12	LC duplex erica violet	holes vertical	black RAL9005
SB-FP-S-12SC-S-OS2	12	LC duplex blue	holes vertical	black RAL9005
SB-FP-24SC-S-OM3	24	LC duplex aqua	holes vertical	grey RAL7035
SB-FP-24SC-S-OM4	24	LC duplex erica violet	holes vertical	grey RAL7035
SB-FP-24SC-S-OS2	24	LC duplex blue	holes vertical	grey RAL7035
SB-FP-S-24SC-S-OM3	24	LC duplex aqua	holes vertical	black RAL9005
SB-FP-S-24SC-S-OM4	24	LC duplex erica violet	holes vertical	black RAL9005
SB-FP-S-24SC-S-OS2	24	LC duplex blue	holes vertical	black RAL9005



Wall Distributor Splice Housing, pre-assembled

Included:

Completely assembled wall distributor with adapters and coloured pigtails

1 or 2 x splice cassette inclusive cover

1 or 2 splice holder for each 12 crimp splices

Housing with two swivel doors, lockable

2 different locks each with 2 keys

On top and bottom each 2 cable entries for PG16 plus

2 cable entries with sealing strip

Dimensions: 445 x 445 x 95 mm

Wall Distributor Splice Housing, pre-assembled, LC, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79920.xx	OS2	Singlemode	green	12 - 24 - 48	24 - 48 - 96 x LC	grey
B79921.xx	OS2	Singlemode	blue	12 - 24 - 48	24 - 48 - 96 x LC	grey

Wall Distributor Splice Housing, pre-assembled, E2000®, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79523.xx	OS2	Singlemode	blue	12 - 24 - 48	12 - 24 - 48 x E2000®	grey

Wall Distributor Splice Housing, pre-assembled, SC, Plastic adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79203.xxOM4	OM4	Multimode 50/125	erica-violet	12 - 24 - 48	24 - 48 - 96 x SC	grey
B79203.xxOM4	OM4	Multimode 50/125	erica-violet	12 - 24 - 48	24 - 48 - 96 x SC	grey

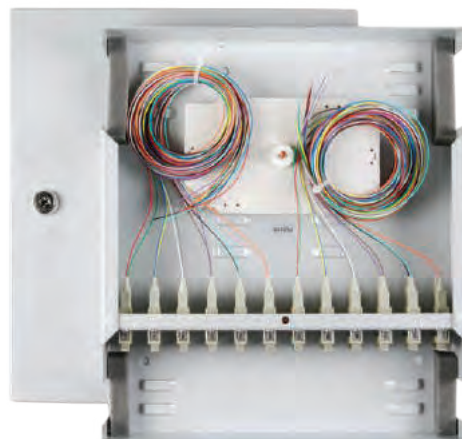
Wall Distributor Splice Housing, pre-assembled, ST, Metall adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79023.xx	OS2	Singlemode	metal	12 - 24 - 48	12 - 24 - 48 x ST	grey
B79006.xxOM4	OM4	Multimode 50/125	metal	12 - 24 - 48	12 - 24 - 48 x ST	grey
B79006.xxOM4	OM4	Multimode 50/125	metal	12 - 24 - 48	12 - 24 - 48 x ST	grey

Wall Distributor Splice Housing, pre-assembled, LC, Metall adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	Pigtail	Colour
B79922.xx	OS2	Singlemode	metal	12 - 24 - 48	24 - 48 - 96 x LC	grey
B79902.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48	24 - 48 - 96 x LC	grey
B79902.xxOM3	OM3	Multimode 50/125	metal	12 - 24 - 48	24 - 48 - 96 x LC	grey

Note: xx set number of Pigtails. Preferred storage types see table.



Mini Wall Distributor, pre-assembled

Included:

Completely assembled wall distributor with adapters and coloured pigtails

1 or 2 x Splice cassette inclusive cover

1 or 2 x Spliceholder for 12 crimp splices

Housing with cover, lockable, 2 keys

4 entries with sealing strip for incoming and outgoing cable

Dimensions: 280 x 320 x 54 mm

Mini Wall Distributor, pre-assembled, LC, Metall adapter

Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	With number of adapters	Colour
B78902.xxOM4	OM4	Multimode 50/125	metal	6 - 12 - 24	12 - 24 - 48 x LC	grey
B78902.xxOM3	OM3	Multimode 50/125	metal	6 - 12 - 24	12 - 24 - 48 x LC	grey

Mini Wall Distributor, pre-assembled, SC, Plastic adapter






Art.-No.	Fiber class	Fiber type	Adapter colour	With number of adapters	With number of adapters	Colour
B78203.xxOM4	OM4	Multimode 50/125	erica-violet	6 - 12 - 24	12 - 24 - 48 x SC	grey
B78203.xxOM3	OM3	Multimode 50/125	aqua	6 - 12 - 24	12 - 24 - 48 x SC	grey

Note: xx set number of Pigtails. Preferred storage types see table.

WALL DISTRIBUTOR AND MINI WALL DISTRIBUTOR COMPLETELY ASSEMBLED



Colour code DIN VDE0888

											
RD	GN	BL	YE	WT	GR	BN	VT	TQ	BK	OR	PK
1: RD	2: GN	3: BL	4: YE	5: WT	6: GR	7: BN	8: VT	9: TQ	10: BK	11: OR	12: PK

Prepared assembly:

The wall distributors are fully equipped with feed-through adapters. The colour-coded pigtails are inserted into the feed-through adapters according to colour code DIN VDE0888 and the pigtails are neatly placed in the wall distribution box including the packaging with measured values.

The colour assignment of the pigtails during the splicing process is made easy by the solid-coloured primary coating (250µ).





Wall Distributor Splice Housing RAL7035

Housing with two swivel doors, lockable
 2 different locks each with 2 keys
 with each 2 cable entries on top and bottom for PG16
 2 further cable entries with sealing strip
 Additional strain relief clamps and guiding clips for pigtails or cables for fixing with cable ties
 Max. 5 splice cassettes and one mountable distribution plate
 Fixing of distribution plate with two M3-screws and two quick locks
 Steel sheet 1.5 mm
 Weight 5.2 kg

Dimensions: 445 x 445 x 95 mm

Accessory

Art.-No.	Description
53031.2	Distribution Plate, RAL 7035 48 SC/SC, for 53604.1V1
53604.4	Distribution Plate, RAL7035 24 SC/SC and splice box 2U
53604.3	Distribution Plate 48 SC-Simplex for 53604.1V1 and splice box 2U
53604.2	Distribution Plate, RAL7035 48 ST/ST and splice box 2U
53604.3V	Distribution Plate 48 SC-Simplex vertical for 53604.1V1 and splice box 2U
53031.2TS	Distribution Plate, RAL 9005 48 SC/SC, for 53604.1V1
53604.3V08	Distribution Plate 48 SC-Simplex for 53604.1V1 and splice box 2U

Art.-No.	Description	Colour
53604.1V1	Wall distribution, splice hou. W=445 x H=445 x D=95mm	grey



Compact Splice Distributor Set

Housing with swivel lid lockable, 2 keys
 2 openings with dust-tight strips for incoming and outgoing cable for fixing with cable ties
 For max. 4 splice cassettes or 1 splice cassette plus one distribution plate
 Steel sheet

Scope of delivery:

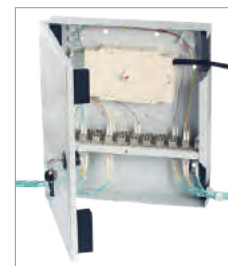
Housing with 2 keys
 1 x distribution plate for 12 x ST
 1 x distribution plate for 6 x SC-Duplex

Dimensions: 265 x 150 x 55 mm

Accessory

Art.-No.	Description
53603.2	Distribution Plate, RAL7035 12 ST or FC (D-hole) Adapters
53603.3	Distribution Plate, RAL7035 6 SC dpx or 6 LC quad Adapters
53603.4	Distribution Plate, RAL7035 6 SC spx or 6 LC quad Adapters
53603.5	Spare lock for 53603.1, with 2 keys

Art.-No.	Description	Colour
53603.1	Compact splice dist. set RAL7035, W=265 x H=150 x D=55mm	grey
53603.1WS	Compact splice dist. set RAL9003, W=265 x H=150 x D=55mm	white



Mini Wall Distributor, RAL7035

Housing with cover, lockable, 2 keys
 4 openings with sealing strips for incoming and outgoing cable
 Strain relief via cable ties possible
 Mountable are max. 8 splice cassettes or 4 splice cassettes and one distribution plate
 Steel sheet 1.5 mm
 Weight: 2 kg
 Delivery unassembled

Scope of delivery:
 Housing with 2 keys
 2 plastic rivets

Dimensions: 280 x 320 x 54 mm

Accessory

Art.-No.	Description
53605.2	Distribution Plate, RAL7035 24 ST/ST, for 53605.1
53605.3	Distribution Plate, RAL7035 24 SC/SC, for 53605.1
53605.4	Distribution Plate, RAL7035 12 SC/SC, for 53605.1
53605.5	Distribution Plate, RAL7035 12 ST/ST, for 53605.1
53100.22	Spliceholder for 12 arc splices
53100.202	Splice Set Crimp
53100.203	Splice Set Heat shrink

Art.-No.	Description	Colour
53605.1	Mini Wall Distributor RAL7035	grey



Industrial Splice Distributor with Metal Housing, unassembled

Fully assembled metal housing
 For DIN Rail mounting
 Cable entries top/bottom, prepared for M20
 Delivery incl. screws for front panel

Included:

- 1 x splice distributor housing
- 1x splice cassette
- 1 x splice holder for 12 crimp splices (Attach of an optional additional splice holder only with double-sided adhesive tape)
- 1 x cable gland M20
- 1 x Alu DIN Rail clip

Delivery unassembled and without front panel

Dimensions: 61 x 115 x 113 mm

Accessory

Art.-No.	Description
53705.2V2B	Front plate for 6 x SC-D, LC-Quad with 2.8 mm mounting holes
53705.3V2B	Front plate for 6 x SC-S, LC-D, E2000® with 2.8 mm mounting holes
53705.4V2B	Front plate for 12 x SC-S, LC-D, E2000® with 2.8 mm mounting holes
53705.5V2B	Front plate for 12 x ST-Simplex
53705.2V2B2	Front plate for 6 x SC-D, LC-Quad with Ø1,7 mm screw hole
53705.3V2B2	Front plate for 6 x SC-S, LC-D, E2000® with Ø1,7 mm screw holes
53705.4V2B2	Front plate for 12 x SC-S, LC-D, E2000® with Ø1,7 mm screw holes

Art.-No.	Description	Colour
53705.1V3	Industrial Splice housing for DIN Rail without front panel RAL7035	grey



Micro Splice Distributor with Telecom - Splice Cassette

For spliced connection of fiber optic cables
 Suitable for wall mounting
 Duct installation or installation on DIN Rail possible with cable duct fixing set (53702.1)
 Cable entries on top/bottom or at the rear
 Delivery unassembled

Scope of delivery:
 1 x splice cassette
 1 x splice holder crimp for 12 splices
 2 x grommets
 2 x cable ties

Dimensions: 160 x 110 x 30mm

Art.-No.	Description	Colour
53700.1V2	Micro Splicebox with telecom splice cassette for 12 splices	grey

Accessory

Art.-No.	Description
53702.1	Cable duct fixing set C-rail or DIN Rail mountable
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)
FTTH-PIGTAIL-LC1	Fiber pigtail LC 9/125µ G657A2, yellow, 2m
00482.2	Fiber pigtail LC-APC 9/125µ 12er Set, coul., 2m OS2
03307.2	Fiber pigtail 12 set ST 50/125µ, OM4, 2m



Micro Splice Distributor for 4 Adapter with SC simplex hole

Plastic splice box including accessories:
 1 x adapter plate for 4 x SC simplex adapters
 1 x splice holder for 5 splices, 2 x cable clips
 4 x cable grommets, 4 x cable ties
 Wall- mounting or cable duct installation possible
 2 cable entries (top/bottom) or 1 x through rear wall possible
 For connection of optical fiber cable via splice or for max. 4 fibers via connector
 Dimensions: 160 x 110 x 30 mm

Art.-No.	Description	Colour
53701.1V2	Micro Splicebox for 4 adapters SC-Simplex and 5 crimp splices	grey

Accessory

Art.-No.	Description
53702.1	Cable duct fixing set C-rail or DIN Rail mountable
53703.1	Splice holder for 5 splices for Micro-splice box
53343.32	Adapter LC/APC Duplex SM one piece, Shutter, green, ceramic sleeve, SC Simplex
53302.33	Adapter SC Simplex OM1/2 one piece, beige, ceramic sleeve
53334.1	Adapter LC Duplex OM4 one piece, erica violet, ceramic sleeve, SC Simplex
53350.31	Adapter LC Duplex SM one piece, blue, ceramic sleeve, SC Simplex
53302.31	Adapter SC Simplex SM one piece, blue, ceramic sleeve
53357.31	Adapter LC Duplex OM3 one piece, aqua, ceramic sleeve, SC Simplex
53334.10M5	Adapter LC Duplex OM5 one piece, lime green, ceramic sleeve, SC Simplex
FTTH-PIGTAIL-SCA12	Fiber pigtail SC/APC 9/125µ G657A2, 12-coloured set, 2m
01015.2	Fiber pigtail SC-APC8° 9/125µ 12x Set coul., 2m, OS2



FO Mini Splice Distributor

With splice holder for 12 x crimp splice protections. Wall-, duct- or DIN Rail- installation (Clip + screw, please order separately). Housing and cover made of plastic. 2 openings for incoming and outgoing cable. Strain relief via 4 included cable ties possible. Weight ca. 30 g. delivery unassembled

Accessory

Art.-No.	Description
83030.2	DIN Rail holder, blank steel FM 4/TS35
81834.2	Screw M4 x 8mm for 83030.2 4.8 tinned DIN 7985

Art.-No.	Description
53704.1	FO mini splice distributor plastic

Micro Splice Distributor Housing, unassembled

Wall-, cable duct- or DIN Rail mounting possible (clip + screw please order separately)

Plastic housing with holder for adapters:

2 x SC-Simplex, 2 x LC-Duplex, 2 x E2000®, 2 x FC, 2 x ST, 1 x SC-Duplex or 1 x LC-Quad

1 x cable entry with 5 holes 5 mm

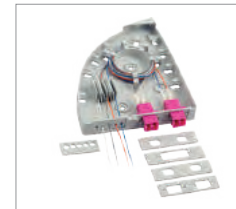
1 x cable entry with 5 holes 3 mm

Holder for 4 x shrink splice protection

Pre-stamped outlines for fiber depot

Scope of delivery: 5 x holders for several adapters, 2 x cable entries, 2 x S6 dowel and screws, 6 x cable ties

Dimensions: 110 x 140 x 20 mm



Art.-No.	Description
53712.1	Small Splice distributor housing, IP20, RAL7035

MORE INDOOR & OUTDOOR BOXES CAN BE FOUND FROM PAGE 23



FTTx compact junction box

FTTx compact junction box with dimensions 100 x 80 x 23 mm

An adjustable fiber overlength cassette is mounted in the box for an easier work on cable inlets or connecting an adapter. The splice protection holder is also in the fiber overlength cassette. There are breakouts for 2 cable inlets in the box and also 2 breakouts for flangeless SC-Simplex or LC-Duplex adapters.

Art.-No.	Description
53700.2	FTTx compact junction box, connection: 2x SC-Simplex/LC-Duplex

Splice Distributor Housing Set IP66, RAL70335

IP66 Plastic housing RAL7035
Suitable for wall mounting

Included:

Distributor board for fixing of 3 splice cassettes or

2 splice cassettes (53100.200) and 1 mounting bracket

1 mounting bracket for 6 x SC duplex / LC quad adapters

1 mounting bracket for 12 x ST simplex / FC simplex adapters (D-hole)

Prepared cable entries for 2 x M16/M25 and 4 x M20/M32

Delivery unassembled

Dimensions: 255 x 180 x 100 mm



Art.-No.	Description
53710.1	Splice box housing IP66, grey

Micro Splice Distributor I Housing IP54

IP54 Plastic housing RAL7035
For 6 shrink splices
Lockable cover

Included:

- Metal installation board
- Holder for 6 shrink splices
- Chart label
- 1 x key
- 1 x PG13.5 gland
- 1 x PG9 gland
- 2 x dowel M8
- 2 x screws 2.9 x 9.5 mm



Dimensions: 103 x 185 x 100 mm

Art.-No.	Description
53713.1	Micro Splice distributor I, RAL7035, IP54, lockable

Micro Splice Distributor II Housing IP54

IP54 Plastic housing RAL7035
For 4 x SC simplex / LC duplex adapters
Lockable cover

Included:

- Metal bracket for adapters
 - Splice cassette
 - Chart label
 - Holder for 6 shrink splices
 - 1 x key
 - 2 x PG16 gland
 - 1 x PG9 gland
 - 2 x dowel M8
 - 2 x screws 2.9 x 9.5 mm
- Delivery unassembled**



Dimensions: 103 x 185 x 93 mm

Art.-No.	Description
53714.1	Micro Splice distributor II IP54, RAL7035

Splice Distributor Housing IP54

IP54 Plastic housing RAL7035
Suitable for wall mounting
Lockable cover (screw) with 3.5 mm hole for sealing

Included:

- Basic module plate for fixing one splice cassette and one mounting bracket
- Splice cassette with cover
- Mounting bracket with 24 LC duplex / SC simplex / E2000® simplex mounting holes
- Mounting bracket with 6 x SC duplex / LC quad mounting holes
- Mounting bracket for 12 x ST simplex / FC simplex holes
- 3 x PG13.5 cable glands
- 4 x fixing screws for wall-mounting

Dimensions: 190 x 375 x 115 mm



Art.-No.	Description
53720.1	IP54 Splice housing set with wide range of accessories



Multi System Fiber Optic - Outlet

The fiber optic junction box offers multifunctional properties and is suitable for all common types of fiber optic connectors. The zinc die-cast junction box is supplied with plastic adapter plates that can be fitted with the various fiber optic adapters. Fiber optic adapters with a 35° inclination can be inserted into the adapter plates supplied in the following assembly variants.

2xST, 1xSC Duplex, 2xSC Duplex, 2xMTRJ, 3xMTRJ, 2xMTRJ (AMP) or 2x LC Duplex.

The fiber optic junction box has a standard-compliant 50 x 50 mm plastic central plate with printed laser symbol and is suitable for installation in ducts and underfloor systems, as well as for flush and surface mounting.

Clip and screw locking of the adapter plates

Delivery Incl. 9 **unassembled** adapter plates

For SC-simplex, SC-duplex, E2000®-simplex, MTRJ, AMP/MTRJ, ST, FC, DIN, LC-duplex and a blanking plate

Accessory

Art.-No.	Description
ET-25074V2	Surface mount frame, RAL 1013
ET-25084V3	Surface frame RAL9010
ET-25081	Cover plate RAL9010
53343.31	Adapter LC/APC Duplex SM one piece, green, ceramic sleeve, SC Simplex
53353.31	Adapter LC/APC Quad SM one piece, green, ceramic sleeve, SC Duplex
53316.35	Adapter SC/APC Duplex SM one piece, green, ceramic sleeve
53316.3	Adapter SC Duplex SM one piece, blue, ceramic sleeve

Art.-No.	Description	Colour
ET-25170	FO Outlet Multi System RAL 9010	white

Fiber Optic Frame Set

For holding 2 adapters

2 Ports for E2000®simplex, SC simplex or LC duplex

40° slanted outlet

Outer ring 80 x 80 mm and central plate 50x50mm with labeling field

12 x 40 mm according to **DIN49075**

Compatible to common switch programs with adapter plate

Delivery unassembled

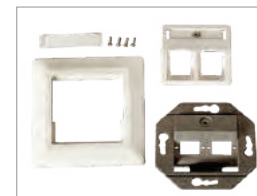
Included:

1 x metal frame

1 x plastic cover

1 x plastic central plate

4 x M2-screws



Art.-No.	Description	Colour
ET-25085FO	FO Frame Set 2x E2000®, SC-Simplex, LC-Duplex, RAL9010	white

FO outlet UP, 2 LC-D adapter OS2

Fiber optical flush-mounted data outlet to accommodate 2 SC-Simplex adapter or 2 LC-Duplex adapter. The data outlet is equipped with adapters in the classes OM3, OM4 or OS2 including shutter. **The highlight of this flush-mounted data outlet is, that it not only has an integrated receptacle for excess fiber lengths, but also has a receptacle for splice protection (4x crimp or 4x shrink).** Depending on the application, the holder can also be dismantled so that it does not get in the way when pre-assembled cables are installed.



Performance features:

Horizontal and vertical installation in the cable duct or flush mounting

Recording of fiber overlengths

Integrated splice protection for 4 splices

Cover 80 mm x 80 mm

Data outlet depth of 40 mm for installation in flush-mounted boxes or cavity wall boxes



Art.-No.	Description	Colour
FTTH-OUTLET-LC-OS2	FO data outlet UP, 2 LC-D adapter OS2 with shutter, integrated splice holder	white
FTTH-OUTLET-LC-SMAPC	FO data outlet UP, 2 LC-D adapter OS2 APC with shutter, integrated splice holder	white
FTTH-OUTLET-LC-OM4	FO data outlet UP, 2 LC-D adapter OM4 with shutter, integrated splice holder	white
FTTH-OUTLET-LC-OM3	FO data outlet UP, 2 LC-D adapter OM3 with shutter, integrated splice holder	white
FTTH-OUTLET-SC-OS2	FO data outlet UP, 2 SC-S adapter OS2 with shutter, integrated splice holder	white
FTTH-OUTLET-SC-SMAPC	FO data outlet UP, 2 SC-S adapter OS2 APC with shutter, integrated splice holder	white
FTTH-OUTLET-SC-OM4	FO data outlet UP, 2 SC-S adapter OM4 with shutter, integrated splice holder	white
FTTH-OUTLET-SC-OM3	FO data outlet UP, 2 SC-S adapter OM3 with shutter, integrated splice holder	white



Splice Cassette

- For 2 x 12 crimp splice holders (max. 24 arc splices)
- For 2 x 6 shrink splice holders (max. 12 arc splices)
- Stackable
- Dimensions (W) x (H) x (D) 155 x 8 x 92 mm

Art.-No.	Description
53100.200	Splice cassette w/o logo white
53100.201	Splice cassette cover, white

Accessory

Art.-No.	Description
53100.6	Strain relief (fitted in the splice cassette 53100.200)
53100.7	Splice holder for 6 x arc splices with shrink tube, white
53100.8	Splice holder for 6 x arc splices with shrink tube, black
53100.21	Spliceholder for 12 arc splices



Strain relief for FO single fiber

Strain-relief (for mounting on splice cassette 53100.200)

Art.-No.	Description
53100.6	Strain relief (fit in splice cassette 53100.200)

Accessory

Art.-No.	Description
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black
53100.202	Splice Set Crimp
53100.203	Splice Set Heat shrink



Splice Holder for Thermo Splice Protection

Splice Holder for 6 x Arc Splices with Shrink Tube

Art.-No.	Description
53100.8	Splice holder for 6 x arc splices with shrink tube, black



Splice Holder for Crimp Arc Splices

Splice Holder for 12 x Arc Splices Crimp

Art.-No.	Description
53100.21	Spliceholder for 12 arc splices
53100.22	Spliceholder for 12 arc splices



Splice Set Heat Shrink

Complete Set for assembling splice boxes, distributor or wall cabinets

The Set contains:

- 1x splice cassette for 2 splice holder
- 1x cover with symbol „attention laser“
- 1x splice holder
- 6x splice protection (heat shrink tube)
- 2x cable tie
- 1x spiral coiled tube

Art.-No.	Description
53100.203	Splice Set Heat shrink



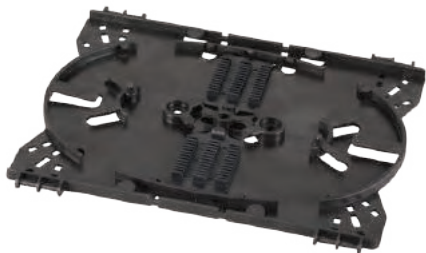
Splice Set Crimp

Complete Set for assembling splice boxes, distributor or wall cabinets

The Set contains:

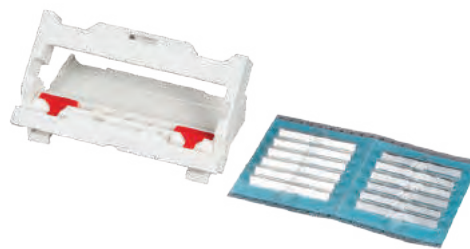
- 1x splice cassette for 2 splice holder
- 1x cover with symbol „attention laser“
- 1x splice holder
- 12x splice protection (crimp splice protection)
- 2x cable tie
- 1x spiral coiled tube

Art.-No.	Description
53100.202	Splice Set Crimp



Splice Cassette PRO

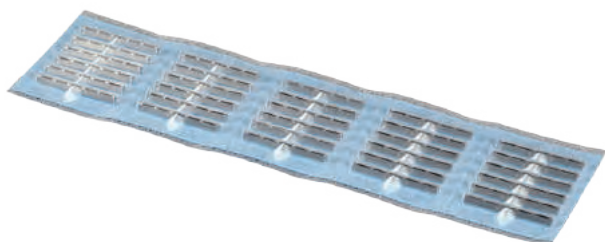
Art.-No.	Description
53100.10	Splice cassette Pro incl. holders for 2x12 crimp splices
53100.110	Cover for splice cassette 53100.10



Crimptool for crimp splice protection incl. 12 pcs. of crimp splice protection

Plastic Crimptool for multiple use
12 pieces of crimp splice protection in the set

Art.-No.	Description
53100.5	crimptool for crimp splice protection incl. 12 pcs. of crimp splice protection



Crimp arc splice protection, Telekom approved

Crimp splice protector for arc splices
Telekom approved

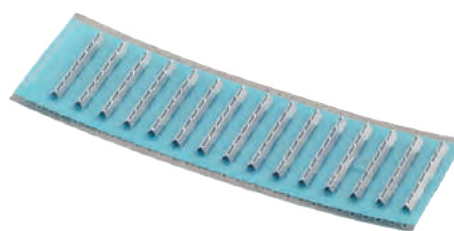
Ordering info

53100.32: Price per splice protector - smallest order unit: 30
53100.32-150: Price per 150 splice protectors - smallest order unit: 1

Art.-No.	Description
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)

Accessory

Art.-No.	Description
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black



Crimp Splice protection(ANT)

Crimp splice protector for arc splices

Ordering info

53100.3: Price per splice protector - smallest order unit: 15

Art.-No.	Description
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)

Accessory

Art.-No.	Description
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black

Shrink-Splice-Protection for Arc splices

Shrink splice protection to protect the splice from damage and environmental influences

Storage in lockable box

Metal bolt for bend protection integrated

Min. shrink temperature : 120°C
PPU: 100

Art.-No.	Description
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100



Accessory

Art.-No.	Description
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey
53100.200	Splice cassette w/o logo white



Cable Glands

Seperable cable gland + nut M20, 17 mm inner diameter

Art.-No.	Description
53010.5	PG16 Cable Glands conical grey, RAL7035
53012.1	M20 Cable Glands grey, RAL7035



Dust Covers for Front- and Distribution-plates

Dust cover for unused Ports

Art.-No.	Description
53025.1-100	Dust cover plastic black, for ST /FC (D-hole), PU 100
53026.1-100	Dust cover plastic black for E2000®/SC simplex/LC-Duplex, PU 100
53028.1-100	Dust cover plastic black SC duplex/LC quad/ST duplex, PU 100



Pan head sleeve nut

Pan head sleeve nut with slot, M4x14
If using 4 splice cassettes in a 1 U splicebox SB-A-GR, SB-A-SW, VSB-A-GR, VSB-A-SW

Art.-No.	Description
80555.1	Pan head sleeve nut, M4x14, (splicebox)

Accessory

Art.-No.	Description
53100.200	Splice cassette w/o Logo white
53100.202	Splice Set Crimp
53100.203	Splice Set Heat shrink
VSB-A-SW	Splice box sliding version 1U without front panel, unequipped, black
VSB-A-GR	Splice box sliding version 1U without front panel, unequipped, grey



Self-tapping screw

Self-tapping screw

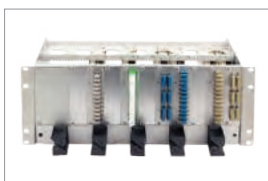
Art.-No.	Description
80550.1-50	Tapping screw ST2,5 50 pieces DIN7971
80550.1-100	Tapping screw ST2,5 100 pieces DIN7971



Quick release nylon white

For mounting in distribution panel 53605.x with mini wall distributor 53605.1.

Art.-No.	Description
53697.1	Quick release nylon, white, for distribution plates in 53605.1



19" Subrack

19"/3U subrack with 84DU

Additional integrated 1U cable overlength box

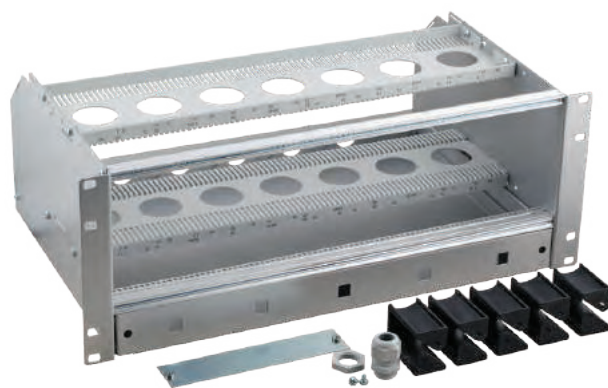
Total height: 4U

4U aluminium side walls for installation in 19" rack
84DU depth adjustable subrack with 1DU splitting (1DU=5,08mm)
Cable overlength box to the back/front sliding unit
Front mounted cable routing panel with 5 cable brackets

Delivery unequipped

Scope of delivery: 1 x subrack mounted
1 x PG16 cable gland incl. locknut
5 x cable brackets

Dimensions: 483 x 178 x 295 mm



Accessory

Art.-No.	Description
53711.10	Blind plate 3HE/7TE Alu anodised with set of screws
53711.11	Cable bracket-Set (5pc.) 1U, radius R30, H=56mm
53711.21	Blind plate 3HE/14TE Alu anodised with set of screws
53711.30	Labeling bar Alu, self-adhesive L=100mm
53711.31	Paper strips for labeling bar Alu, L=100mm
53711.32	Film strips for labeling bar Alu, L=100mm

Art.-No.	Description	max. Modules	Colour
53711.1	Subrack 4U 84TE/3U Incl. 1U Cable Overlength Box	12	alu/metal



Fully equipped plug-in module with adapters and pigtails
 For installation in 19" subracks 53711.1 and 53733.1
 3U/7DU
 1x splice cassette including cover
 12 pigtails with 1x splice holder (12 x crimp)
 24 pigtails with 2x splice holder (12 x crimp)
 Overlength cassette
 Labelling strip

Plug-In Module 3U/7DU, LC-Duplex adapters

Art.-No.	Description	Number of adapter	Adapter	APC	Fiber type
B88924.12	Plug-In Module 3U/7DU, 9/125µ OS2, 6x LC Duplex APC green	6	LC duplex	Yes	OS2
B88921.12	Plug-In Module 3U/7DU, 9/125µ OS2, 6x LC Duplex blue	6	LC duplex	No	OS2
B88922.12	Plug-In Module 3U/7DU, 9/125µ OS2, 6x LC Duplex metal	6	LC duplex	No	OS2
B88901.120M4	Plug-In Module 3U/7DU, 50/125µ OM4, 6x LC Duplex erica-violet	6	LC duplex	No	OM4
B88901.120M3	Plug-In Module 3U/7DU, 50/125µ OM3, 6x LC Duplex aqua	6	LC duplex	No	OM3
B88902.120M3	Plug-In Module 3U/7DU, 50/125µ OM3, 6x LC Duplex metal	6	LC duplex	No	OM3
B88902.12	Plug-In Module 3U/7DU, 50/125µ OM2, 6x LC Duplex metall	6	LC duplex	No	OM2

Plug-In Module 3U/7DU LC-Quad adapters

Art.-No.	Description	Number of adapter	Adapter	APC	Fiber type
B88206.24	Plug-In Module 3U/7DU, 9/125µ OS2, 6x LC/APC Quad green	6	LC quad	Yes	OS2
B88925.12	Plug-In Module 3U/7DU, 9/125µ OS2, 3x LC Quad blue	3	LC quad	No	OS2
B88925.24	Plug-In Module 3U/7DU, 9/125µ OS2, 6x LC Quad blue	6	LC quad	No	OS2
B88905.120M3	Plug-In Module 3U/7DU, 50/125µ OM3, 3x LC Quad aqua	3	LC quad	No	OM3
B88905.240M3	Plug-In Module 3U/7DU, 50/125µ OM3, 6x LC Quad aqua	6	LC quad	No	OM3

Plug-In Module 3U/7DU SC-Duplex adapters

Art.-No.	Description	Number of adapter	Adapter	APC	Fiber type
B88223.12	Plug-In Module 3U/7DU, 9/125µ OS2, 6x SC Duplex blue	6	SC duplex	No	OS2
B88226.12	Plug-In Module 3U/7DU, 9/125µ OS2, 6x SC/APC Duplex metal	6	SC duplex	Yes	OS2
B88228.12	Plug-In Module 3U/7DU, 9/125µ OS2, 6x SC/APC Duplex green	6	SC duplex	Yes	OS2
B88203.120M4	Plug-In Module 3U/7DU, 50/125µ OM4, 6x SC Duplex erica-violet	6	SC duplex	No	OM4
B88203.120M3	Plug-In Module 3U/7DU, 50/125µ OM3, 6x SC Duplex aqua	6	SC duplex	No	OM3
B88203.12	Plug-In Module 3U/7DU, 50/125µ OM2, 6x SC Duplex beige	6	SC duplex	No	OM2

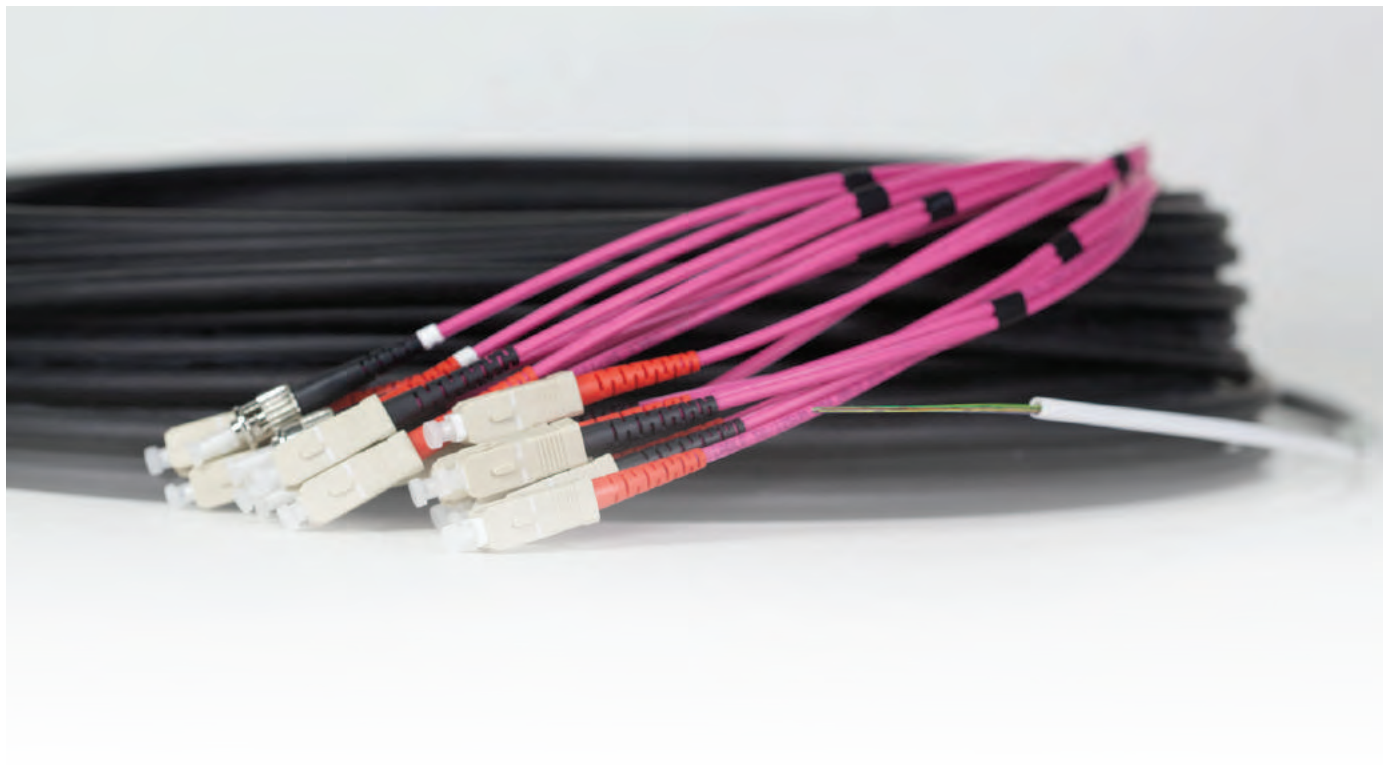
Plug-In Module 3U/7DU SC-Simplex adapters

Art.-No.	Description	Number of adapter	Adapter	APC	Fiber type
B88224.12	Plug-In Module 3U/7DU, 9/125µ OS2, 6x SC Simplex blue	12	SC simplex	No	OS2
B88403.120M4	Plug-In Module 3U/7DU, 50/125µ OM4, 12x SC Simplex beige	12	SC simplex	No	OM4
B88403.120M3	Plug-In Module 3U/7DU, 50/125µ OM3, 12x SC Simplex beige	12	SC simplex	No	OM3

Plug-In Module 3U/7DU E2000® adapters

Art.-No.	Description	Number of adapter	Adapter	APC	Fiber type
B88523.12	Plug-In Module 3U/7DU, 9/125µ OS2, 12x E2000® blue	12	E2000®	No	OS2
B88533.12	Plug-In Module 3U/7DU, 9/125µ OS2, 12x E2000®/APC green	12	E2000®	Yes	OS2
B88503.120M4	Plug-In Module 3U/7DU, 50/125µ OM4, 12x E2000® beige	12	E2000®	No	OM4
B88503.120M3	Plug-In Module 3U/7DU, 50/125µ OM3, 12x E2000® beige	12	E2000®	No	OM3
B88503.12	Plug-In Module 3U/7DU, 50/125µ OM2, 12x E2000® beige	12	E2000®	No	OM2

FIBER OPTIC INSTALLATION CABLE //



Universal cable B2ca	P. 63
Universal cable	P. 64
Outdoor cable	P. 66 - 67
Indoor cable	P. 68
FTTH cable	P. 69

// YOU MAY ALSO BE INTERESTED IN:

Splice Boxes	P. 42 - 47
Splicing- & Measurement Equipment	P. 104
Closures	P. 34
Accessory (Splice Cassette, Splice Protection)	P. 59
Adapters	P. 92 - 94
Cleaning Tools	P. 96



Application:

For fixed installation indoor and outdoor
 In cable ducts, tubes and interconnections
 Mechanical installation by winch is permitted only when using force meters with recording function
 Not suitable for underground laying (direct buried)

Characteristics:

Universale cable
 Suitable for connector assembly

The cable diameter can vary

Temperature Range (Operation): see table
 Temperature Range (Storage): -40 – 80 °C
 Temperature Range (Installation): -5 – 60 °C

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 PRE-ASSEMBLED
 VARIANTS FROM
 P. 70

INFRALAN® U-DQ(ZN)BH 9/125µ, G657A1 B2ca



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54408.3LOS2-CPR	08E (1 x 8) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54412.3LOS2-CPR	12E (1 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54424.3LOS2-CPR	24E (2 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54448.3LOS2-CPR	48E (4 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca

INFRALAN® U-DQ(ZN)BH 50/125µ, OM4 B2ca



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54408.3LOM4-CPR	8G (1 x 8) Multimode OM4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54412.3LOM4-CPR	12G (1 x 12) Multimode OM4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54424.3LOM4-CPR	24G (2 x 12) Multimode OM4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54448.3LOM4-CPR	48G (4 x 12) Multimode OM4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca

INFRALAN® U-DQ(ZN)BH 50/125µ, OM3 B2ca



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54408.3LOM3-CPR	8G (1 x 8) Multimode OM3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54412.3LOM3-CPR	12G (1 x 12) Multimode OM3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54424.3LOM3-CPR	24G (2 x 12) Multimode OM3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca
54448.3LOM3-CPR	48G (4 x 12) Multimode OM3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	B2ca

Building classes according to the MBO			Fire classes	
Class	Description		Minimum requirement	
			Building (except escape route)	Escape Routes
S1	high-rise buildings	exceeding 22 m	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S2	construction works	exceeding 30 m	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S3	buildings	with the largest floorspace of 1600 m ² , except for residential buildings and garages	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S4	sales outlets	exceeding 800m ²	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S5	office/ administration	rooms exceeding 400 m ²	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S6	buildings with single rooms	single rooms can be used with more than 100 persons	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S7	places of assembly	more than 200 persons	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S8	restaurants/ hotels	for more than 40 guests in buildings, more than 12 beds, casinos more than 150 m ²	C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S9	9 buildings with functional units provided for care or assistance dependent people	more than 6 persons, need for intensive care	B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1
S10	hospitals		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1
S11	other facilities for accommodating people like residences		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S12	day-care facilities for children, disabled people and elderly		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1
S13	schools, universities or similar facilities		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S14	penal institution and construction works for psychiatric hospital treatments		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S16	leisure/ amusement parks		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
S18	warehouse shelves with top of the load higher exceeding 7.5 m		E _{ca}	B2 _{ca} s1 d1 a1
S19	construction works for storage of substances with increased fire hazard		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1
	Industry		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1
	server rooms		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1
	road tunnels		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1
	rail tunnels		B2 _{ca} s1 d1 a1	B2 _{ca} s1 d1 a1
	underground parking		C _{ca} s1 d2 a1	B2 _{ca} s1 d1 a1

Source: ZVEI: Die Elektroindustrie – Brandschutzkabel erhöhen die Sicherheit vom 12.10.2016



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VARIANTS FROM
P. 70

Application:

For fixed installation indoor and outdoor
In cable ducts, tubes and interconnections
Mechanical installation by winch is permitted only when using force meters with recording function
Not suitable for underground laying (direct buried)

Characteristics:

Universal cable
Longitudinally waterproof
Non-metallic, halogen-free, rodent protection
suitable for connector assembly

Outer Jacket:

Euro Flame resistance class: see table
Halogen-free and flame-retardant material (FRNC)

Standards:

Harmonised Standard: EN 50575
Flame retardant: IEC 60332-3-24 and IEC 60332-1-2
Halogen-free: IEC 60754-1
Acidity of the combustion gases: IEC 60754-2
Low smoke: IEC 61034
No resistance to oil, petrol, acid and leach

The cable diameter can vary

Temperature Range (Operation): see table
Temperature Range (Storage): -40 – 80 °C
Temperature Range (Installation): -20 – 60 °C

U-DQ(ZN)BH 9/125µ G657A1



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54404.1L-CPR	04E (1 x 4) Singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54408.1L-CPR	08E (1 x 8) Singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54412.1L-CPR	12E (1 x 12) Singlemode G.657.A1	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54424.1L-CPR	24E (1 x 24) Singlemode G.657.A1	7.5 mm	150 mm	black	1750 N	-20 – 60 °C	Dca
54448.1L-CPR	48E (4 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	Eca
54496.1L-CPR	96E (8 x 12) Singlemode G.657.A1	13.1 mm	200 mm	black	5000 N	-40 – 80 °C	Eca
544144.1L	144E (12 x 12) Singlemode G.657.A1	16,0 mm	240 mm	black	5000 N	-40 – 80 °C	Eca

U-DQ(ZN)BH 50/125µ OM5



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54504.10M5-CPR	4G (1 x 4) Multimode OM5	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54512.10M5-CPR	12G (1 x 12) Multimode OM5	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54524.10M5-CPR	24G (1 x 24) Multimode OM5	7.5 mm	150 mm	black	1750 N	-20 – 60 °C	Dca

U-DQ(ZN)BH 50/125µ OM4



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54504.2L-CPR	4G (1 x 4) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54508.2L-CPR	8G (1 x 8) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54512.2L-CPR	12G (1 x 12) Multimode OM4	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54524.2L-CPR	24G (1 x 24) Multimode OM4	7.5 mm	150 mm	black	1750 N	-20 – 60 °C	Dca
54548.2L-CPR	48G (4 x 12) Multimode OM4	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	Eca

U-DQ(ZN)BH 50/125µ OM3



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54504.1L-CPR	4G (1 x 4) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54508.1L-CPR	8G (1 x 8) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54512.1L-CPR	12G (1 x 12) Multimode OM3	7.0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54524.1L-CPR	24G (1 x 24) Multimode OM3	7.5 mm	150 mm	black	1750 N	-20 – 60 °C	Dca
54548.1L-CPR	48G (4 x 12) Multimode OM3	11.2 mm	170 mm	black	5000 N	-40 – 80 °C	Eca

U-DQ(ZN)BH 50/125µ OM2



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
54204.1L-CPR	4G (1 x 4) Multimode OM2	7,0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54208.1L-CPR	8G (1 x 8) Multimode OM2	7,0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54212.1L-CPR	12G (1 x 12) Multimode OM2	7,0 mm	140 mm	black	1750 N	-20 – 60 °C	Dca
54224.1L-CPR	24G (1 x 24) Multimode OM2	7,5 mm	150 mm	black	1750 N	-20 – 60 °C	Dca
54248.1L-CPR	48G (4 x 12) Multimode OM2	11,2 mm	170 mm	black	5000 N	-40 – 80 °C	Eca



CABLE CODES & CLASSIFICATIONS

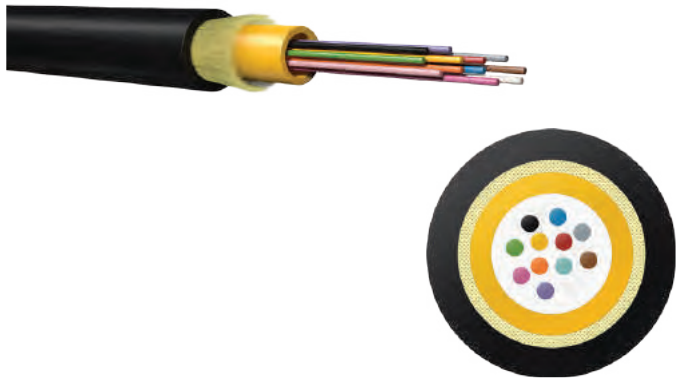
OM-Classification ISO/IEC 11801		OM1	OM2	OM3	OM4	OM5
Min. modal bandwidth with overfilled launch [MHz*km]	850 nm	200	500	1500	3500	4700
	1300 nm	500	500	500	500	2470
Min. modal bandwidth EMB (effective laser bandwidth) [MHz*km]	850 nm	n/s	n/s	2000	4700	n/s
Attenuation[dB/km]	1300 nm	1.5	1.5	1.5	1.5	1,5
	850 nm	3.5	3.5	3.5	3.5	3,5

Fiber Grade	Core/Cladding	Attenuation[dB/km]		Gigabit	Gigabit	10Gigabit	25 Gigabit	40 Gigabit	100 Gigabit
		1300nm	850nm	1000BaseSX	1000BaseLX	10GBaseSR	25GBaseSR	40GBaseSR4	100GBaseSR4
OM1	62.5/125µ	1.5	3.5	275 m	550 m	ca. 30 m	-	-	-
OM2	50/125µ	1.5	3.5	550 m	550 m	ca. 80 m	-	-	-
OM3	50/125µ	1.5	3.5	1000 m	550 m	300 m	70 m	100 m	70 m
OM4	50/125µ	1.5	3.5	>1000 m	550 m	550 m	100 m	150 m	100 m
OM5	50/125µ	1,5	3,5	>1000 m	550 m	550 m	440 m	150 m	150 m

BLP = Modal Bandwidth

Number	Parameters	Abbreviation	Property
1	Cable type	I	Indoor cable
		A	Outdoor cable
		AT	Breakout cable
2	Fiber protection	F	Fiber with 250 µm buffer
		V	Full core, i.e. F with 900 µm buffer
		H	Hollow core, one fiber dry
		W	Hollow core filled with GEL
		B	Bundled core, many fibers dry
		D	Bundled core filled with GEL
		S	Metal strand as cable core
3	Central element	S	Metal strand as cable core
4	Cable filling	F	Hollow core filled with GEL
5	Outer jacket	H	Halogen-free material
		Y	PVC (polyvinyl chloride)
		2Y	PE (poly ethylene)
		(L)2Y	Sheath with PE
		(D)2Y	PE with plastic barrier layer
		(ZN)2Y	PE with non-metallic strain relief
		(BN)2Y	PE with non-metallic glas-fiber yarn armouring
6	Armouring	4Y	PA (rodent-proof polyamide)
		11Y	PUR (polyurethane, elastic, chemically resistant)
		B	Armouring, general
		BY	Armouring plus PVC protective sheath
		B2Y	Armouring plus PE protective sheath
		Q	Swelling fleece wrap
7	Number of fibers	e.g.: 6	6 full cores or cable
		4 x 6	4 bundle cores, each with 6 fibers
8	Fiber Type	E	Single-mode fiber (Single-mode)
		G	Gradient index fiber (Multi-mode)
		S	Step index fiber, glass/glass
		K	Step index fiber, glass/plastic
		P	Plastic fiber
9	Fiber core	µm	e.g.: 9, 50 or 62.5
10	Fiber jacket	µm	e.g.: 125
11	Attenuation	dB/km	at the wavelength of No. 12
12	Wavelength	B	850 nm
		F	1300 nm (MM) and 1310 nm (SM)
		H	1550 nm
13	Dispersion	MHz x km	Bandwidth on multimode fibers
		ns/km	with single-mode also ps/nm/km
14	Special types	LG	Layer stranding of the cable
		SZ	SZ stranding of the cable

 YOU WILL FIND PRE-ASSEMBLED VARIANTS FROM P. 70



Application:
 For fixed installation outdoor
 In cable ducts, tubes and interconnections
 Primary cabling (Campus), Backbone

Characteristics:
 PE-Jacket black, metall-free, longitudinal waterproof, halogen-free
 UV-resistant, rodent resistant
 Resistant to oil, petrol, acid and leach
 Central/Loose tubes, 250µm-coating

Standards:
 Longitudinal waterproof: IEC 60794-1-2
 Transmission specifications: IEC 60793
 Cabling: ISO/IEC 11801, EN 50173

The cable diameter can vary
 Temperature Range (Operation): see table
 Temperature Range (Storage): -40 – 70 °C
 Temperature Range (Installation): -15 – 50 °C

Outdoor Cable A-DQ (ZN)B2Y SM G657.A1

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55404.1	04E (1 x 4) Singlemode G.657.A1	7.1 mm	140 mm	black	1750 N	-25 – 60 °C
55408.1	08E (1 x 8) Singlemode G.657.A1	7.1 mm	140 mm	black	1750 N	-25 – 60 °C
55412.1	12E (1 x 12) Singlemode G.657.A1	7.1 mm	140 mm	black	1750 N	-25 – 60 °C
55424.1	24E (1 x 24) Singlemode G.657.A1	7.3 mm	150 mm	black	1750 N	-25 – 60 °C
55448.1	48E (4 x 12) Singlemode G.657.A1	11.2 mm	170 mm	black	4000 N	-40 – 60 °C
55472.1	72E (6 x 12) Singlemode G.657.A1	11.6 mm	175 mm	black	4000 N	-40 – 60 °C
55496.1	96E (8 x 12) Singlemode G.657.A1	13.1 mm	200 mm	black	4000 N	-40 – 60 °C
554144.1	144E (12 x 12) Singlemode G.657.A1	16.0 mm	320 mm	black	4000 N	-40 – 60 °C

Outdoor Cable A-DQ (ZN)B2Y MM OM4

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.10M4A	4G (1 x 4) Multimode OM4	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55208.10M4A	8G (1 x 8) Multimode OM4	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55212.10M4A	12G (1 x 12) Multimode OM4	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55224.10M4A	24G (2 x 12) Multimode OM4	7.2 mm	72 mm	black	2000 N	-25 – 60 °C
55248.10M4	48G (4 x 12) Multimode OM4	11.0 mm	165 mm	black	3200 N	-30 – 70 °C

Outdoor Cable A-DQ(ZN)B2Y MM OM3

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.10M3A	4G (1 x 4) Multimode OM3	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55208.10M3A	8G (1 x 8) Multimode OM3	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55212.10M3A	12G (1 x 12) Multimode OM3	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55224.10M3A	24G (2 x 12) Multimode OM3	7.2 mm	72 mm	black	2000 N	-25 – 60 °C
55248.10M3	48G (4 x 12) Multimode OM3	11.0 mm	165 mm	black	3200 N	-30 – 70 °C

Outdoor Cable A-DQ(ZN)B2Y MM OM2

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
55204.1A	4G (1 x 4) Multimode OM2	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55208.1A	8G (1 x 8) Multimode OM2	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55212.1A	12G (1 x 12) Multimode OM2	6.0 mm	60 mm	black	2000 N	-25 – 60 °C
55224.1A	24G (2 x 12) Multimode OM2	7.2 mm	72 mm	black	2000 N	-25 – 60 °C
55248.1A	48G (4 x 12) Multimode OM2	7.2 mm	72 mm	black	2000 N	-25 – 60 °C



Fields of application:
 For building connections
 For campus cabling
 For use in plastic pipe systems
 For installation in cable ducts and on flatbeds

Characteristics:
 Easy to use construction
 Gel-free cable construction for clean and fast assembly
 Small dimensions
 High laying stability
 Fire behaviour tested and certified according to
 Construction Products Ordinance (see Euro fire class)

Cable diameter may vary

Temperature Range (Operation): see table
 Temperature Range (Storage): -25 – 70 °C
 Temperature Range (Installation): -5 – 50 °C

INFRALAN® I-B(ZN)BH 12E 9/125μ, OS2



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
56312.10S2-CPR	12E (1 x 12) Singlemode G.657.A1	6.5 mm	130 mm	yellow	1500 N	-25 – 60 °C	B2ca
56324.20S2-CPR	24E (2 x 12) Singlemode G.657.A1	8.3 mm	166 mm	yellow	3000 N	-10 – 70 °C	B2ca
56348.20S2-CPR	48E (4 x 12) Singlemode G.657.A1	8.3 mm	166 mm	yellow	3000 N	-10 – 70 °C	B2ca

INFRALAN® I-B(ZN)BH 12G 50/125μ, OM4



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
56312.10M4-CPR	12G (1 x 12) Multimode OM4	6.5 mm	130 mm	erica-violet	1500 N	-25 – 60 °C	B2ca
56324.20M4-CPR	24G (2 x 12) Multimode OM4	8.3 mm	166 mm	erica-violet	3000 N	-10 – 70 °C	B2ca
56348.20M4-CPR	48G (4 x 12) Multimode OM4	8.3 mm	166 mm	erica-violet	3000 N	-10 – 70 °C	B2ca

INFRALAN® I-B(ZN)BH 12G 50/125μ, OM3



Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
56312.10M3-CPR	12G (1 x 12) Multimode OM3	6.5 mm	130 mm	aqua	1500 N	-25 – 60 °C	B2ca
56324.20M3-CPR	24G (2 x 12) Multimode OM3	8.3 mm	166 mm	aqua	3000 N	-10 – 70 °C	B2ca
56348.20M3-CPR	48G (4 x 12) Multimode OM3	8.3 mm	166 mm	aqua	3000 N	-10 – 70 °C	B2ca


 YOU WILL FIND
 PRE-ASSEMBLED
 VARIANTS FROM
 P. 70



Indoor application
 Installation in shafts, underfloor area
 Secondary cabling (vertical): riser area (backbone)
 Tertiary cabling (horizontal): working area, fiber-to-the-desk FTTD
 Trunk cable, patch- and adapter cable
 Indoor cable
 Non-metallic, halogenfree, gel free
 Suitable for connector assembly
 Operation: -20°C ~ 60°C
 Installation: -5°C ~ 50°C

Temperature Range (Operation): see table
 Temperature Range (Storage): -25 – 70 °C
 Temperature Range (Installation): -5 – 50 °C

Breakout Indoor cable I-V (ZN) HH, OS2

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55902.1	02E (2 x 2,8) Singlemode OS2	3.9x6.8 mm	60 mm	yellow	400 N	-20 – 60 °C	Eca
55904.1	04E (4 x 2,8) Singlemode OS2	8.5 mm	150 mm	yellow	1000 N	-20 – 60 °C	Eca
55908.1	08E (8 x 2,8) Singlemode OS2	12.1 mm	210 mm	yellow	2000 N	-20 – 60 °C	Eca
55912.1	12E (12 x 2,8) Singlemode OS2	15.8 mm	275 mm	yellow	2700 N	-20 – 60 °C	Eca

Breakout Indoor cable I-V(ZN)HH, OM5

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55002.10M5	02G (2 x 2,8) Multimode OM5	3.9x6.8 mm	60 mm	green	400 N	-20 – 60 °C	Eca

Breakout Indoor cable I-V (ZN) HH, OM4

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55002.10M4	02G (2 x 2,8) Multimode OM4	3.9x6.8 mm	60 mm	aqua	400 N	-20 – 60 °C	Eca
55004.10M4	04G (4 x 2,8) Multimode OM4	8.5 mm	150 mm	aqua	1000 N	-20 – 60 °C	Eca
55008.10M4	08G (8 x 2,8) Multimode OM4	12,1 mm	210 mm	aqua	2000 N	-20 – 60 °C	Eca

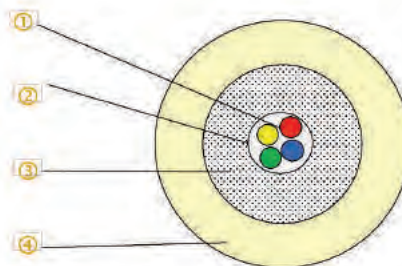
Breakout Indoor cable I-V (ZN) HH, OM3

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55002.10M3	02G (2 x 2,8) Multimode OM3	3.9x6.8 mm	60 mm	aqua	400 N	-20 – 60 °C	Eca
55004.10M3	04G (4 x 2,8) Multimode OM3	8.5 mm	150 mm	aqua	1000 N	-20 – 60 °C	Eca
55008.10M3	08G (8 x 2,8) Multimode OM3	12.1 mm	210 mm	aqua	2000 N	-20 – 60 °C	Eca
55012.10M3	12G (12 x 2,8) Multimode OM3	15.8 mm	275 mm	aqua	2700 N	-20 – 60 °C	Eca

Breakout Indoor cable I-V (ZN) HH, OM2

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
55002.1	02G (2 x 2,8) Multimode OM2	3.9x6.8 mm	60 mm	orange	400 N	-20 – 60 °C	Eca
55004.1	04G (4 x 2,8) Multimode OM2	8.5 mm	150 mm	orange	1000 N	-20 – 60 °C	Eca
55008.1	08G (8 x 2,8) Multimode OM2	12.1 mm	210 mm	orange	2000 N	-20 – 60 °C	Eca
55012.1	12G (12 x 2,8) Multimode OM2	15.8 mm	275 mm	orange	2700 N	-20 – 60 °C	Eca

- ① - Optical fiber : Optical fiber 250µm
- ② - Thermoplastic sheath: Microbundle 800µm LSOH
- ③ - Strength members : Aramid yarns
- ④ - Outer sheath : LSOH NF EN 50290-2-27 Compliant



YOU WILL FIND PRE-ASSEMBLED VARIANTS FROM P. 22

FTTH Indoor Drop Cable LSOH

Temperature Range (Operation): see table
 Temperature Range (Storage): -40 – 70 °C
 Temperature Range (Installation): -5 – 50 °C

Art.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)	Euroclass
FTTH-DROP-2	2 x Singlemode G.657.A2	3.0 mm	20 mm	ivory	15da N	-5 – 70 °C	Dca
FTTH-DROP-4	4 x Singlemode G.657.A2	2.65 mm	15 mm	ivory	15da N	-5 – 60 °C	Dca



Broadband Cable MDIC - Micro Drop Installations Cable

Micro Drop Installation Cable, special access cable with low bend radius, no waterpeak G.657.A1 fibers. Ruggedized construction with excellent installation performance, easy strippable for fast installation. This cable solves all installation problems.

Temperature Range (Operation): see table
 Temperature Range (Storage): -30 – 70°C
 Temperature Range (Installation): -10 - 50°C

Artl.-No.	Construct	Cable Ø	Bending radius	Colour outer sheath	Tensile Force	Temperature Range (Operation)
56204.3	2 x Singlemode G.657.A1	2.0 x 3.1 mm	30 mm	white	150 N	-30 - 70 °C
56204.4	4 x Singlemode G.657.A1	3.7 mm	37 mm	white	150 N	-30 - 70 °C



Drawing-In Tube Standard

- Line outside diameter max. 6-15 mm, solid, flexible plastic tube
- Outside diameter 40 mm
- Reusable

Art.-No.	Description
B9000.1	Drawing-In Tube with PG screwing, 1m
B9000.1,5	Drawing-In Tube with M40 screwing, 1,5m, for 25-48 connector

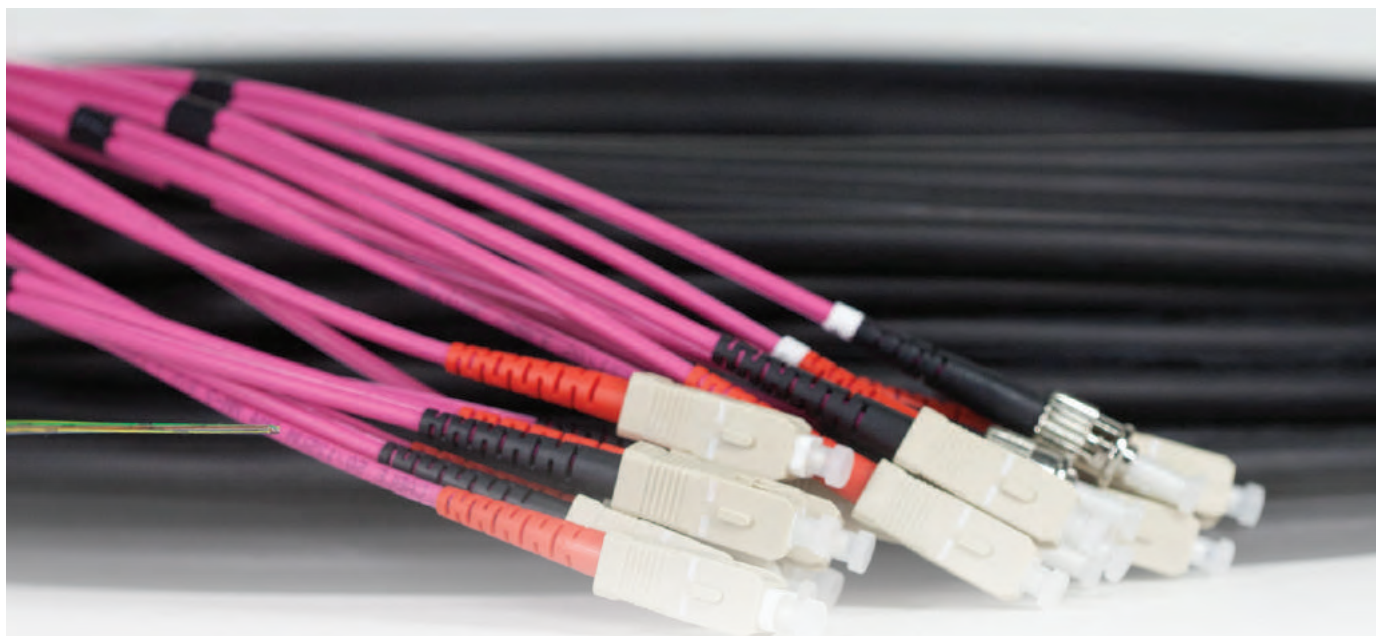


Drawing-in tube, tissue with zipper

Professional drawing-in tube
 Possible cable diameter 30mm
 Material: plastic
 Zippered for easy installation
 Length: 1m

Art.-No.	Description
B9004.1	Drawing-in tube, tissue with zipper, diameter 30mm, 1m

TRUNK CABLES / PRE- ASSEMBLED INSTALLATION CABLES //



Trunk cable Universal in stock	P. 71
Trunk cable Universal	P. 72
Trunk cable outdoor	P. 73
Trunk cable indoor	P. 74

// YOU MAY ALSO BE INTERESTED IN:

Splice Boxes	P. 42 - 47
Splicing- & Measurement Equipment	P. 104
Closures	P. 34
Accessory (Splice Cassette, Splice Protection)	P. 59
Adapters	P. 92 - 94
Cleaning Tools	P. 96

ASSEMBLED BREAKOUT BOXES CAN BE FOUND FROM P. 45



EFB sets standards in high quality

For many years, EFB has been offering individual fiber optic assemblies from its own production for insertion into cable ducts and shafts. Now there is also a standard line, which is kept in stock. These are pre-assembled trunk cables with LC connectors in the OS2, OM3 and OM4 categories. The stocked lengths can be found in the overview below.

Advantages:

Fast delivery: standard lengths up to 200 m in standard quantities available from stock

Reduction of installation costs: No splicing and assembly equipment required

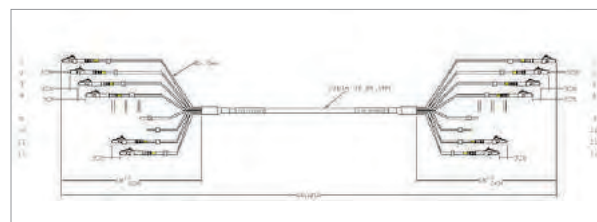
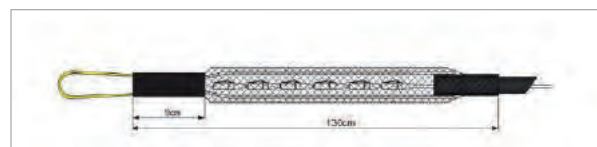
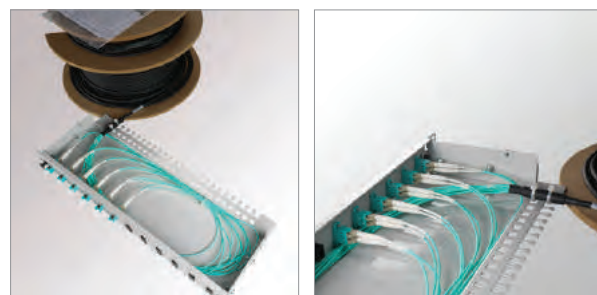
Reduced installation time: cable ready for direct installation

Traceable quality: cable with serial number and measurement protocol

Performance features:

- 4, 8 or 12 fibers per cable
- Fibre class OS2, OM3 or OM4
- Factory production, polishing and function test
- Double-sided assembled stepped cable whips (longest length 1 m)
- Identification of the remote individual cables with cable markers (numbers)
- Serial number on the cable
- Attenuation protocol for each individual fiber is provided
- Delivery on both sides with fabric hose as drawing-in tube
- Delivery up to 40 m in polybag, from 50 m on disposable drum
- CPR-Class Dca
- Length of the draw-in tube of 130cm, diameter: 4 fiber approx. 10mm, 8 fiber approx. 15mm, 12 fiber approx. 20mm

- Operating Temperature: 0 – 50 °C
- Storage Temperature: -20 – 70 °C
- Fiber type: Multimode 50/125
- Max. Tension: 200 N
- Min. bending radius (Static): 90 mm
- Min. bending radius (Dynamic): 180 mm
- Cable type: U-DQ (ZN) BH
- Cable Ø: 6,0 mm
- Colour outer sheath: black
- Jacket Material: LSZH



10 m - 20 m - 30 m - 40 m - 50 m - 60 m - 70 m - 80 m - 90 m - 100 m - 110 m - 120 m - 130 m - 140 m - 150 m - 160 m - 170 m - 180 m - 190 m - 200 m

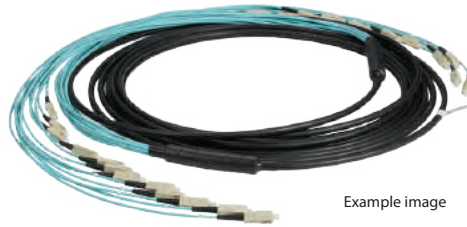
Trunk cable U-DQ(ZN)BH 50/125, LC/LC OM4

Art.-No.	Type of connector connection 1	Type of connector connection 2	Number of fibers
08303LxxOM4	4 x LC, beige	4 x LC, beige	4
08322LxxOM4	8 x LC, beige	8 x LC, beige	8
08342LxxOM4	12 x LC, beige	12 x LC, beige	12

Trunk cable U-DQ(ZN)BH 50/125, LC/LC OM3

Art.-No.	Type of connector connection 1	Type of connector connection 2	Number of fibers
08303LxxOM3	4 x LC, beige	4 x LC, beige	4
08322LxxOM3	8 x LC, beige	8 x LC, beige	8
08342LxxOM3	12 x LC, beige	12 x LC, beige	12

Please enter the length of the trunk cable for xx



Example image

FOR UNASSEMBLED VARIANTS, SEE P. 62

Universal cable U-DQ(ZN) BH G657A 9/125µm					
	4	8	12	24	48
LC - SC	08430.x	08432.x	08442.x	08829.x	
ST - LC	08123.x	08133.x	08143.x	08828.x	08844.x
LC - SC-APC	08418.x	08438.x	08446.x	08827.x	
ST - SC	08801.x	08451.x	08811.x	08161.x	08845.x
SC - E2000®	08126.x	08460.x	08147.x	08826.x	
SC - SC-APC	08422.x	08435.x	08443.x	08162.x	
LC - E2000®	08417.x	08455.x	08148.x	08830.x	
ST - E2000®	08124.x	08454.x	08144.x	08833.x	
E2000®-APC - LC	08416.x	08463.x	08807.x		
E2000®-APC - LC-APC	08805.x	08465.x	08808.x	08818.x	
E2000®-APC - SC	08803.x	08464.x	08809.x	08822.x	
E2000®-APC - SC-APC	08804.x	08466.x	08810.x	08824.x	
LC - LC	08122.x	08132.x	08814.x	08832.x	08842.x
SC - SC	08421.x	08431.x	08441.x	08831.x	08841.x
ST - ST	08121.x	08131.x	08141.x	08821.x	08840.x
E2000® - E2000®	08125.x	08461.x	08146.x	08834.x	08855.x
E2000®-APC - E2000®-APC			08816.x	08820.x	08852.x
SC-APC - SC-APC	08428.x	08439.x	08445.x	08835.x	

Universal cable U-DQ(ZN)BH OM5 50/125µ		
	4	24
LC - LC	08303.xOM5	
SC - SC	08301.xOM5	08382.xOM5

Universal cable U-DQ(ZN) BH OM4 50/125µm					
	4	8	12	24	48
LC - LC	08303.xOM4	08322.xOM4	08342.xOM4	08392.xOM4	08193.xOM4
ST - ST	08201.xOM4	08221.xOM4	08241.xOM4	08381.xOM4	08192.xOM4
LC - SC	08302.xOM4	08325.xOM4	08344.xOM4	08393.xOM4	08198.xOM4
ST - SC	09711.xOM4	09731.xOM4	09751.xOM4	08390.xOM4	08190.xOM4
ST - LC	08307.xOM4	08223.xOM4	08242.xOM4	08391.xOM4	
SC - SC	08301.xOM4	08321.xOM4	08341.xOM4	08382.xOM4	08191.xOM4

Universal cable U-DQ(ZN) BH OM3 50/125µm					
	4	8	12	24	48
SC - SC	08301.xOM3	08321.xOM3	08341.xOM3	08382.xOM3	08191.xOM3
LC - LC	08303.xOM3	08322.xOM3	08342.xOM3	08392.xOM3	08193.xOM3
LC - SC	08302.xOM3	08325.xOM3	08344.xOM3	08393.xOM3	08198.xOM3
ST - SC	09711.xOM3	09731.xOM3	09751.xOM3	08390.xOM3	08190.xOM3
ST - ST	08201.xOM3	08221.xOM3	08241.xOM3	08381.xOM3	08192.xOM3
ST - LC	08307.xOM3	08223.xOM3	08242.xOM3	08391.xOM3	

Universal cable U-DQ(ZN) BH OM2 50/125µm					
	4	8	12	24	48
ST - ST	08201.x	08221.x	08241.x	08381.x	08192.x
SC - SC	08301.x	08321.x	08341.x	08382.x	08191.x
LC - SC	08302.x	08325.x	08344.x	08393.x	
LC - LC	08303.x	08322.x	08342.x	08392.x	
ST - SC	09711.x	09731.x	09751.x	08390.x	08190.x
LC - ST	08307.x	08223.x	08242.x	08391.x	08197.x

Universal cable U-DQ(ZN) BH OM1 62.5/125µm				
	4	8	12	24
SC - SC	08311.x	08331.x	08351.x	08181.x
LC - LC	08214.x	08332.x	08360.x	08182.x
LC - SC	08312.x	08333.x	08352.x	08183.x
ST - ST	08211.x	08231.x	08251.x	08281.x
ST - LC	08212.x	08334.x	08252.x	08283.x
ST - SC	09721.x	09741.x	09761.x	08291.x



Example image

Outdoor cable A-DQ(ZN) B2Y G657A 9/125µm

	4	8	12	24
SC - SC	08421.xADQ		08441.xADQ	08831.xADQ
ST - ST	08121.xADQ	08131.xADQ	08141.xADQ	08821.xADQ
LC - LC	08122.xADQ	08132.xADQ	08814.xADQ	08832.xADQ
LC - ST	08123.xADQ	08133.xADQ	08143.xADQ	08828.xADQ
LC - SC	08430.xADQ	08432.xADQ	08442.xADQ	08829.xADQ
ST - SC	08801.xADQ	08451.xADQ	08811.xADQ	08161.xADQ

Outdoor cable A-DQ(ZN) B2Y OM4 50/125µm

	8	12
LC - SC	08325.xADQOM4	
ST - ST		08241.xADQOM4

Outdoor cable A-DQ(ZN) B2Y OM3 50/125µm

	4	8	12	24
SC - SC		08321.xADQOM3	08341.xADQOM3	08382.xADQOM3
ST - ST		08221.xADQOM3	08241.xADQOM3	08381.xADQOM3
ST - SC	09711.xADQOM3	09731.xADQOM3	09751.xADQOM3	08390.xADQOM3
ST - LC	08307.xADQOM3	08223.xADQOM3	08242.xADQOM3	08391.xADQOM3
LC - LC	08303.xADQOM3	08322.xADQOM3	08342.xADQOM3	08392.xADQOM3
SC - LC	08302.xADQOM3	08325.xADQOM3	08344.xADQOM3	08393.xADQOM3

Outdoor cable A-DQ(ZN) B2Y OM2 50/125µm

	4	8	12	24
ST - LC	08307.xADQ	08223.xADQ	08242.xADQ	08391.xADQ
LC - LC	08303.xADQ	08322.xADQ	08342.xADQ	08392.xADQ
ST - SC	09711.xADQ	09731.xADQ	09751.xADQ	08390.xADQ
SC - LC	08302.xADQ	08325.xADQ	08344.xADQ	08393.xADQ
SC - SC				08382.xADQ



Drawing-In Tube

Line outside diameter max. 6-15 mm, solid, flexible plastic tube, outside diameter 40 mm, Reusable

Art.-No.	Description
B9000.1	Drawing-In Tube with PG screwing, 1m
B9000.1,5	Drawing-In Tube with M40 screwing, 1,5m, for 25-48 connector



Drawing-in tube, tissue with zipper

Professional drawing-in tube
Possible cable diameter 30mm
Material: plastic
Zippered for easy installation
Length: 1m

Art.-No.	Description
B9004.1	Drawing-in tube, tissue with zipper, diameter 30mm, 1m



YOU WILL FIND UNASSEMBLED VARIANTS ON P. 62

Breakout cable I-V(ZN) HH OS2 9/125µm

	2	4	8	12
LC - SC	01790.x	01820.x	01832.x	01873.x
ST - LC	01792.x	01712.x	01732.x	01752.x
ST - ST	01800.x	01711.x	01731.x	01751.x
ST - SC	01801.x	01723.x	01740.x	01951.x
SC - SC	01802.x	01811.x	01831.x	01851.x
LC - LC	01803.x	01812.x	01840.x	01754.x
E2000®-APC - E2000®-APC	01770.x	01700.x	01843.x	01887.x
SC - SC-APC	01805.x	01815.x	01730.x	01879.x
SC-APC - SC-APC	01806.x	01818.x	01734.x	01885.x
E2000®-APC - LC	01774.x	01704.x	01841.x	01888.x
LC - SC-APC	01780.x	01713.x	01846.x	01881.x
LC - E2000®	01794.x	01719.x	01835.x	01755.x
ST - E2000®	01807.x	01714.x	01736.x	01825.x
SC - E2000®	01808.x	01718.x	01834.x	01865.x
E2000® - E2000®	01809.x	01716.x	01839.x	01824.x
ST - SC-APC	01783.x	01715.x	01733.x	01878.x

Breakout cable I-V(ZN) HH OM4 50/125µm

	2	4	8	12
ST - LC	06122.xOM4	06512.xOM4	06532.xOM4	09872.xOM4
ST - ST	06131.xOM4	06511.xOM4	06531.xOM4	06551.xOM4
SC - SC	06771.xOM4	06711.xOM4	06671.xOM4	06751.xOM4
LC - SC	06772.xOM4	06712.xOM4	06674.xOM4	06752.xOM4
LC - LC	06773.xOM4	06720.xOM4	06672.xOM4	09873.xOM4
ST - SC	09811.xOM4	09831.xOM4	09851.xOM4	09871.xOM4

Breakout cable I-V(ZN) HH OM3 50/125µm

	2	4	8	12
ST - LC	06122.xOM3	06512.xOM3	06532.xOM3	09872.xOM3
ST - ST	06131.xOM3	06511.xOM3	06531.xOM3	06551.xOM3
SC - SC	06771.xOM3	06711.xOM3	06671.xOM3	06751.xOM3
LC - SC	06772.xOM3	06712.xOM3	06674.xOM3	06752.xOM3
LC - LC	06773.xOM3	06720.xOM3	06672.xOM3	09873.xOM3
ST - SC	09811.xOM3	09831.xOM3	09851.xOM3	09871.xOM3
E2000® - E2000®	06774.xOM3		06534.xOM3	06754.xOM3
LC - E2000®	06123.xOM3	06713.xOM3		
SC - E2000®	06775.xOM3	06714.xOM3		

Breakout cable I-V(ZN) HH OM2 50/125µm

	2	4	8	12
ST - LC	06122.x	06512.x	06532.x	09872.x
ST - ST	06131.x	06511.x	06531.x	06551.x
SC - SC	06771.x	06711.x	06671.x	06751.x
LC - SC	06772.x	06712.x	06674.x	06752.x
LC - LC	06773.x	06720.x	06672.x	09873.x
ST - SC	09811.x	09831.x	09851.x	09871.x
E2000® - E2000®	06774.x	06514.x	06534.x	06754.x
SC - E2000®	06775.x	06714.x	06535.x	06753.x
ST - E2000®	06779.x	06715.x		
LC - E2000®	06123.x	06713.x		06755.x

Breakout cable I-V(ZN) HH OM1 62.5/125µm

	2	4	8	12
LC - ST	06892.x	06523.x	06545.x	
ST - ST	06141.x	06521.x	06541.x	06561.x
SC - SC	06781.x	06721.x	06681.x	06761.x
LC - SC	06890.x	06722.x	06682.x	06562.x
LC - LC	06891.x	06522.x	06542.x	06570.x
ST - SC	09821.x	09841.x	09861.x	09881.x



OUR FIBER OPTIC PRODUCTION



One of our own manufacturing plants in Germany is located in Sonneberg. This location is specialised in the assembly of fiber optic cables, subracks, FTTX components and special fixtures, as well as in fitting of splice boxes. We ensure the highest quality level due to :

- many years of experience and employees with a high level of expertise
- the use of state-of-the-art test/inspection technology, a production sequence process and the implementation of regular
- quality controls during serial production
- high stock availability of individual components and short production times
- R&M certified production processes for the serial production of E-2000 connectors to achieve the highest level of quality

To find out more details about our manufacturing plants in Germany, visit our website www.efb-elektronik.de/en/production

ASSEMBLY LEFT / RIGHT

Plug left / right ▼

Cable divider left / right ▼

Configurator for breakout and loose tube cables

- Easy and quick access to individual products
- Sensible alternative solutions in case of conflicts
- Configurations are saved automatically: Call up, edit and order again
- Individually customised live price calculation
- Requesting quotations online directly with the configurator
- Detailed product specifications
- On call twenty-four seven

CABLE SELECTION

Cable type ▼

Application ▼

Fiber grade ▼

Number of fibers ▼

Require length m

Manufacture length

Direct access to the configurator
konfigurator.efb-elektronik.de

FIBER PIGTAILS & JUMPER CABLES //



Patch cable/ Jumper	P. 77 - 84
Pre-assembled splice cassettes	P. 85
Service	P. 86 -87
Pigtails	P. 88 - 89

// YOU MAY ALSO BE INTERESTED IN:

Splice Boxes	P. 42 - 47
Media Converter	P. 318
Splice Devices	P. 104
Cleaning Tools	P. 96
Cable Management	P. 240
Adapters	P. 92 -94



- Discover our wide range of fiber optic jumpers: from standard jumpers to custom-made products
- Standard jumpers in various connector versions (e.g. LC-LC, SC-SC, LC-SC, E2000®) and in various cable versions
- Your advantage: short delivery times for standard variants

Overview Standard Duplex Jumper						
	OS2 acc. to ITU-T G.652.D	OM5	OM4	OM3	OM2	OM1
LC-Duplex, LC-Duplex	00350.x	00319.xOM5	00319.x	00312.x	00310.x	00330.x
LC-Duplex, SC-Duplex	00360.x	00323.xOM5	00323.x	00314.x	00320.x	03061.x
LC-Duplex, ST	00361.x		00326.x	00313.x	00321.x	00371.x
SC-Duplex, SC-Duplex	02513.x	00318.xOM5	00318.x	07413.x	06413.x	06423.x
SC-Duplex, ST	02073.x		00347.x	07353.x	06353.x	06363.x
ST, ST	02003.x		00348.x	07013.x	06013.x	06023.x
LC-Duplex, E2000®	00364.x		00341.x	00315.x		
E2000®, SC-Duplex	00940.x					
E2000®, ST	00909.x					

Duplex Jumper Matrix APC	
	OS2 acc. to ITU-T G.652.D
LC-Duplex, LC-Duplex	00381.x
LC-Duplex, SC-Duplex	00387.x
SC-Duplex, SC-Duplex	02561.x
SC-Duplex, LC-Duplex	00362.x
E2000®, E2000®	00933.x
E2000®, LC-Duplex	00937.x
LC-Duplex, E2000®	00389.x
E2000®, SC-Duplex	00939.x
E2000®, ST	00920.x





FIBER CONNECTORS AND ITS FEATURES



	SC-Connector Subscriber Connector	LC-Connector Lucent Connector	ST-Connector Straight Tip	DIN (LSA)-Connector Solder-, screw- and stripping-free
Relevant Producer	div.	div.	div.	div.
pro	low IL, sturdy Connector	low RL, small dimension, due to this high packing density	save lock due to bayonet locking	save lock due to screwing lock
con	no high packing density possible in comparance		high IL, measurement variation on mechanical forces	no high packing density possible in comparance
Connector cleaning/ Effect	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.
Application	FO link/Switch Systems, Optical MDF (Multi Distribution Frames), LAN, CATV, SONET/ SDH, ATM, WDM Communication Systems, measurement- and test devices			
Ferrule diameter	2,5mm	1,25mm	2,5mm	2,5mm
APC version possible(angled polish)	yes	yes	yes	yes
Typical IL	0,2 - 0,3dB	0,2dB	0,2 - 0,4dB	0,2dB
Suitable fiber	1	1	1	1
Standard	IEC 61754-4	IEC 61754-20	IEC 61754-2	IEC 874-6
Locking mechanism	Push Pull principle	clamping bracket lock	Bayonet lock	screwing lock



	E2000®-Connector	MPO/MTP®-Connector Multipath Push-On/ MTP®=Brand name	MTRJ-Connector Mechanical Transfer Registered Jack	FC-Connector Fiber Connector
Relevant Producer	Reichle & de Massari, Huber & Suhner, Diamond	US Conec	div.	div.
pro	patent registered Connector for WAN, required for WAN, integrated dust- and laser protection	small Connector with high ammount of connection possible, high packing density	Duplex housing	save lock due to screwing lock
con	high price, assembling can only be done by certified productions	complex assembling, high IL	high IL, low RL	no high packing density possible in comparance
Connector cleaning/ Effect	Poor connector cleaning affects the RL and IL. This can also damage the geometry of the connector section.			
Application	FO link/Switch Systems, Optical MDF (Multi Distribution Frames), LAN, CATV, SONET/ SDH, ATM, WDM Communication Systems, measurement- and test devices			FO link/Switch Systems, Optical MDF (Multi Distribution Frames), LAN, CATV, SONET/ SDH, ATM, WDM Communication Systems, measurement- and test devices
Ferrule diameter	2,5mm	MT- Ferrule	MT- Ferrule	2,5mm
APC version possible(angled polish)	yes	yes	yes	yes
Typical IL	0,2dB	0,3 - 0,5dB	0,3 - 0,5dB	0,2dB
Suitable fiber	1	4-96	2	1
Standard	IEC 61754-15	IEC 61754-5	IEC 61754-18	IEC 61754-13
Locking mechanism	Push Pull principle	Push Pull principle	clamping bracket lock	screwing lock

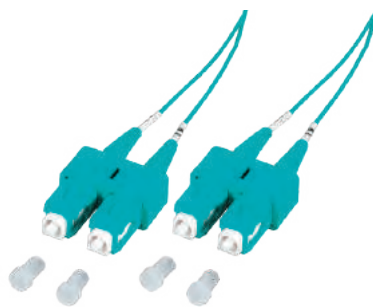
MTRJ-, FC-, DIN-Assemblies on request available

Optical Classes

Singlemode	Multimode
OS2 9/125µ G657 (A1, A2, B1, B2) 9/125µ G652D 9/125µ	OM5 50/125µ OM4 50/125µ OM3 50/125µ OM2 50/125µ OM1 62,5/125µ

Duplex Jumper 1.2mm

Duplex Jumper with 1.2 mm outer jacket
 Space-saving installation due to the small outer diameter
 Halogen free according to IEC-60754-2
 Flame retardant according to IEC-60332-1
 Low smoke according to IEC-61034
 Connector in colour of category (aqua, erika-violet or blue)
 LC connector in Compact design
 EFB fiber connectors meet the quality classes
 Grade B/2 according to IEC-61753-1 for Singlemode
 Grade A/1 according to IEC-61753-122-2 (Draft) for Multimode
 pre-coded
 100% tested and with individuell measuring protocol



2 mm cable
 1,2 mm cable

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10,0 m

Art.-No.	Category	Colour outer sheath	Connector
00350.xx-1.2	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, LC-Duplex blue
00360.xx-1.2	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, SC-Duplex blue
02513.xx-1.2	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex blue, SC-Duplex blue
00319.xx-1.2	OM4	erica-violet	LC-Duplex erika-violett, LC-Duplex erika-violett
00323.xx-1.2	OM4	erica-violet	LC-Duplex erika-violett, SC-Duplex erika-violett
00318.xx-1.2	OM4	erica-violet	SC-Duplex erika-violett, SC-Duplex erika-violett
00312.xx-1.2	OM3	aqua	LC-Duplex aqua, LC-Duplex aqua
00314.xx-1.2	OM3	aqua	LC-Duplex aqua, SC-Duplex aqua
07413.xx-1.2	OM3	aqua	SC-Duplex aqua, SC-Duplex aqua

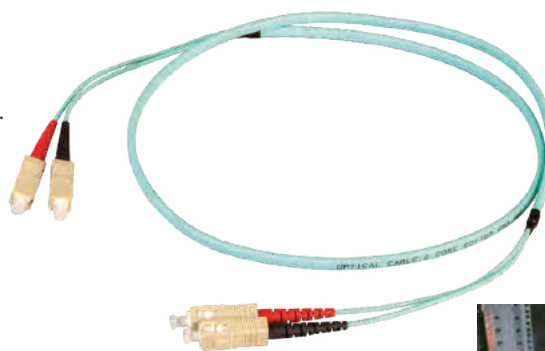
Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....1.2 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Duplex Jumper Flat Twin

The Flat Twin Duplex Jumper have a higher stability due to the additional added outer jacket and can be installed much easier than standard jumper. Also the jacket material is made of LSZH.

Characteristics

Additional outer jacket for higher stability and easier installation
 Cable sheath consists of flame retardant LSZH material
 Cable whip length of 150 mm inclusive connector
 Same colour of Cable whip and jacket material
 Compact cable diameter of 3x5 mm
 Simple allocation of the fibers with boots in different colours or A/B markers
 Possibility of coding with clips enclosed to the delivery



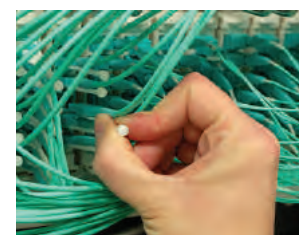
Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 35 - 40 - 45 - 50 m

Art.-No.	Category	Colour outer sheath	Connector
00350FT.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, LC-Duplex blue
00360FT.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, SC-Duplex blue
02513FT.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex blue, SC-Duplex blue
00319FT.x	OM4	erica-violet	LC-Duplex beige, LC-Duplex beige
00323FT.x	OM4	erica-violet	LC-Duplex beige, SC-Duplex beige
00318FT.x	OM4	erica-violet	SC-Duplex beige, SC-Duplex beige
00312FT.x	OM3	aqua	LC-Duplex beige, LC-Duplex beige
00314FT.x	OM3	aqua	LC-Duplex beige, SC-Duplex beige
07413FT.x	OM3	aqua	SC-Duplex beige, SC-Duplex beige

Cable type:.....I-V(ZN) HH
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....3x5 mm
 Operating Temperature:-40 – 70 °C
 Storage Temperature:-40 – 85 °C

Duplex Jumper HD Uniboot LC/UPC - LC/UPC

The LC HD Uniboot Jumper has a long unlock latch, due to unlock in the easiest way in HD patchpanel. The Polarity or Coding of the Duplex connector can be changed in the easiest way that it can reach the requirements of the application. The Jumper is available in the categories OM3, OM4 and G657A1.



Stock length: 0,50 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

Art.-No.	Category	Colour outer sheath	Connector
DJP-LCLCOS2-UNI-xx	G657A1 acc. to ITU-T G.657	yellow	LC blue, LC blue
DJP-LCLCOM4-UNI-xx	OM4	erica-violet	LC erica-violet, LC erica-violet
DJP-LCLCOM3-UNI-xx	OM3	aqua	LC aqua, LC aqua

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....3.0 mm
 Operating Temperature:-20 – 70 °C
 Storage Temperature:-20 – 70 °C

 YOU WILL FIND SUITABLE ADAPTERS ON PAGE 92




Duplex Jumper LC-LC

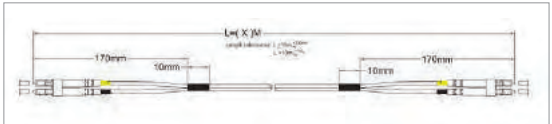
Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn
 Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034
 EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)
 100% tested and with individual measurement report

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature: -20 – 75 °C
 Storage Temperature:-20 – 85 °C

 Stock length: 0,50 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Art.-No.	Category	Colour outer sheath	Connector
00381.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, LC-Duplex 8° green
00384.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, LC-Duplex blue
00350BI.x	G657A2 acc. to ITU-T G.657	yellow	LC-Duplex blue, LC-Duplex blue
00350.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, LC-Duplex blue
00319.xOM5	OM5	lime green	LC-Duplex beige, LC-Duplex beige
00319.x	OM4	erica-violet	LC-Duplex beige, LC-Duplex beige
00312.x	OM3	aqua	LC-Duplex beige, LC-Duplex beige
00310.x	OM2	orange	LC-Duplex beige, LC-Duplex beige
00330.x	OM1	orange	LC-Duplex beige, LC-Duplex beige




Duplex Jumper LC-SC

Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn
 Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034
 EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)
 100% tested and with individual measurement report

Cable type:I-V(ZN) H
 Cable Construction:Duplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature: -20 – 75 °C
 Storage Temperature:-20 – 85 °C

 Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Art.-No.	Category	Colour outer sheath	Connector
00387.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, SC-Duplex 8° green
00383.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, SC-Duplex blue
00362.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex 8° green, LC-Duplex blue
00360BI.x	G657A2 acc. to ITU-T G.657	yellow	LC-Duplex blue, SC-Duplex blue
00360.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, SC-Duplex blue
00323.xOM5	OM5	lime green	LC-Duplex beige, SC-Duplex beige
00323.x	OM4	erica-violet	LC-Duplex beige, SC-Duplex beige
00314.x	OM3	aqua	LC-Duplex beige, SC-Duplex beige
00320.x	OM2	orange	LC-Duplex beige, SC-Duplex beige
03061.x	OM1	orange	LC-Duplex beige, SC-Duplex beige



Duplex Jumper LC-ST

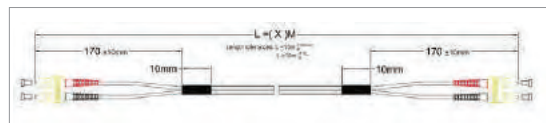
Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn
 Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034
 EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)
 100% tested and with individual measurement report

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Art.-No.	Category	Colour outer sheath	Connector
00361.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, ST
00326.x	OM4	erica-violet	LC-Duplex beige, ST
00313.x	OM3	aqua	LC-Duplex beige, ST
00321.x	OM2	orange	LC-Duplex beige, ST
00371.x	OM1	orange	LC-Duplex beige, ST



Duplex Jumper SC-SC

Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn
 Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034
 EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)
 100% tested and with individual measurement report

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Art.-No.	Category	Colour outer sheath	Connector
02561.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex 8° green, SC-Duplex 8° green
02513.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex blue, SC-Duplex blue
00318.xOM5	OM5	lime green	SC-Duplex beige, SC-Duplex beige
00318.x	OM4	erica-violet	SC-Duplex beige, SC-Duplex beige
07413.x	OM3	aqua	SC-Duplex beige, SC-Duplex beige
06413.x	OM2	orange	SC-Duplex beige, SC-Duplex beige
06423.x	OM1	orange	SC-Duplex beige, SC-Duplex beige

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Duplex Jumper SC-ST

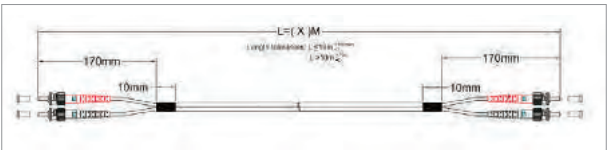
Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn
 Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034
 EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)
 100% tested and with individual measurement report

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:.....-20 – 85 °C

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Art.-No.	Category	Colour outer sheath	Connector
02073.x	OS2 acc. to ITU-T G.652.D	yellow	SC-Duplex blue, ST
00347.x	OM4	erica-violet	SC-Duplex beige, ST
07353.x	OM3	aqua	SC-Duplex beige, ST
06353.x	OM2	orange	SC-Duplex beige, ST
06363.x	OM1	orange	SC-Duplex beige, ST



Duplex Jumper ST-ST

Features of EFB fiber optic patch cables

Tension relief reinforced with aramid yarn
 Halogen-free and flame-retardant sheath according to IEC-60754-2, IEC-60332-1 and IEC-61034
 EFB fiber optic connectors meet the minimum quality class Grade B/2 according to IEC-61753-1 for singlemode and Grade A/1 for multimode according to IEC 61753-122-2 (UPC cut)
 100% tested and with individual measurement report

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:.....-20 – 85 °C

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Art.-No.	Category	Colour outer sheath	Connector
02003.x	OS2 acc. to ITU-T G.652.D	yellow	ST , ST
00348.x	OM4	erica-violet	ST , ST
07013.x	OM3	aqua	ST , ST
06013.x	OM2	orange	ST , ST
06023.x	OM1	orange	ST , ST



Duplex Jumper E2000®-E2000®

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Art.-No.	Category	Colour outer sheath	Connector
00933.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® 8° green, E2000® 8° green



Duplex Jumper E2000®-LC

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....2.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
00937.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® 8° green, LC-Duplex blue
00389.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex 8° green, E2000® 8° green
00364.x	OS2 acc. to ITU-T G.652.D	yellow	LC-Duplex blue, E2000® blue
00341.x	OM4	erica-violet	LC-Duplex beige, E2000® black
00315.x	OM3	aqua	LC-Duplex beige, E2000® black



Duplex Jumper E2000®-SC

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
00939.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® 8° green, SC-Duplex blue
00940.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® blue, SC-duplex blue



Duplex Jumper E2000®-ST

Cable type:.....I-V(ZN) H
 Cable Construction:.....Duplex
 Jacket Material:.....LSZH
 Cable Ø:.....3.0 mm
 Operating Temperature:-20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
00920.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® 8° green, ST
00909.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® blue, ST



Simplex Jumper LC-LC

Cable type:I-V(ZN) H
 Cable Construction:simplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature: -20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
02519.x	G657A2 acc. to ITU-T G.657	yellow	LC 8° green, LC 8° green
01403.x	G657A2 acc. to ITU-T G.657	yellow	LC 8° green, LC blue
00948.x	G657A2 acc. to ITU-T G.657	yellow	LC blue, LC blue



Simplex Jumper LC-SC

Cable type:I-V(ZN) H
 Cable Construction:simplex
 Jacket Material:LSZH
 Cable Ø:2.0 mm
 Operating Temperature: -20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
02531.x	G657A2 acc. to ITU-T G.657	yellow	SC 8° green, LC 8° green
00946.x	G657A2 acc. to ITU-T G.657	yellow	SC 8° green, LC blue
00947.x	G657A2 acc. to ITU-T G.657	yellow	LC blue, SC blue



Simplex Jumper SC-SC

Cable type:I-V(ZN) H
 Cable Construction:simplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature: -20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
00944.x	G657A2 acc. to ITU-T G.657	yellow	SC 8° green, SC 8° green
00928.x	G657A2 acc. to ITU-T G.657	yellow	SC 8° green, SC blue
01323.x	G657A2 acc. to ITU-T G.657	yellow	SC blue, SC blue



Simplex Jumper E2000®/APC-E2000®/APC

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature: -20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 0,50 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

Art.-No.	Category	Colour outer sheath	Connector
00833.x	OS2 acc. to ITU-T G.652.D	yellow	E2000® 8° green, E2000® 8° green



Simplex Jumper E2000®/APC-LC

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature: -20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
01420.x	G657A2 acc. to ITU-T G.657	yellow	E2000® 8° green, LC blue
00863.x	G657A2 acc. to ITU-T G.657	yellow	E2000® blue, LC blue



Simplex Jumper E2000®/APC-SC

Cable type:I-V(ZN) H
 Cable Construction:Simplex
 Jacket Material:LSZH
 Cable Ø:3.0 mm
 Operating Temperature: -20 – 75 °C
 Storage Temperature:-20 – 85 °C

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Category	Colour outer sheath	Connector
00923.x	G657A2 acc. to ITU-T G.657	yellow	E2000® 8° green, SC blue
00839.x	G657A2 acc. to ITU-T G.657	yellow	E2000® blue, SC blue



Equipped splice cassette with coloured stripped pigtails

Equipped splice cassette with pigtails in the categories OM3, OM4, OM5, OS2 and OS2/APC. These are available in LC and SC mating faces. The pigtails are stripped, inserted into the splice cassette and have a length of 80cm outside the cassette in order to be able to implement the cable routing in the splice box correspondingly easily. The pigtails used are colour-coded according to VDE-0888 with a solid-coloured coating and 12-coloured jacket. The measurement protocols of the individual fibers are enclosed in the packaging unit. In addition, the crimp splice holder (12 splices) is pre-assembled in the splice cassette, the shrink splice protector (2x à 6 splices) is enclosed in the packaging unit.



SPLICE BOXES
CAN BE FOUND
ON P. 42

Equipped splice cassette with coloured stripped pigtails, LC

Art.-No.	Category	Colour	Connector
53100.207	OS2 acc. to ITU-T G.652.D	12-colours	LC blue
53100.206	OM5	12-colours	LC lime green
53100.205	OM4	12-colours	LC erica-violet
53100.204	OM3	12-colours	LC aqua

Equipped splice cassette with coloured stripped pigtails, LC/APC

Art.-No.	Category	Colour	Connector
53100.212	OS2 acc. to ITU-T G.652.D	12-colours	LC/APC green

Equipped splice cassette with coloured stripped pigtails, SC

Art.-No.	Category	Colour	Connector
53100.211	OS2 acc. to ITU-T G.652.D	12-colours	SC blue
53100.210	OM5	12-colours	SC lime green
53100.209	OM4	12-colours	SC erica-violet
53100.208	OM3	12-colours	SC aqua

Equipped splice cassette with coloured stripped pigtails, SC/APC

Art.-No.	Category	Colour	Connector
53100.213	OS2 acc. to ITU-T G.652.D	12-colours	SC/APC green

Explanation of connectors and pigtails

Connector APC	green
Connector Multimode	beige
Connector Singlemode	blue
G657A	bend optimized Singlemode Fiber
OS2	Standard Singlemode Fiber

Required accessories

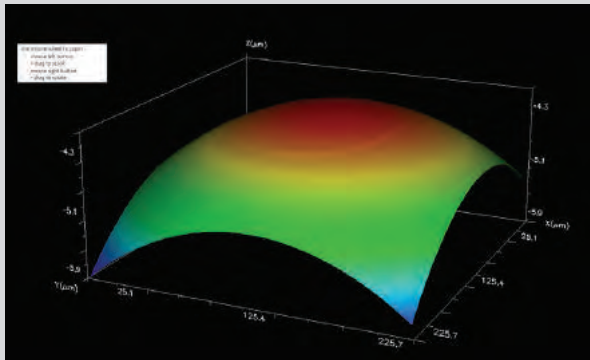
Splicing	Measurement
Crimp splice protection Shrink splice protection Splice cassette Splice holder Fiber tools Splice unit Crimp tool Heat oven Cleaning material	OTDR unit Attenuation measurement unit Cleaning material Fiber Checker Fiber microscope Launch fiber for OTDR Reference cords for attenuation measurement



OUR SERVICE IN THE FIELD OF FIBER OPTIC CABLING

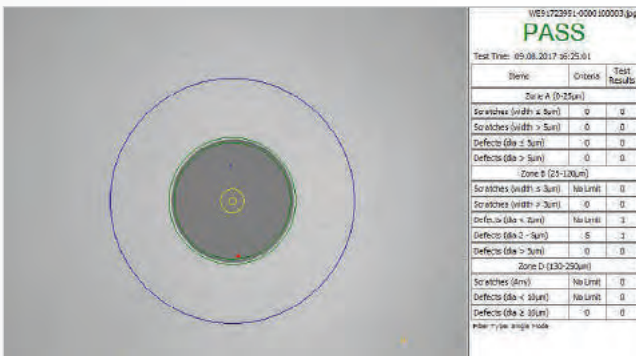
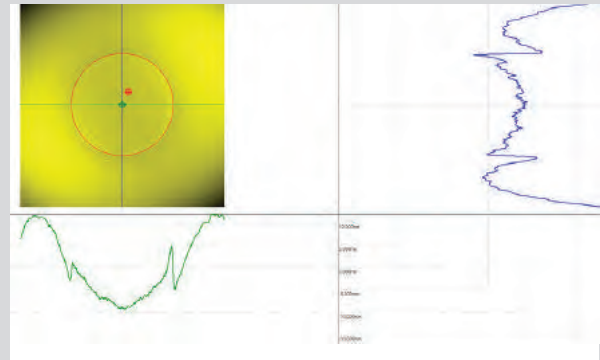
EFB-Elektronik offers various measurements for any kind of cabling of the portfolio. At the Headquarter in Bielefeld, interferometer measurements, OTDR measurements, Insertion Loss measurements or additional assessments of the connector end faces are carried out. The measured cables can be assigned via a serial number attached to the cable.

3D SURFACE:

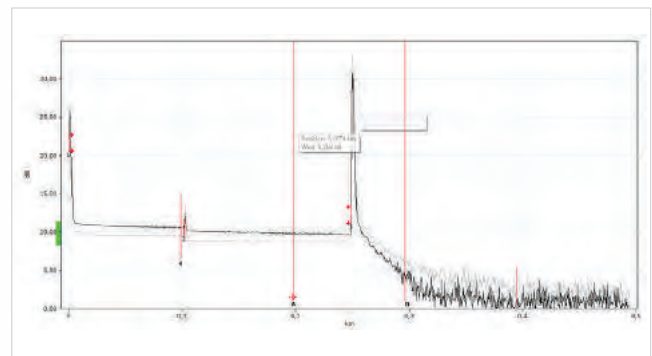


Interferometer Measurement

2D SUBTRACED SURFACE:



Connector endface inspection



OTDR-Measurement

Kabelkennung: 06#WE91735323-000020 **Testzusammenfassung: PASS**
 Datum/Uhrzeit: 21.11.2017 11:24:16 n = 1.4935 (850 nm) Modale Bandbreite: 500MHz-km (850 nm)
 Kabeltyp: OM2 Multimode 50 n = 1.4785 (1300 nm) Modale Bandbreite: 500MHz-km (1300 nm)

Dämpfung (H->R)		Lauflzeit (ns)		Anzahl Adapter: 1	
PASS		11	2.2	Jumper-Typ: OM2 Multimode 50	
Datum/Uhrzeit: 21.11.2017 11:24:16	Ergebn: 850 nm 1300 nm	Jumper-Länge (m): 1.0			
Grenzwert: ISO 14763-3	PASS PASS	Jumper-Länge (m): 1.0			
Grenzwert Version: 1.9900	0.39 0.39	Referenzdatum: 21.11.2017 10:06:06			
Bestener:	0.31 0.50	2 Jumper			
DTX-CLT (1471013 v2.7800)	Reserve (dB): 0.15 0.11				
Modul: DTX-MFM21 (469230)	Referenz (dBm): -22.58 -22.59				
Kalibrierungsdatum: 01.08.2017					
DTX-CLTR (1471014 v2.7800)					
Modul: DTX-MFM21 (469232)					
Kalibrierungsdatum: 01.08.2017					

Erteilte Veteork Standards:
 1010BASE-SX 1000BASE-LX 1000BASE-SX
 100BASE-FX 100BASE-FL 100BASE-LRM
 100BASE-L4 100BASE-SR ATM155
 ATM155SVL ATM2 ATM22 Fiber Optic
 FDD Fiber Optic Fiber Channel 100-M5-SN-I Fiber Channel 100-M5-SN-I
 Fiber Channel 100-M5E-SN-I Fiber Channel 1200-M5-SN-I Fiber Channel 1200-M5E-SN-I
 Fiber Channel 133 Fiber Channel 1600-M5-SN-S Fiber Channel 200-M5-SN-I
 Fiber Channel 200-M5E-SN-I Fiber Channel 266 Fiber Channel 266SVL
 Fiber Channel 400-M5-SN-I Fiber Channel 800-M5-SN-S Fiber Channel 800SVL

Insertion Loss Measurement



<p>1. DL0LWL-Dämpfung</p>	<p>IL measurement for FO Jumper inclusive, label with serial number, lead time for 200pcs. approx. 5 working days plus regular picking time</p>
<p>2. DL0LWL-OTDR</p>	<p>OTDR-measurement of FO Links inclusive label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time</p>
<p>3. DL0LWL-Interfero</p>	<p>Interferometer measurement for Connectors inclusive label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time</p>
<p>4. DLOWICKEL2</p>	<p>Assembling of label on both sides of cable, lead time for 200pcs. approx. 3 working days plus regular picking time</p>

* lead time for other quantities on request

OUR SERVICES AT A GLANCE:



PACKAGING & LABELS

- Individually packed in a neutral polybag or
- With a label with your logo



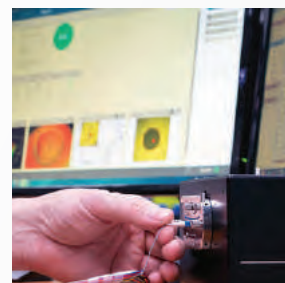
CABLE CUTTING & CABLE PRINTING

- Cable cutting to individual cable lengths
- Individual printing of the cables



FIBER OPTIC DUPLEX CLIPS

- 1:1 plugged clips or
- Cross Over



MEASUREMENTS INCLUDED WRAP-AROUND LABEL & SERIAL NUMBER

- Measurements for trunk, patch & fiber optic cables incl. test report and wrap-around label with serial number for each cable

Fiber Pigtails

EFB-Elektronik offers a wide portfolio of fiber optic pigtails in the categories Multimode (OM1, OM2, OM3, OM4, OM5) and Singlemode (OS2). These are available in single colour and 12-coloured version as well as with different connectors such as SC, LC, E2000® etc. The colour-code for the 12-coloured fiber pigtails is according to DIN VDE 0888 and the fiber is dyed accordingly except for the 250µ fiber. The fiber pigtails of EFB-Elektronik have a semi tight buffer as standard and are therefore very easy to use.

General Characteristics of Fiber Pigtails:

Max. Tension	3 N
Min. Bending Radius Static	9 mm
Min. Bending Radius Dynamic	18 mm
Outer Diameter	0.9 mm
Jacket Material	LSZH
Length	2,0 m
Operating Temperature	-20 – 70 °C
Cable Conform to Standard	IEC60793-2


 SPLICE
 BOXES CAN BE
 FOUND FROM
 P. 42



Pigtails - 12-coloured

	LC	SC	ST	LC/APC	SC/APC	E2000®/APC
OS2 acc. to ITU-T G.652.D	00481.2	01022.2	01004.2	00482.2	01015.2	00769.2
OM5	03483.2OM5	03326.2OM5		APC polish is not used in Multimode categories		
OM4	03483.2	03326.2	03307.2			
OM3	03482.2	03325.2	03305.2			
OM2	03484.2	03324.2	03304.2			

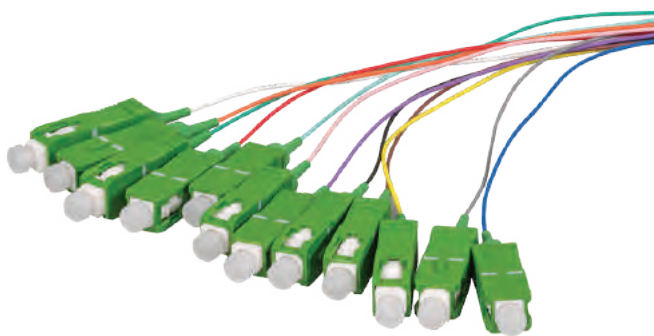


pigtails - single coloured

	LC	SC	ST	E2000®	LC/APC	SC/APC	E2000®/APC
OS2 acc. to ITU-T G.652.D	00480.2	01023.2	01003.2	00779.2	00485.2	01019.2	00770.2
OM5	03686.2OM5	03685.2OM5		APC polish is not used in Multimode categories			
OM4	03686.2	03685.2	03687.2				
OM3	03681.2	03623.2	03603.2				
OM2	03481.2	03323.2	03303.2				
OM1	03491.2	03333.2	03313.2				

Achievable return loss for different end face designs 

Shortcut	Description	Reflectivity	Return loss
PC	Physical Contact	< -30 dB	> 30 dB
SPC	Super Physical Contact	< -40 dB	> 40 dB
UPC	Ultra Physical Contact	< -50 dB	> 50 dB
APC	Angled Physical Contact	< -60 dB	> 60 dB



FTTH Fiber Pigtails

The fiber pigtail has a primary coating (900µ) in the colour of the respective category (see table). The colour of the primary coating is equal to the colour of the secondary coating. A numeric connector coding 1 .. 12 simplifies the allocation of the ports.

The pigtails can be ordered separately.

Because the standard batch size for ordering pigtails is 12, in a polybag are 12 pigtails. Each connector is packed separately for an easy remove of each pigtail. Every PU contains an individual measuring protocol.

FTTH Fiber Pigtails, LC

Art.-No.	Category	Colour	Connector
FTTH-PIGTAIL-LCA1	G657A2 acc. to ITU-T G.657	yellow	LC APC green
FTTH-PIGTAIL-LC1	G657A2 acc. to ITU-T G.657	yellow	LC blue
FTTH-PIGTAIL-LCA12	G657A2 acc. to ITU-T G.657	12-colours	LC APC green
FTTH-PIGTAIL-LC12	G657A2 acc. to ITU-T G.657	12-colours	LC blue

FTTH Fiber Pigtails, SC

Art.-No.	Category	Colour	Connector
FTTH-PIGTAIL-SCA1	G657A2 acc. to ITU-T G.657	yellow	SC APC green
FTTH-PIGTAIL-SC1	G657A2 acc. to ITU-T G.657	yellow	SC blue
FTTH-PIGTAIL-SCA12	G657A2 acc. to ITU-T G.657	12-colours	SC APC green
FTTH-PIGTAIL-SC12	G657A2 acc. to ITU-T G.657	12-colours	SC blue

Quality classes acc. to IEC 61753-1

Singlemode attenuation grade at 1310nm and 1550nm

Attenuation grade	Max. Attenuation (≥97% of samples) [dB]	Mean Attenuation [dB]	Comments
A	≤ 0,15	≤ 0,08	
B	≤ 0,25	≤ 0,12	
C	≤ 0,50	≤ 0,25	
D	≤ 1,00	≤ 0,50	Used for some multi-fiber connectors

Singlemode return loss grades at 1310nm and 1550nm

Return loss grade	Return loss (mated) [dB]	Comments
1	≥ 60	Unmated ≥ 55dB
2	≥ 45	
3	≥ 35	
4	≥ 25	

Quality classes acc. to IEC 61753-222-2

Multimode attenuation grade at 850nm and 1300nm

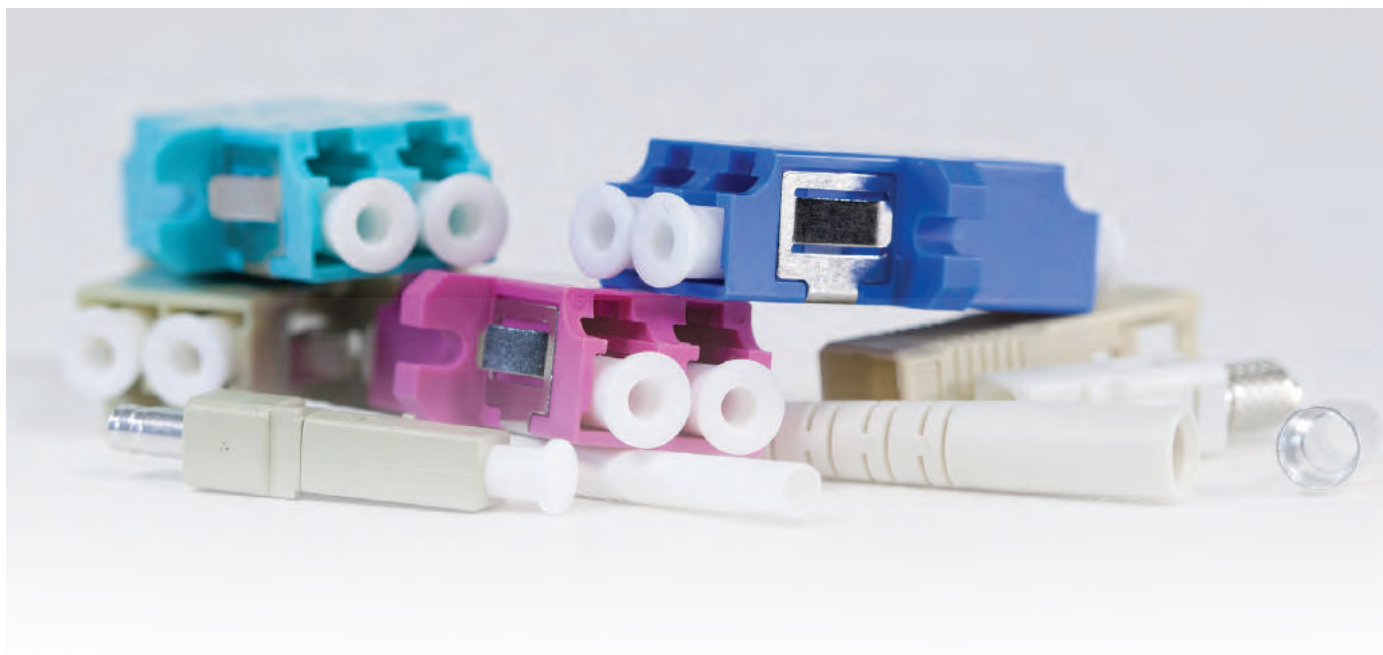
Attenuation grade	Max. Attenuation (≥97% of samples) [dB]	Mean Attenuation [dB]	Comments
A	≤ 0,75	≤ 0,25	≤ 0,30 dB against reference
B	≤ 1,00	≤ 0,35	
C	≤ 1,50	≤ 0,50	

Multimode return loss grades at 850nm and 1300nm

Return loss grade	Return loss (mated) [dB]	Comments
1	≥ 20	



CONNECTORS & FIBER ADAPTERS //



Fiber connector and accessories	P. 91
Fiber adapter	P. 92 - 94
Field installable connector	P. 95

// YOU MAY ALSO BE INTERESTED IN:

Fiber Pigtails	P. 88 - 89
Jumper	P. 77- 84
Splice Boxes	P. 42- 47
FTTx Boxes	P. 23 - 24
Fiber Optic Cable Pre-Assembled	P. 70
Cleaning Tools	P. 96



DELIVERY WITH HEAT SHRINK TUBE ONLY IN 2 MM VARIANT

LC Connector

PU:..... 100, Price/ pcs.

Art.-No.	Suitable for type of fiber	APC-version	Colour	Cable Ø
53232.7	Singlemode	Yes	green	2.0 mm
53232.6	Singlemode	No	blue	2.0 mm
53233.8	Multimode	No	beige	2.0 mm
53233.9	Multimode	No	beige	3.0 mm
53232.5	Singlemode	No	blue	3.0 mm

Accessories

Art.-No.	Description
53234.6	Universal clip for LC Duplex transparent



SC Connector

PU:..... 100, Price/ pcs.

Art.-No.	Suitable for type of fiber	APC-version	Grommet	Colour	Cable Ø
53214.1	Singlemode	Yes		green	2.0 mm
53214.2	Singlemode	Yes		green	2.8 mm
53206.11	Multimode	No	black	beige	3.0 mm
53206.12	Multimode	No	red	beige	3.0 mm

Accessories

Art.-No.	Description
53205.31	Universal Clip blue for SC-Duplex
53205.30	Universal Clip beige for SC-Duplex



FC Connector Set with plug, ferrule and boot

PU:..... 100, Price/ pcs.

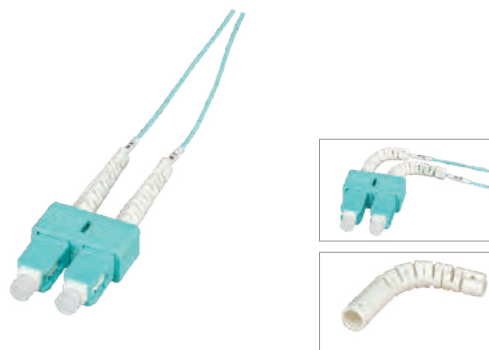
Art.-No.	Suitable for type of fiber	APC-version	Colour	Cable Ø
53227.5	Singlemode	yes	green	3.0 mm
53227.3	Singlemode	No	black	3.0 mm
53227.4	Singlemode	No	red	3.0 mm
53216.3	Multimode	No	black	3.0 mm



ST Connectors

PU:..... 100, Price/ pcs.

Art.-No.	Suitable for type of fiber	APC-version	Colour	Cable Ø
53210.3	Singlemode	No	metal	3.0 mm
53202.3	Multimode	No	metal	3.0 mm



Boot, flexible, white

Flexible boot
Bending 90° to the right side and 90° to the left side possible
Holds the position

PU:..... 100, Price/ pcs.

Art.-No.	Colour	Type of connector	Cable Ø
53210.1	white	LC	2.0 mm
53210.2	white	SC	2.0 mm



Boots for ST and SC Connectors

PU:..... 100, Price/ pcs.

Art.-No.	Colour	Type of connector	Cable Ø
53202.31	black	ST/SC	0.9 mm
53202.32	black	ST	3.0 mm
53202.33	red	ST	3.0 mm



LC Duplex Adapter one piece with Plastic housing

Type of connector connection 1: LC-Duplex
 Type of connector connection 2: LC-Duplex
 Type of fastening:screw/lock
 Design:SC-Simplex
 Accessories:Self-Tapping Screw
 Material sleeve:ceramic
 PU: 12, Price/ pcs.



Art.-No.	Suitable for type of fiber	Colour	Type
53343.31	Singlemode	green	LC /APC
53350.31	Singlemode	blue	LC/PC
53334.10M5	Multimode	lime green	LC/PC
53334.1	Multimode	erica-violet	LC/PC
53357.31	Multimode	aqua	LC/PC
53348.32	Multimode	beige	LC/PC



LC quad Adapter one piece with Plastic housing

Type of connector connection 1: LC-quad
 Type of connector connection 2: LC-quad
 Type of fastening:screw/lock
 Design:SC-Duplex
 Accessories:Self-Tapping Screw
 Material sleeve:ceramic
 PU: 12, Price/ pcs.



Art.-No.	Suitable for type of fiber	Colour	Type
53353.31	Singlemode	green	LC/APC
53353.3	Singlemode	blue	LC/PC
53335.1	Multimode	erica-violet	LC/PC
53355.32	Multimode	aqua	LC/PC
53352.3V1	Multimode	beige	LC/PC



LC Duplex Adapter with Metal housing

Type of connector connection 1: LC-Duplex
 Type of connector connection 2: LC-Duplex
 Type of fastening:screw/lock
 Design:SC-Simplex
 Accessories:Metric Screw
 Material sleeve:ceramic
 PU: 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53343.1	Singlemode	metal	LC/PC



LC quad Adapter with Metal housing

Type of connector connection 1: LC-quad
 Type of connector connection 2: LC-quad
 Type of fastening:screw/lock
 Design:SC-duplex
 Accessories:Metric Screw
 Material sleeve:ceramic
 PU: 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53353.1	Singlemode	metal	LC/PC

Adapter Singlemode one piece, with internal Shutter

Suitable for type of fibre: Singlemode
 Material sleeve:ceramic
 Colour: green
 PU: 12, Price/ pcs.



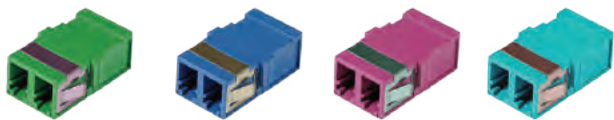
Art.-No.	Type of connector connection 1	Type of connector connection 2	Type of fastening	Design	Accessories	Type of housing
53343.32	LC-Duplex	LC-Duplex	screw/lock	SC-Simplex	Self-Tapping Screw	With flange
53519.2	LC-Duplex	LC-Duplex	lock	SC-Simplex		Flangeless
53353.32	LC-Quad	LC-Quad	screw/lock	SC-Duplex	Self-Tapping Screw	With flange
53316.36	SC-Duplex	SC-Duplex	screw/lock	SC-Duplex	Self-Tapping Screw	With flange

Accessories for all items on this double page

Art.-No.	Description
80550.1-50	Tapping screw ST2,5 50pieces DIN7971, for plastic adapter
80715.1-200	Screw, tinned with nut M2x8, PU 200, for metal adapter
53217.1	Laser protection, LC-Duplex
37501WS.1	Keystone Adapter-Frame, white, for flangeless adapter
37501SW.1	Keystone Adapter-Frame, black, for flangeless adapter

Adapter colours and its classes

Singlemode	Multimode
blue = Singlemode PC green = Singlemode APC	OM5 = lime green OM4 = erica-violet OM3 = aqua OM2 = beige OM1 = beige



LC Duplex Adapter flangeless one piece with Plastic housing

Type of connector connection 1: LC-Duplex
 Type of connector connection 2: LC-Duplex
 Type of fastening:snap-in
 Design:SC-Simplex
 Material sleeve:ceramic
 PU: 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53519.1	Singlemode	green	LC/APC
53515.1	Singlemode	blue	LC/PC
53517.1	Multimode	erica-violet	LC/PC
53516.1	Multimode	aqua	LC/PC



SC Simplex Adapter flangeless one piece with Plastic housing

Type of connector connection 1: SC
 Type of connector connection 2: SC
 Type of fastening:snap-in
 Design:SC-Simplex
 Material sleeve:ceramic
 PU: 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53518.1	Singlemode	green	SC/APC
53511.1	Singlemode	blue	SC/PC
53513.1	Multimode	erica-violet	SC/PC
53512.1	Multimode	aqua	SC/PC
53510.1	Multimode	beige	SC/PC



SC Duplex Adapter one piece with Plastic housing

Type of connector connection 1: SC-duplex
 Type of connector connection 2: SC-duplex
 Type of fastening:screw/lock
 Design:SC-duplex
 Accessories:Self-Tapping Screw
 Material sleeve:ceramic
 PU: 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53316.35	Singlemode	green	SC/APC
53316.3	Singlemode	blue	SC/PC
53333.10M5	Multimode	lime green	SC/PC
53333.1	Multimode	erica-violet	SC/PC
53356.1	Multimode	aqua	SC/PC
53303.32	Multimode	beige	SC/PC



SC Duplex Adapter with Metal housing

Type of connector connection 1: SC-duplex
 Type of connector connection 2: SC-duplex
 Type of fastening:screw/lock
 Design:SC-duplex
 Accessories:Metric Screw
 Material sleeve:ceramic
 PU: 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53319.3	Singlemode	metal	SC/APC
53316.34	Singlemode	metal	SC/PC
53312.34	Multimode	metal	SC/PC



SPLICE-BOXES CAN BE FOUND FROM P. 42

SC Simplex Adapter one piece with Plastic housing

Type of connector connection 1: SC
 Type of connector connection 2: SC
 Type of fastening:screw/lock
 Design:SC-Simplex
 Accessories:Self-Tapping Screw
 Material sleeve:ceramic
 PU: 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53302.32	Singlemode	green	SC/APC
53302.31	Singlemode	blue	SC/PC
53302.33	Multimode	beige	SC/PC



ST / SC Duplex Hybridadapter with Plastic housing

Type of connector connection 1: ST-duplex
 Type of connector connection 2: SC-duplex
 Type of fastening:screw/lock
 Design:SC-duplex
 Accessories:Self-Tapping Screw
 Material sleeve:ceramic
 PU: 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53320.3	Singlemode	blue	PC
53305.31	Multimode	beige	PC



ST / SC Duplex Hybridadapter with Metal housing

Type of connector connection 1:ST-duplex
 Type of connector connection 2:SC-duplex
 Type of fastening:.....screw/lock
 Design:.....SC-duplex
 Accessories:Metric Screw
 Material sleeve:.....ceramic
 PU:..... 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53320.34	Singlemode	metal	PC
53307.34	Multimode	metal	PC



ST Simplex Adapter with Metal Housing

Type of connector connection 1:ST
 Type of connector connection 2:ST
 Type of fastening:.....screw/lock
 Design:.....ST
 Material sleeve:.....ceramic
 PU:..... 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53103.3	Singlemode	metal	ST/PC
53102.32	Multimode	metal	ST/PC



E2000® Simplex Adapter flangeless

Type of connector connection 1:E2000®
 Type of connector connection 2:E2000®
 Type of fastening:.....snap-in
 Design:.....SC-Simplex
 Material sleeve:.....ceramic
 PU:..... 12, Price/ pcs.

Art.-No.	Suitable for type of fibre	Colour	Type
53526.1	Singlemode	green	E2000/APC



E2000® Simplex Adapter

Type of connector connection 1:E2000®
 Type of connector connection 2:E2000®
 Type of fastening:.....screw/lock
 Design:.....SC-Simplex
 Accessories:Metric Screw
 Material sleeve:.....ceramic
 PU:..... 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53532.1V2	Singlemode	green	E2000/APC
53531.1	Singlemode	blue	E2000/PC
53529.1V2	Multimode	beige	E2000/PC



E2000® Duplex compact Adapter

Type of connector connection 1:E2000® compact
 Type of connector connection 2:E2000® compact
 Type of fastening:.....screw/lock
 Accessories:Metric Screw
 Material sleeve:.....ceramic
 PU:..... 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53523.1	Singlemode	green	E2000/APC
53525.1	Multimode	aqua	E2000/PC



MTP® / MPO Adapter, housing black

Type of connector connection 1:MTP/MPO
 Type of connector connection 2:MTP/MPO
 Type of fastening:.....screw/lock
 Design:.....SC-Simplex
 Material sleeve:.....plastic
 PU:..... 12, Price/ pcs.

Art.-No.	Suitable for type of fiber	Colour	Type
53458.1V2	Singlemode and Multimode 50/125	black	PC/ APC
53458.1	Singlemode and Multimode 50/125	black	PC/ APC

Accessory

Art.-No.	Description
39989.4	Ferrule-Cleaner MPO II, push-pull-technology

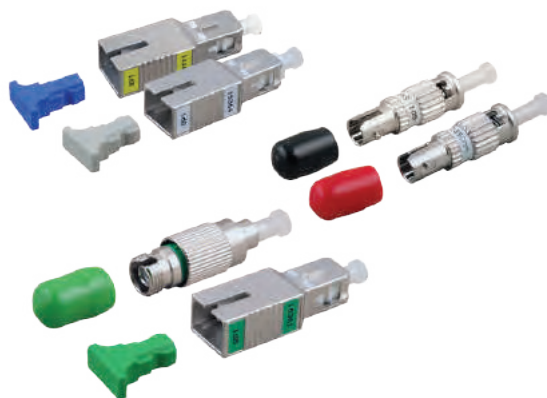
Accessories for all items on this double page

Art.-No.	Description
80550.1-50	Tapping screw ST2,5 50pieces DIN7971, for plastic adapter
80715.1-200	Screw, tinned with nut M2x8,PU 200, for metal adapter
37501WS.1	Keystone Adapter-Frame, white, for flangeless adapter
37501SW.1	Keystone Adapter-Frame, black, for flangeless adapter



Field Installable Connector with Fiber holder

Art.-No.	Type of connector	Suitable for type of fiber	APC-version	Colour	Cable Ø
53196.1	LC	Singlemode	No	blue	0.9 mm
53197.1	LC	Multimode OM3	No	aqua	0.9 mm
53198.1	LC	Multimode OM2	No	black	0.9 mm
53199.1	SC	Singlemode	No	blue	0.9 mm
53200.1	SC	Multimode OM3	No	aqua	0.9 mm
53201.1	SC	Multimode OM2	No	black	0.9 mm
53204.1	SC/APC	Singlemode	True	green	0.9 mm



Attenuator

For increasing the attenuation of fiber optic lines

To prevent overmodulation at short distances

SPC = Return Loss max. 45 dB

APC = Return Loss max. 60 dB

Suitable for CWDM

Attenuation in dB:

1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 15 - 20

Singlemode

Art.-No.	Suitable for type of fiber	Material housing	Type
53360.x	Singlemode	metal	SC/PC
533680.x	Singlemode	plastic	LC/PC
53361.x	Singlemode	metal	SC/APC

Multimode

Art.-No.	Suitable for type of fiber	Material housing	Type
53365.x	Multimode	metal	SC/SPC

FIBER CLEANING & TOOLS //



Fiber Cleaner	P. 97 - 99
Fiber Checker	P. 100
Fiber Tools	P. 101 - 102
Fiber Toolsets	P. 103

// YOU MAY ALSO BE INTERESTED IN:

Measurement devices	P. 109
Jumper	P. 77 - 84
Transceiver	P. 330
FTTx	P. 22



Reel Cleaner(new Version)

For unplugged fiber optic connectors, for cleaning the end faces (not for MTP/MPO or similar). The washed, ultra-clean microfiber cloth captures dirt and other contaminants. The microfiber cloth is tough and lint-free. Eliminates electrostatic charge.

Art.-No.	Description
39962.2	Reel Cleaner for fiber connector with 2,5mm or 1,25mm ferrule
39962.2A	Reel Cleaner refill pack of 6



Cleaner „FCT-C410“ for FO Connectors

Uses both sides of the cloth
 Minimizes static attraction
 Ultra clean micro-fiber cloth captures debris and other contamination
 The cloth is robust, it does not fray or leave any fibrous materials behind
 Easy to remove the cleaning reel without cause any contamination
 More than 450 cleanings per unit
 Dry cleaning
 Suitable connector includes FC, SC simplex, ST, LC, MU simplex, D4, DIN

Art.-No.	Description
39961.1	Cleaner „FCT-C410“ for FO connector
39961.1A	Exchange roll for FCT-C410, single part

Accessory

Art.-No.	Description
08303L1400M3	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC OM3 140m
08303L500M3	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC OM3 50m
08303L1000M3	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC OM3 100m
08303L1000M4	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC OM4 100m
08303L1200M3	Trunk cable U-DQ(ZN)BH 4G 50/125, LC/LC OM3 120m
00319.20	Duplex Jumper LC-LC 50/125µ, OM4, LSZH, erica violet, 2.0mm, 20m
00319.200M5	Duplex Jumper LC-LC 50/125µ, OM5, LSZH, lime green, 2.0mm, 20m
00318.20M5	Duplex Jumper SC-SC 50/125µ, OM5, LSZH, lime green, 3.0mm, 2m
00318.3	Duplex Jumper SC-SC 50/125µ, OM4, LSZH, erica violet, 3.0mm, 3m



Ferrule Cleaner for MPO-Connectors (new version)

Dry cloth cleaning tools specially designed to clean multi fiber connectors Residing in an adapters, faceplate or bulkhead
 Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors
 Cleaning tool for MPO Adapter/ Connector
 Disposable with 525+ cleanings per unit
 Made from antistatic resins
 Cleaning micro fibers are densely stranded and debris free
 Cleaning system rotates about 180° for a full sweep

Art.-No.	Description
39989.4	Ferrule Cleaner MPO II, push-pull-technology



Ferrule Cleaner for Simplex Connectors

IBC dry cloth cleaning tools specially designed to clean single fiber connectors Residing in an adapters, faceplate or bulkhead
 Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors
 39989.2: Cleaning tool for 1.25mm ferrules LC and MU with PC and APC polishes
 Disposable with 525+ cleanings per unit
 Made from antistatic resins
 Cleaning micro fibers are densely stranded and debris free
 Cleaning system rotates about 180° for a full sweep

Art.-No.	Description
39989.2	Ferrule Cleaner for LC, MU for PC & APC 1.25mm ferrule



Ferrule Cleaner for SC,FC and ST Simplex Connector with 2.5 mm ferrule, Standard

IBC dry cloth cleaning tools specially designed to clean single fiber connectors Residing in an adapters, faceplate or bulkhead
 Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors
 39988.2: Cleaning tool for 2.5mm ferrules E2000®, SC, FC and ST with PC and APC polishes
 Disposable with 525+ cleanings per unit
 Made from antistatic resins
 Cleaning micro fibers are densely stranded and debris free
 Cleaning system rotates about 180° for a full sweep

Art.-No.	Description
39988.2	Ferrule Cleaner for SC,FC and ST-adapters for 2.5mm ferrule

Ferrulen Cleaner for E2000®, SC, FC, ST

Dry cloth cleaning tools specially designed to clean single fiber connectors Residing in an adapters, faceplate or bulkhead
 Dust cap of the cleaning tool acts as an adapters for cleaning unmated connectors
 Cleaning tool for 2.5mm ferrules E2000®, SC, FC and ST with PC and APC polishes
 Disposable with 525+ cleanings per unit
 Made from antistatic resins
 Cleaning micro fibers are densely stranded and debris free
 Cleaning system rotates about 180° for a full sweep



Art.-No.	Description
39989.5	Ferrule cleaner for E2000®, SC, FC, ST with 2.5 mm ferrule

Ferrule cleaner for LC-Duplex Connector and Jacks

- Cleans connectors on base of LC-Duplex in PC/APC
- More than 500 cleanings per unit
- Cleaning cloth made from high density woven micro fibers is washed and debris free
- Adapter tip doubles as dust protection



Art.-No.	Description
39989.6	Ferrule-Cleaner for LC-Duplex PC/APC

Miller® Fiber Cleaning Tapes

25 non-linting cleaning cloths
 Alcohol-impregnated, 91% isopropyl and 9% deionized water
 For fiber cleaning after stripping or for cleaning ferrules



Art.-No.	Description
39926.1	Miller® Fiber Cleaning Tapes

Cleaning Sticks

For cleaning optical fiber connectors at difficult to reach places in the adapter
 The special fabric absorbs and retains dirt
 Cleaning without alcohol
 PCU 10 pieces



Art.-No.	Description
39975.1	Stick Cleaner 1.25mm packing unit 10 pcs.
39976.1	Stick Cleaner 2.50mm packing unit 10 pcs.

Alcohol dispenser without content

Suitable for cleaning liquid
 Pumping mechanism economical dose
 Seal of stainless steel
 Without content



Art.-No.	Description
39920.2	Alcohol dispenser without content



Fiber Checker for Single- and Multimode 2.5 mm Ferrules

Compact design
 Suitable to check single-/multimode optical fibers
 Recognise faulty fiber optic components
 Identify and patching of fibers
 Operation distance ca. 3-5 km due to higher light power
 Due to 635 nm wavelength (visible red light) easier fault location
 Suitable 2.5 mm ferrule: DIN, E2000®, FC, SC, ST
 Temperature: -10°C ~ 45°C (operation), -40°C ~ 70°C (storage)
 Weight: 60 g (incl. batteries)
 Dimension: 167 mm x 12 mm

Scope of delivery:
 Fiber checker with dust cap, battery set (2 x AAA), plastic etui and instruction manual



Adapter for Fiber Checker

Art.-No.	Description	Detecting range
39990.1	Fiber Checker 3000 for SM and MM 2.5mm Ferrules	3 km
39990.1	Fiber Checker 5000 for Single- and Multimode 2.5mm Ferrules	5 km

Accessory

Art.-No.	Description
39990.2	Adapter for Fiber Checker adapted from 2,5 mm to 1,25 mm
399910.2	Adapter for POF to 1.5 mm and 2.2 mm



WIDE RANGE OF ACCESSORIES!

Fiber Checker for Single- and Multimode, for 1.25 mm and 2.5 mm Ferrules

The compact visual fault locator is an excellent tool for daily use of field, industrial and laboratory fiber optic applications.
 Suitable for testing single / multimode fiber optic cables, faulty fiber optic components, and identifying and patching fibers
 The 630nm - 670nm wavelength (visible red light) makes it easier to locate faults
 Range: measured up to 6km
 Matching 2.5 mm ferrules: DIN, E2000®, FC, SC, ST
 Matching 1.25mm ferrules: LC
 Delivery incl. dust cover, adapter for LC, SC and FC
 Delivery without batteries



Art.-No.	Description	Detecting range
399900.2	Fiber Checker for SM and MM, for 1.25 mm and 2.5 mm ferrules	6 km

Accessory

Art.-No.	Description
39842.1	Fiber Optic Basic Cleaning & Inspection Kit
39843.2	Professional Fiber Optic Tool Case



Miller® Fiber Stripper FO-103-S „One-Hole“

Miller® Fiber Stripper for stripping the primary coating 250 µm to 125 µm
 Precision-made 127 µm v-notch, no adjustment required
 Length: 137 mm
 Weight: 71 g

Art.-No.	Description
39956.1	Miller® Stripping-tool for stripping 250 µm coating



Miller® Fiber Stripper CFS-2 „Dual-Hole“

Miller® Fiber Stripper with 140 µm hole for stripping the primary coating 250 µm to 125 µm
 Second hole for stripping the 2-3 mm outer jacket
 Ergonomic handles
 Lock to hold tool closed when it is not in use
 Length: 165 mm
 Weight: 119 g

Art.-No.	Description
39922.1	Miller CFS-2 stripping tool Dual-Hole, 140 µm



FURTHER
 SPLICING
 TOOLS ON
 P. 96

Miller® Fiber Stripper FO 103-T-250-J „Tri-Hole“

Miller® Fiber Stripper for stripping
 Primary coating 250 µm to 125 µm
 Secondary coating 900 µm to 250 µm
 2-3 mm outer jacket
 Length: 137 mm
 Weight: 71 g

Art.-No.	Description
39901.1	Miller® Fiber Stripper „Tri-Hole“ FO 103-T-250



Miller® Stripping Tool WS 5

Miller® Fiber Stripper for stripping the coating
 For diameter 0,6 - 0,8 - 1,0 - 1,3 - 1,6 - 2,0 - 2,6 mm
 Lock to hold tool closed when it is not in use
 Automatic return spring for ease of use and speed
 With cutting device
 Length: 159 mm
 Weight: 108 g

Art.-No.	Description
39915.1	Miller stripping tool WS 5 for stripping from 0.6-2.6 mm



Stripping Tool 180µm - 300µm

For stripping the primary coating 250 µm to 125 µm

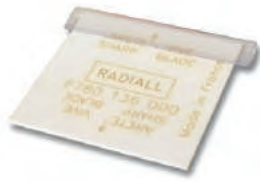
Art.-No.	Description
39923.1	Stripping tool, 180 µm - 300 µm primary coating 250 µ to 125 µ



Stripping Tool 600µm - 1100µm

For stripping the secondary coating 900 µm to 250 µm

Art.-No.	Description
39923.2	Stripping tool, 600 µm - 1100 µm stripping the secondary coatings



Ceramic Fiber Optic Scribe

Ceramic fiber optic scribe
 For removing Fiber overlength at the connector assembly
 Both sides usable
 Scratch fiber with scribe then split cautious
 Dimensions: 50x50mm

Art.-No.	Description
39964.1	Fiber Optic Scribe Ceramic



Cable Stripping Tool for round cable

Precision tool for stripping of the outer jacket of round cables
 Knife is adjustable for longitudinal cut, circumferential and spiral slitting
 „Tri-Action-Strip“
 Adjustable cutting depth
 Length: 138 mm
 Weight: 100 g

Art.-No.	Description
39900.1	Cable Stripping Tool Miller® RCS-114
39900.2	Exchange blade for Miller® RCS-114 (39900.1)



Kevlar®-Cutting tool KS-1

Hardened blades made of carbon-molybdenum-vanadium steel
 Universal tool for cutting of Kevlar® or aramid yarn
 High-quality nylon case
 Length: 140 mm
 Weight: 79 g

Art.-No.	Description
39903.1	Kevlar®-Cutting tool KS-1, 140 mm



Miller® Kevlar Cutter FOKC

Faster, more powerful cut with hardened blades and opening spring
 Serrated blades for clean, smooth cut
 Lightweight and compact, in a tried and tested quality
 Ergonomically shaped handles with non-slip plastic covering
 Length: 146 mm
 Weight: 72 g

Art.-No.	Description
39902.1	Miller® Kevlar Cutter FOKC



Insertion - Extraction Tool, IET Zange

With the RI-IET tool, fiber optic connectors can be easily removed and plugged from a fully connect splice box.
 The tool is usable for LC and SC Simplex connectors as well as for Duplex connectors. It can also be used for MU and MTRJ connectors

Dimension: 223 mm x 70 mm
 Weight: 100g

Art.-No.	Description
39953.1	Insertion - Extraction Tool, IET Zange, LC and SC



Epoxy Resin, light 353

2-component adhesive for connector assembly
 double pack with separation guarantees correct mixing proportion
 Colour change to red after fully hardening
 Weight: 4 gram
 For about 100 connectors
 Process time: max. 4 hours
 Hardening time at 80°C: 15 min
 Viscosity: 2000cps (typ)

Art.-No.	Description
53930.1	Epoxy Resin, light 353 4g, 2-component adhesiv



Fiber Optic Basic Cleaning & Inspection Kit

Art.-No.	Description
39842.1	Fiber Optic Basic Cleaning & Inspection Kit

Accessory

Art.-No.	Description
39988.2	Ferrule Cleaner for SC,FC and ST-adapters for 2.5mm ferrule
39989.2	Ferrule Cleaner for LC, MU for PC & APC 1.25mm ferrule

Basic Cleaning Kit consists of:
 1x Bulb Blower (OD:42mm)
 1x 2,5mm Fiber Optic Ferrule Cleaner
 1x 1,25mm Fiber Optic Ferrule Cleaner
 1x Fiber Optic Cleaning Cassette
 1x Package of Lint free wiper
 1x Fiber Optic Microscope for PC and APC 2.5mm connector
 Magnification microscope: 200x



Professional Fiber Optic Tool Case

This solid tool case made of aluminium contains everything that is necessary for the daily work with optical fibers. Equal if cleaning, stripping or testing - a suitable tool is provided in professional quality.

Scope of delivery / Contents:

- 1 x Aluminium case for fiber optic tools, (W x H x D) approx. 345 x 100 x 260 mm (Art.-No. 39840.1)
- 1 x Fiber Checker Single- and Multimode for 1.25mm and 2.5 mm ferrules (Art.-No. 399900.2)
- 1 x QUICKLOADER Mini 6 in 1 multi-bit screwdriver (Art.-No. 39935.4)
- 1 x Chrome-plated side cutter Knipex 7005 180 (Art.-No. 39982.2)
- 1 x Pliers Knipex 3815 200 (Art.-No. 39984.1)
- 1 x Stripping tool Miller® RCS-114 for round cable 4.5 - 29 mm longitudinal-cross-spiral cut (Art.-No. 39900.1)
- 1 x Kevlar® cutter KS-1 140 mm (Art.-No. 39903.1)
- 1 x loose tube tool blue 3.2 - 6.3 mm (Art.-No. 39958.1)
- 1 x Stripping tool 180 µm - 300 µm, for stripping the primary coating (Art. No. 39923.1)
- 1 x Miller® Fiber Stripper FO 103-T-250-J „Tri-Hole“ (Art.-No. 39901.1)
- 1 x Alcohol dispenser - container PE with swab humidifier, without contents (Art.-No. 39920.2)
- 1 x Cleaner „FCT-C410“ for fiber optic connectors (Art.-No. 39961.1)
- 1 x Ferrule cleaner for ST, SC and FC for PC&APC 2.5 mm ferrules (Art.-No. 39988.2)
- 1 x Ferrule cleaner for LC and MU for PC&APC 1.25 mm ferrules (Art.-No. 39989.2)
- 10 x Stick Cleaner for 2.50 mm sleeves (Art.-No. 39976.1)
- 10 x Stick Cleaner for 1.25 mm sleeves (Art.-No. 39975.1)
- 25 x Miller® fiber cleaning tapes, alcohol-soaked (Art.-No. 39926.1)



Art.-No.	Description
39843.2	Professional Fiber Optic Tool Case

Accessory

Art.-No.	Description
39988.2	Ferrule Cleaner for SC,FC and ST-adapters for 2.5mm ferrule
39989.2	Ferrule Cleaner for LC, MU for PC & APC 1.25mm ferrule

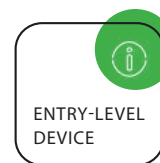
SPLICING & MEASURING EQUIPMENT //



Splice Devices	P. 105 - 108
Accessories for Splice Devices	P. 108
Measurement Units	P. 109

// YOU MAY ALSO BE INTERESTED IN:

Fiber Pigtaills	P. 88 - 89
Fiber Optic Installation Cable	P. 62
Cleaning Tools	P. 96
Service / Measurement	P. 86 - 87
Fiber Optic Cable Pre-Assembled	P. 70
FTTx	P. 22



2-Axis Fusionsplicer Inno A3

Scope of delivery:

- Fusion Splicer
- Cleaver
- Fiber Holder
- SOC Fiber Holder
- SOC Heater Cover
- AC Adapter
- Cooling Tray
- Electrode
- Battery Pack
- Power Cable
- USB Cable
- Work Station
- Shoulder Strap
- Workstation

Optional Accessories:

- Alcohol Pump
- Stripper

Suitable for ribbon cable: ...False
 Extra monitor connection: .False
 Weight: 1.2 KG
 Compatible Fiber/Cable:.....0,25 - 3,0;Indoor cable
 Fiber Count:Single
 Fiber Holder:.....Replaceable
 Splice Mode:.....6
 Typical Splice Loss:.....MM: 0,01;SM:0,03;DS: 0,05;NZDS: 0,05;G.657: 0,03 dB
 Typical Return Loss:>60
 Splicing Time:.....7 sec
 Attenuation Splicing:No
 Heating Time (oven): 15 sec
 Results Storage:..... 10000
 Tension Test: 1.96 - 2.25 N
 Operating Conditions:Altitude: 0-5000m;Humidity: 0 - 95%;Temperature: -10 - 50°C;Max. Wind: 15m/s

Art.-No.	Description	No. of Splice/Heating with Battery	Equipment
INNO-A3	2-Axis Fusionsplicer Inno A3 with clad alignment	150x Splice + Heat	Shrink oven
Art.-No.	Accessory		
VIEW-CLEAVER	Cleaver for Inno View 7, View 8+		
VIEW-V11	High precision cleaver with universal holder and replaceable holder		
VIEW-CRIMPTOOL	Crimptool for crimp splice protection		
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)		
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)		
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100		
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100		



3-Axis Fusion Splicer Inno View5Pro

DESCRIPTION

View 5 Pro, a core-alignment splicer with the world's highest fiber image magnification rate, is the most dependable fusion splicer in the market. View 5 Pro's 5 inch high-resolution color LCD touch screen with user-friendly intuitive GUI (Graphic User Interface) offers large and clear fiber images to users. By double-tapping the screen, users can zoom In & Out the image to the world's highest magnification of 520x. Also View 5 Pro's compatibility with SOC (Splice-On-Connectors) will bring satisfactory experiences to users in FTTx field with maximum work efficiency through the fast heating time of 13s. Moreover, the 3 LED lights provide bright splice condition to the users working under dark environments. View 5 Pro is the new industry standard of core-alignment splicer in the telecommunications industry. All of these new features combined with longer lasting battery and newly introduced touch screen mean that the View 5 Pro will work faster, more precisely and for longer than ever before.

View Pro Monitoring Web Service

Facilitates the management of multiple devices and work progress by tracking device in real time and generating report based on server data. Job order function allows manager to give work direction to operators which has enrolled device.

Scope of delivery:

- Fusion Splicer 1x
- Cleaver 1x
- Fiber Holer 1set
- SOC Holder 1x
- SOC Heat Cover 1x
- AC Adapter 1x
- Cooling Tray 1x
- Electrode 1set
- Battery 1x
- Power Cable 1x
- USB Cable 1x
- Carrying Case 1x
- Shoulder Trap 1x
- Quick Guide 1x
- Workstation 1x

Optional Accessories:

- Alcohol pump
- Stripper
- Cigarette Lighter Cable
- Electrode Grinder

- Weight:2.21 KG
- Compatible Fiber/Cable: 0,25 - 3,0;Indoor cable
- Fiber Count:Single
- Fiber Holder:.....Replaceable
- Splice Mode:.....128
- Typical Splice Loss:.....SM:0,02;MM: 0,01;DS: 0,04;NZDS: 0,04;G.657: 0,02 dB
- Typical Return Loss:>60
- Splicing Time:.....7 sec
- Attenuation Splicing:0.1 - 20 dB
- Heating Time (oven):.....13 sec
- Results Storage:.....10000
- Tension Test:.....1.96 - 2.25 N
- Operating Conditions:Altitude: 0-5000m;Humidity: 0 - 95%;Temperature: -10 - 50°C;Max. Wind: 15m/s
- Storage Conditions:.....Humidity: 0 - 95%;Temperatur: -40 - 80°C
- Size (WxHxD):.....149 x 177 x 151



Art.-No.	Description	No. of Splice/Heating with Battery	Equipment
VIEW5PRO	3-Axis Fusion Splicer Inno View5Pro with core alignment	200x Splice + Heat	Shrink oven
Art.-No.	Description		
VIEW-CRIMPTOOL	Crimptool for crimp splice protection		
VIEW-V11	High precision cleaver with universal holder and replaceable holder		
VIEW-WORKBENCH	Workbench for ViewPro series with holder for crimp tool, cleaver + splice cassette		
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)		
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)		
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100		
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100		



3-Axis Fusionsplicer Inno View8Pro

DESCRIPTION

View 8 Pro, a core-alignment splicer with the world's highest specification, offers maximum work efficiency through the quick mode of 6s splice time and 9s heating time. In addition, INNO mobile application improves the operator to manage splicer and splice data.

To make a precise aligning, 4 motors and clad alignment adopted in this fusion splicer can rival the core-alignment. Global first windshield, inbuilt dual-angle LED lightening and high definition 5.0 - inch LCD screen are available. You can double touch the screen to zoom in the image, obtaining clearer fiber image and splicing results displayed. Besides, this fusion splicer inherits many merits functionally from INNO's fusion splicer family such as versatile holders and fast heating.

All of these new features combined with longer lasting battery and newly introduced touch screen mean that the View 8 Pro will work faster, more precisely and for longer than ever before.

View Pro Monitoring Web Service

Facilitates the management of multiple devices and work progress by tracking device in real time and generating report based on server data. Job order function allows manager to give work direction to operators which has enrolled device.

Scope of delivery:

- Splicer 1x
- Cleaver 1x
- Fiber Holder 1set
- SOC Holder 1x
- SOC Heater Cover 1x
- AC Adapter 1x
- Cooling Tray 1x
- Electrode 1set
- Battery 1x
- Power Cable 1x
- USB Cable 1x
- Carrying Case 1x
- Shoulder Strap 1x
- Quick Guide 1x
- Workstation 1x

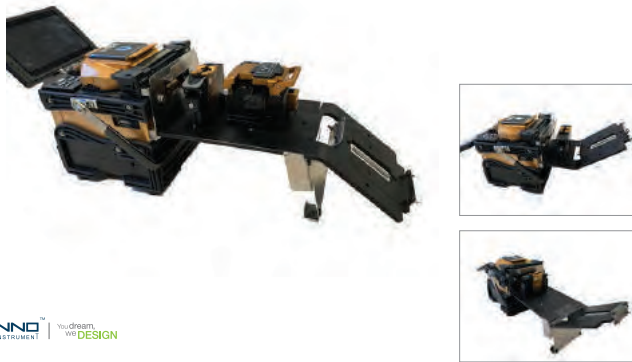
Optional Accessories:

- Alcohol pump
- Stripper
- Cigarette Lighter Cable
- Electrode Grinder

- Weight: 2.78 kg
- Compatible Fiber/Cable: 0,25 - 3,0; indoor cable
- Fiber Count: Single
- Fiber Holder: Replaceable
- Splice Mode: 128
- Typical Splice Loss: $SM:0,02;MM: 0,01;DS: 0,04;NZDS: 0,04;G.657: 0,02\text{ dB}$
- Typical Return Loss: >60
- Splicing Time: 6 sec
- Attenuation Splicing: 0.1 - 20 dB
- Heating Time (oven): 9 sec
- Results Storage: 10000
- Tension Test: 1.96 - 2.25 N
- Operating Conditions: Altitude: 0-5000m; Humidity: 0 - 95%; Temperature: -10 - 50°C; Max. Wind: 15m/s
- Storage Conditions: Humidity: 0 - 95%; Temperature: -40 - 80°C
- Size (WxHxD): 143 x 158 x 162



Art.-No.	Description	No. of Splice/Heating with Battery	Equipment
VIEW8PRO	3-Axis Fusionsplicer Inno View8Pro with core alignment	355x Splice+Heat	Shrink oven
Art.-No.	Description		
VIEW-CRIMPTOOL	Crimptool for crimp splice protection		
VIEW-V11	High precision cleaver with universal holder and replaceable holder		
VIEW-WORKBENCH	Workbench for ViewPro series with holder for crimptool, cleaver + splice cassette		
53100.32	Crimp arc splice protection, Telekom approved, (min. PPU 30/ package 150pcs)		
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)		
53100.9-100	Splice Heat Shrink, transparent, length: 60mm, PU 100		
53100.91-100	Splice Heat Shrink, transparent, length: 45mm, PU 100		



Workbench for ViewPro series with holder for crimp tool, cleaver + splice cassette

Workbench for ViewPro series with holder for crimp tool, cleaver + splice cassette

Art.-No.	Description
VIEW-WORKBENCH	Workbench for ViewPro series with holder for crimp tool, cleaver + splice cassette



High precision cleaver with universal holder and replaceable holder

High precision cleaver with universal holder and replaceable holder

Art.-No.	Description
VIEW-V11	High precision cleaver with universal holder and replaceable holder

Accessory

Art.-No.	Description
VIEW-WORKBENCH	Workbench for ViewPro series with holder for crimp tool, cleaver + splice cassette



Loose tube tool blue

Loose tube tool for stripping the loose tube in fiber horizontal cables
Minimises danger to damage the fibers during stripping off the tube

Art.-No.	Description
39958.1	Loose tube tool blue, 3,2 - 6,3mm



Crimptool for crimp splice protection

Crimping tool with stand for crimp splice protectors of common manufacturers

Art.-No.	Description
VIEW-CRIMPTOOL	Crimptool for crimp splice protection

Accessory

Art.-No.	Description
VIEW-WORKBENCH	Workbench for ViewPro series with holder for crimp tool, cleaver + splice cassette
53100.32-150	Crimp arc splice protection, Telekom approved, 1 carton = 150 peaces (PPU)



FURTHER TOOLS CAN BE FOUND FROM P. 101

INFRALAN® Stripper

Fiber stripper for stripping of the main jacket and primary coating 250 µm to 125 µm
Precision-made 127 µm v-notch, no adjustment required

Art.-No.	Description
HS15-ABSETZANGE	INFRALAN® Stripper



Crimptool for crimp splice protection

Crimping tool for all common crimp splice protection types
Special feature: **Internal development with a design protection and protection of utility models**
Compact and light design
Robust tool
Material: black anodized steel
Skid proof through rubberised pedestal
Defined insertion of fibers through large lateral support surfaces possible
Dimensions: 100x40x45 mm
Weight: 200 g

Art.-No.	Description
HS15-CRIMPTOOL	Crimptool for crimp splice protection

Accessory

Art.-No.	Description
53100.3	Crimp splice protector for arc splices, (min. PPU 15/ package 150pcs)
53100.21	Spliceholder for 12 arc splices

Fiber Optic Power Meter 850/1300/1310/1550nm

Fiber Optic Power Meter for measurement of the Insertion Loss of Fiber-Communication links. The unit is used with the Light Sources HS15-LS1 (850nm/1300nm) and/or HS15-LS2 (1310nm/1550nm). Robust and compact case

- Internal storage for 39 measurements
- Data transfer through with PC is possible
- Communication Connector: USB
- Visual Fault Locator included in the unit
- Detector Type: InGaAs
- Visual Fault Locator: 1mW
- Optical Connector: SC/ PC
- Measurement Range: +8dBm ~ -70dBm
- Measurement Wavelength: 850nm, 1300nm, 1310nm, 1550nm
- Resolution: 0,01dB
- Accuracy: +/- 0,2dB
- Modulation Detection: 270Hz, 1kHz, 2kHz
- Low Battery Warning
- Display Backlight
- Operation Temperature -10°C ~ +60°C
- Operation Humidity < 90% RH
- Storage Temperature -20°C ~ +70°C
- Storage Humidity < 90% RH
- Power Source: 2x AA/LR6 1,5V (not included)
- Dimensions: 170x97x38mm
- Weight: 330g



Art.-No.	Description	Measured value memory	Suitable for	Model	Type of indication	With PC/printer interface	Suitable for network protocol measurement
HS15-MESS	Fiber Optic Power Meter 850/1300/1310/1550nm	Yes	Fiber Optic	IL measurement unit	LCD/monitor	Yes	No

Fiber Optic Light Source for HS15-MESS

- HS15-LS1: Light Source 1310nm and 1550nm
- HS15-LS2: Light Source 850nm and 1300nm
- To use with item HS15-MESS
- Power Stability: +/-0,05db for 1 hour, +/- 0,1dB for 8 hours
- Optic Connector: SC/PC
- Signal Modulation: 270Hz, 1kHz, 2kHz
- Low Battery warning
- Storage Temperature: -20°C ~ +70°C
- Storage Humidity: < 90%RH
- Operating Temperature: -10°C ~ +60°C
- Operating Humidity: < 90%RH
- Power Source: 2x 1,5V AA batteries (not included)
- Dimension: 165x80x35mm
- Weight: 280g



Art.-No.	Description	Measured value memory	Suitable for	Model	Type of indication	With PC/printer interface	Suitable for network protocol measurement
HS15-LS1	Fiber Optic Light Source 1310/1550nm, for HS15-MESS	True	Fiber Optic	Light Source	LCD/monitor	No	No
HS15-LS2	Fiber Optic Light Source 850/1300nm, for HS15-MESS	True	Fiber Optic	Light Source	LCD/monitor	No	No



FiberXpert OTDR 5000 Quad

Designed with the installers and operators of enterprise networks in mind, the FiberXpert OTDR 5000 measures, documents and troubleshoots fiber optic networks. The FiberXpert OTDR 5000 provides very high resolution with one of the shortest dead zones available for testing multimode and single-mode fibers, thus enabling measurement of very short fiber links. Automatic analysis simplify the measurement tasks and let you be the fiber expert.

With a high dynamic range and a small event dead zone the FiberXpert OTDR 5000 is the tool for measuring relative short optical fiber links in company networks and data centers. With an event dead zone of less than 80cm it is possible to detect connectors in a short row and measure them highly accurate. To reduce costs and resources the FiberXpert measures using the maximum resolution in the shortest possible time.

Characteristics:

- OTDR for 850/1300nm multimode or combined for 850/1300nm multimode and 1310/1550nm singlemode
- Standards compliant Tier 2 measurement of fiber optic cabling
- Automatic Pass/Fail analysis of the test results according to the limits specified by TIA/IEC
- Display of the OTDR trace in a graphical format for a length-dependent analysis of all events for reflection and attenuation
- All fiber link events and analysis listed in a table of results
- Automatic macro-bend detection
- Built-in optical loss test set
- Optional fiber inspection probe
- 5 inch colour LCD touch screen
- Hand-free operation due to a special carrying case
- Generation of professional reports with the central eXport evaluation software
- Laser safety class: M1
- Interchangeable optical connectors: FC, SC, DIN, and ST
- Calibrated wavelengths MM: 850 and 1300 nm
- Calibrated wavelengths SM: 1310, 1490, 1550, 1625 and 1650 nm
- Measurement accuracy MM: ± 1 dB (At -15 dBm)
- Measurement accuracy SM: ± 0.5 dB (At -30 dBm)
- Event dead zone MM: 0.8m
- Event dead zone MM: 0.9 m

Scope of delivery:

- Main measurement unit, SC compatible Multimode module, SC compatible Singlemode module
- Li-Po batteries, power supplies, soft case with shoulder strap,
- hard carry case, calibration certificate

Weight: 400 g
 Dimensions: 128 x 134 x 40 mm

Art.-No.	Description	Measured value memory	Suitable for	Model	Type of indication	With PC/printer interface
FX5000-QU	FiberXpert OTDR 5000 Quad, Multimode/Singlemode	True	Fiber Optic	OTDR Quad	LCD/monitor	True

Accessories

Art.-No.	Description
FX_AD_DIN	Connection adapter for DIN Connector for FX5000
FX_AD_FC	Connection adapter for FC Connector for FX5000
FX_AD_SC	Connection adapter for SC Connector for FX5000
FX_AD_ST	Connection adapter for ST Connector for FX5000

Fiber Optic Inspection Microscope for 2,5mm and 1,25mm ferrules

Fiber Optic Microscope for inspection of connector endfaces
 E.g. SC, LC, ST, E2000®, FC, DIN or FSMA connector
 Adapter for 2,5mm ferrules and 1,25mm ferrules included
 Eye-Safe video viewing, Ergonomic design
 Fast and easy focus due to one hand operation
 Large 3,5" display
 Operation by rechargeable battery pack
 Inspection of different kind of cable with mounted connectors possible
 Change inspection tips in seconds



Specifications Camera:

Field of view: ~ 0,425mm x 0,320mm
 Optical Resolution: 0,5µm
 Optical Magnification: 400 times
 Focus: Manual adjustment
 Light Source: Blue LED
 Dimensions: 35x175mm (without cap)
 Weight 200g

Specifications Display:

Display: 3,5" LCD-TFT, 960 x 240 pixel
 Adjustable brightness and contrast
 Dimensions: 105x90x45mm (folded)
 Weight: 255g (without battery)
 Power Supply: 9,6V battery pack or AC power supply
 Battery Life: 4 hours



Art.-No.	Description	Magnification factor
CI-1100	Fiber Optic Inspection Microscope for 2,5mm and 1,25mm ferrules	400

Accessory

Art.-No.	Description
HS15-MESS	Fiber Optic Power Meter 850/1300/1310/1550nm

Digital Fiber Inspection Kit

Fiber microscope - Inspection and evaluation of connector end-faces
 Digital fiber microscope to inspect connector end-faces

Before testing fiber-optic links and every time fiber optic connectors are mated, connector end-faces should be inspected and evaluated to avoid contamination that can cause degradation of network performance and destructive damage in the contact zone. The new fiber microscope provides for a quick and easy inspection of connector end-faces and an automated analysis compliant with IEC 61300-3-35.

The microscope is easily connected via USB with WireXpert or FiberXpert and the evaluation of connector end-faces can be added to the test reports.

Inspection and evaluation of connector end-face at the touch of a button
 Automated analysis compliant with IEC 61300-3-35
 Ease of use and quick analysis
 Compatible with WireXpert and FiberXpert
 Adapters for the most common fiber-optic connectors are included in the delivery

Scope of delivery:
 Digital USB microscope
 carrying case
 FC/LC/SC/U12M/U25M tips



CLEANING MATERIAL YOU WILL FIND ON P. 96

Art.-No.	Description
WX_FX_INSP_KIT	Digital Fiber inspection kit

Accessory

Art.-No.	Description
FX5000-QU	FiberXpert OTDR 5000 Quad, Multimode/Singlemode
WX4500-FA-V2	Copper- and Fiber Optic-Cable Certifier up to 2500MHz

Copper- and FO-Cable Certifier up to 2500MHz

For standard conformance measurement of structured cabling in buildings
 Professional documentation generator
 Complete glass fiber certification for MM and SM with optional fiber optic measuring adapters
 Supports two-wavelength end-to-end measurements for MM and SM glass fibers

General Specifications

Interfaces: Probe Interface, RJ-45 Ethernet, USB host and device, talkset, power jack

Display: 6" industrial LCD, touch sensitive area on both units

Enclosure: Ruggedized plastic with rubber over-mold, withstands 1.5m drop test on hard surface

Remote unit abilities: View test results, save tests, start autotest

Input over-voltage protection: Protected against Telco voltages

Battery: Removable and rechargeable Li-Ion

Battery Capacity: >8 hours continuous operation

Internal Storage Capacity: 2000 copper test results with full plot information

External Storage: USB Flash Drive 1 GB in delivery (21 GB max.)

Calibration period: 1 year

Dimensions: 232 X 126 X 87 mm3 (9.1 X 5.0 X 3.4 inch3) /unit

Weight: Approx. 1.4 kg (3.0 lb) / unit

Environmental

Operating Temperature: 0 to 40 °C

Storage Temperature: -20 to 60 °C

Relative humidity: 10% to 80%

Scope of delivery:

WireXpert Handheld units: 2

Li-Ion Batteries: 2

Stylus with Cords: 2

Display Protection Covers: 2

CAT 6A Permanent Link Interface Adapters: 2

CAT 6A Permanent Link Test Cords: 2

CAT 6A Channel Adapters: 2

USB Thumb Drive incl. Manual and Software: 1

Talk Head Sets: 2

AC Power Adapters: 2

Country Specific Power Cord: 2

Calibration Certificate: 1

Carrying Case: 1

Quick Reference Guide: 1



Copper testing

Certification Testing: TIA 568-C.2 CAT 5e, 6, 6A, draft CAT 8
 ISO/IEC 11801, EN 50173 Class D,E,EA,F,FA

draft Class I and Class II Permanent link and channel
 CAT 5e, 6, 6A, 7, 7A and patch-cord

Autotest time - CAT6A: 9 sec

Autotest time - Class FA: 15 sec

Max cable length for dual ended Autotest: 500m

Insertion Cycles: Channel: 10000 typical

Permanent link: 5000 typical

Advanced Diagnostics: Time-domain fault Locator for RL and NEXT

Measurement Accuracy: Exceeds TIA 1152 Level IIIe, IEC 61935 level IV

Measurement Frequency Range: 1- 2500 MHz

Fiber Testing - SM

Wavelengths: 1310nm, 1550nm

Autotest Time: 6 seconds for dual ended test

Connector Type: SC, LC (optional adapter needed)

Fiber Testing - MM

Wavelengths: 850nm, 1300nm

Autotest Time: 6 seconds for dual ended test

Connector Type: SC

Art.-No.	Description
WX4500-FA-V2	Copper- and Fiber Optic-Cable Certifier up to 2500MHz

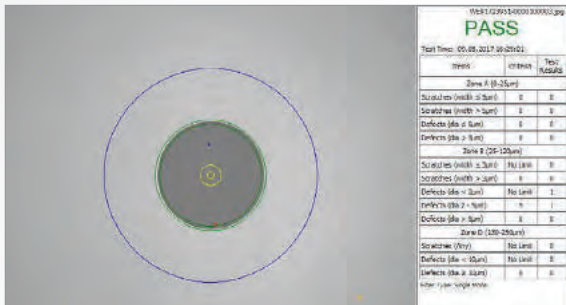
Fiber Optic Module for WX4500

Art.-No.	Description
WX_AD_SM2	WX4500 Singlemode-F0- measurement modul(1310nm and 1550nm)
WX_AD_EF_MM2	Multimode-Fiber-Modul, Encircled Flux (1 pair) 850nm and 1300nm

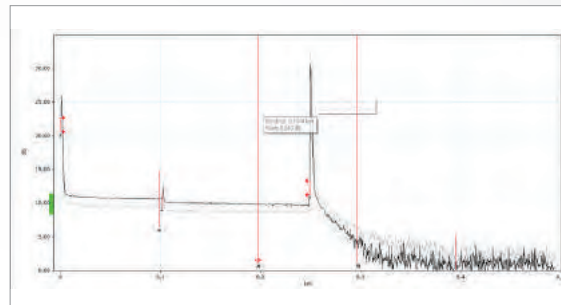




OTDR-MEASUREMENT MULTIMODE/ SINGLEMODE PERFORMING OTDR MEASUREMENTS AT INSTALLED FIBER OPTIC CONNECTIONS IN THE LAN



Connector end face inspection



OTDR-Measurement

Prerequisite without further mention is the previous microscopy of the connector end surfaces according to the specification of IEC 14763-3, which must also be documented. The OTDR measuring device must have an automatic evaluation function (e.g. LSA method) to avoid or detect errors due to manual setting of cursors. Measurements in the wavelength range from 850 nm to 1550 nm with pre- and post-launch fiber (minimum length according to IEC 14763-3) to estimate the detachable fiber optic connections of the DUT. Alternatively, measurements can be performed with a launch fiber (minimum length according to IEC 14763-3) if a bi-directional measurement is performed. The measurement setup is to be shown by means of a principle sketch, from which the length, the connectors as well as the pre-launch and post-launch fibers can be identified. There are no other connecting cables between the pre-launch and post-launch fibers allowed so that the quality of the connector transitions can be assessed. The displayed information must be set, that the DUT with the pre-launch and post-launch fibers can be seen on the screen/printout and the reflections of the detachable FO connections are not cut off.

TRANSFER OF MEASUREMENT DATA:

- The OTDR protocols are to be handed over on a data storage medium in the original format, as a graph and with an event table including the evaluation software of the of the measuring device used.

THE FOLLOWING DATA MUST BE INCLUDED IN THE REPRESENTATION:

- Cable manufacturer/ -type
- Fiber type
- Fiber count
- Refractive index
- Measurement wavelength/ measurement wavelengths
- Used measuring device with serial number and calibration date
- Pulse width
- Pulse duration
- Description of the measurement object (e.g. start and end point of the FO link including all splices/connectors)
- Installer/ Company
- Operator

The data must be accompanied by the site plan of the object, with which all measured distances can be assigned.

*LIMIT VALUES TO BE COMPLIED WITH:

- Kilometric attenuation: see fiber parameters in the fiber data sheets
- Splice attenuation: ≤ 0.1 dB
- Splice attenuation and detachable plug-in connection: ≤ 0.85 dB
- Attenuation of a detachable plug-in connection: ≤ 0.75 dB
- Return loss: ≥ 45 dB

* (Limit values may deviate in the respective measurement object due to specifications of the building owner or due to regulations of the country or federal state).

// HIGH-QUALITY COMPONENTS FOR

COPPER CABLING

**IP 67/68
PLUG-IN SYSTEMS**
// P. 166

TELECOM // P. 170

PATCH CABLE //
P. 130

**RJ45 PLUGS &
ACCESSORIES**
// P. 158

7

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2

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INSTALLATION & FLEXIBLE CABLES

// P. 152

4

TOOLS & MEASURING INSTRUMENTS

// P. 162

6

PATCH PANEL & DATA OUTLETS

// P. 148

3

KEYSTONES, ADAPTERS & ACCESSORIES

// P. 116

1

ICON LEGEND // COPPER CABLING



Transmission speed



Category



Transmission frequency



Certification



Conductor material



Jacket material



Origin



Protection class

KEYSTONES, ADAPTERS & ACCESSORIES //

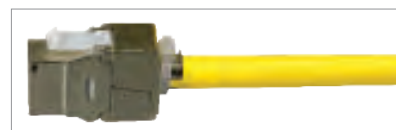


Keystones	P. 117 - 121
Installation adapters	P. 122
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Keystone Frame Sets	P. 124 - 125
Keystone Housings	P. 126 - 127
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Connection modules	P. 129

// YOU MIGHT ALSO BE INTERESTED IN:

Installation Cable	P. 154
Patch Cable	P. 130
Tools	P. 162
19" Network Cabinets	P. 184

Article-No.	E-20093	E-20092	E-20091	E-20070	E-20095	E-200100	E-20072	E-20080	11201166	11201155
Category	6A (IEC)	Cat.8 Class 1	6A (IEC)	6A (IEC)	6A (IEC)	6A (IEC)	6	6	6	5E
Connection type	IDC	IDC	IDC	IDC	IDC	IDC	IDC	IDC	LSA	LSA
Shielded	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
AWG-range for stranded wire	-	-	-	26/7 - 24/7	-	26/7 - 22/7	-	-	-	-
AWG-range for solid wire	26/1 - 22/1	24/1 - 22/1	24/1 - 22/1	26/1 - 22/1	24/1 - 22/1	26/1 - 22/1	24/1 - 22/1	24/1 - 22/1	26/1 - 22/1	26/1 - 22/1
Special tool necessary	No	No	No	No	No	No	No	No	Yes	Yes
Housing material	Zinc die cast	Zinc die cast	Zinc die cast	Zinc die cast	Zinc die cast	Zinc die cast	Zinc die cast	Plastic	Plastic	Plastic
Dust cover	integrated	Captive/**	Captive/**	Yes	Captive/**	No	Yes	Yes	Yes	Yes
For UAE suitable/Slimline	No	No	No	No	Yes	Yes	No	No	No	No
Max. cable diameter	8.5mm	8.5mm	8.5mm	8.0mm	8.5mm	8.5mm	8.0mm	8.5mm	8.5mm	8.5mm
Separate earthing flag	No	Yes	Yes	No	Yes	No	No	No	No	No
Sliding shield contact for different cable diameters	No	Yes	Yes	Yes	Yes	No	Yes	No	No	No
360° shield contact	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Shielding and strain relief separated	No	Yes	Yes	No	Yes	No	No	No	No	No
Installation dimension	14.8 x 19.25-20 mm	14.8 x 19.25-20 mm	14.8 x 19.25-20 mm	14.8 x 19.25-20 mm	14.8 x 19.25-20 mm	14.8 x 19.5 mm	14.8 x 19.25-20 mm	14.8 x 19.25-20 mm	14.8 x 19.5 mm	14.8 x 19.5 mm
Length	30.5 mm	40.95 mm	40.00 mm	37.50 mm	40.66 mm	37.66 mm	37.50 mm	37.50 mm	34.4 mm	34.4 mm
Mating cycles	≥ 750	≥ 750	≥ 750	≥ 750	≥ 750	≥ 750	≥ 750	≥ 750	≥ 750	≥ 750
Temperature range	-10 - 60 °C	-40 - 66 °C	-40 - 66 °C	-40 - 66 °C	-40 - 66 °C	-10 - 60 °C	-40 - 66 °C	-40 - 66 °C	-40 - 66 °C	-40 - 66 °C
Test voltage Dielektrikum	750V AC 60Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	700V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz	1000 V AC 60 Hz
Current rating	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A	1,5A
Insulation withstanding	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ	≥ 500MΩ
Contact withstanding	≤ 20mΩ	≤ 20mΩ	≤ 20mΩ	≤ 20mΩ	≤ 20mΩ	≤ 20mΩ	≤ 20mΩ	≤ 20mΩ	≤ 20mΩ	≤ 20mΩ
According to fire protection class UL94	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0
UL certified	No	No	No	No	No	No	No	No	Yes	Yes
POE	PoE, PoE+	PoE, PoE+, 4PPOE	PoE, PoE+, 4PPOE	PoE, PoE+, 4PPOE	PoE, PoE+, 4PPOE	PoE, PoE+	PoE, PoE+, 4PPOE	PoE, PoE+, 4PPOE	PoE, PoE+	PoE, PoE+
Certification	Type Approval IPL GHMT	Channel Class I Force Technology	Type Approval GHMT	Type Approval GHMT	Type Approval PL GHMT	-	-	-	Connecting Hardware ETL Intertek	-
PPU	1	1	1	1	1	1	1	1	12	12



RJ45 Keystone STP, Cat.8 Class 1

The high-quality of the RJ45 keystone modules warrants very good characteristics for **40 Gbit** Ethernet application. Special tools are not needed. The assembling is being carried out fast and easy. With the RJ45 module you get a full shielded module, which provides you good longterm service in your network infrastructure.

Specifications:

Compact cable presorter for AWG 24/1...22/1
 Pair management according to TIA 568A /B colour codes
 Appropriate for distribution panels and frames with keystone slots
 Flexibel strain relief for different cable diameter

Scope of delivery:

1 x RJ45 keystone, Cable coder, captive dust cover, copper foil, cable ties, mounting instruction

Accessory

Art.-No.	Description
K9210.25	Cat.8.1/Class I Installation link 25m, on cable drum
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005
88035.2	Field installable connector, RJ45 Cat.8 Class 1 AWG22 - 27, zinc alloy

Art.-No.	Description	Colour	Complaint to UL94	4PPOE certified
E-20092	RJ45 Keystone STP, Cat.8 Class 1, 2000MHz	silver	V-0	yes



RJ45 Keystone STP, Cat.6A, 500MHz, Slimline

The RJ45 keystone module slimline garantues very good characteristics for 10Gbit Ethernet application. Special tools are not needed. The assembling is carried out fast and easy. With the RJ45 module slimline you get a full shielded module which provides you good longterm service in your network infrastructure.

Specifications:

Extremely small design „**Slimline**“ for installation with **UAE** frame sets, **design capable**
 Compact cable presorter for contacting IDC-Terminals AWG 24/1 .. 22/1
 Pair management according to TIA 568A /B colour codes
 Appropriate for all distribution panels and frames with keystone slots
 Flexibel strain relief for different cable diameter
 Captive dust cover

Scope of delivery:

1 x RJ45 keystone, Cable coder, 1 x captive dust cover, 1 x copper foil, 2 x cable ties, mounting instruction

Accessory

Art.-No.	Description
ET-25111	Frame Set 2-Port, for Keystones, design capable TAE
ET-25090	Frame Set 2-Port, for slimline keystone module, design capable UAE
37578.1	Distribution Panel 19" 1U, 24-Port, grey RAL7035

Art.-No.	Description	Colour	Complaint to UL94	4PPOE certified
E-20095	RJ45 Keystone Slimline, Cat.6A, silver	silver	V-0	yes



RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter

With the RJ45 10G module you get a fully shielded module, which offers you good services in your network installation for a long time. Due to its short installation depth of 30.5mm, installation in flush boxes and in limited spaces is even easier compared to standard keystones

Properties:

- Installation depth of only 30.5mm
- Compact cable pre-sorter for AWG22/1 ... AWG26/1
- Pair management according to TIA/EIA 568 A/B colour codes (colour code printed on the cable pre-sorter)
- Suitable for distribution panels and support rings with keystone breakout

Scope of supply: 1 x RJ45 Keystone, installation manual (English)



Comparison of installation depth with regular Keystone



Accessory

Art.-No.	Description
ET-25091	2-Port Frame Set for Keystone, straight outlet, DIN49075, RAL9003 signal white
99981.1-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Cca orange
99983.1-CPR	INFRALAN® Cat.7A 1500 AWG22 S/FTP 4P CPR Cca rape yellow RAL1021
MK7100.1-CPR	INFRALAN® Cat.7A 1200 AWG22, S/FTP 4P CPR B2ca orange RAL 2003
K5525FGN.1	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex, 1m, green
MK6001.3Y	RJ45 Patch cable S/FTP, Cat.6A, LSZH, 3m, yellow
MK7001.1Y	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable, 1m, yellow
K5510.2	RJ45 Patch cable S/FTP, Cat.6, LSZH, 2m, grey
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005
WX4500-FA-V2	Copper- and Fiber Optic-Cable Certifier up to 2500MHz

Art.-No.	Description	Colour
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter	silver



RJ45 Keystone STP, Cat.6A 500MHz 10Gbit

The high-quality of the RJ45 keystone modules warrants very good characteristics for 10Gbit Ethernet application. Special tools are not needed. The assembling is being carried out fast and easy. With the RJ45 module you get a full shielded module, which provides you good longterm service in your network infrastructure.

Specifications:

- Cat.6A component certified acc. to ISO/IEC 11801 and IEC 60603-7-51
- Compact cable presorter for AWG 24/1 .. 22/1
- Pair management according to TIA 568A /B colour codes
- Appropriate for distribution panels and frames with keystone slots
- Flexibel strain relief for different cable diameter

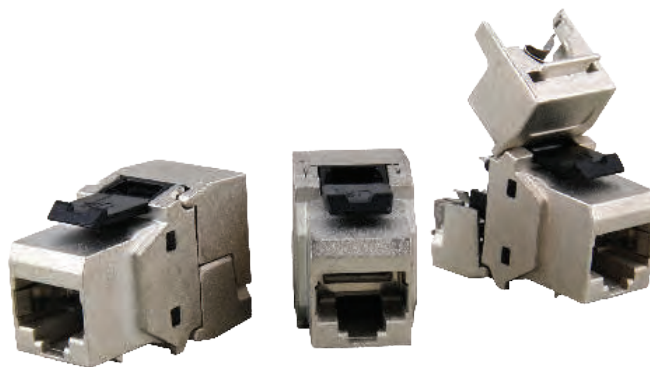
Scope of delivery:

1 x RJ45 keystone, Cable coder, captive dust cover, copper foil, cable ties, mounting instruction

Accessory

Art.-No.	Description
EHT-010	Crimping tool for E-20070 and E-20091

Art.-No.	Description	Colour	Complaint to UL94	4PPOE certified
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified	silver	V-0	yes



RJ45 Keystone STP, Cat.6A / Class EA 500MHz 10Gbit

The RJ45 keystone module provides a combination of excellent transmission qualities and an easy tool-free assembly. The high quality of the RJ45 keystone module ensures very good qualities for 10 Gigabit Ethernet applications. No special tools are needed for the assembly. The assembly is easy and handy to execute. With the RJ45 keystone module you receive a fully shielded module, which will provide good service for a long time in your network installation.

Specifications:

Cat.6A components certified according to ANSI/TIA-568-C.2, ISO/IEC 11801 and IEC 60603-7-51

Compact cable presorter for AWG 26/1 .. AWG 22/1 and AWG26/7 .. AWG24/7

Pair management according to TIA 568A /B colour codes

Appropriate for distribution panels and frames with keystone slots

Scope of delivery:

1 x RJ45 keystone, Cable coder (Black: AWG22/1-AWG26/1; Grey: AWG24/7-AWG26/7), 1 x copper foil, 1 x cable tie, dust cover, mounting instruction



Accessory

Art.-No.	Description
EHT-010	Crimping tool for E-20070 and E-20091
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005

Art.-No.	Description	Colour	Complaint to UL94	4PPOE certified
E-20070	RJ45 Keystone STP, Cat.6A, 500MHz, component certified	silver	V-0	yes



RJ45 Keystone Slimline, Cat.6A, zinc alloy

The high-quality of the RJ45 Slimline keystone modules warrants very good characteristics for 10Gbit Ethernet application. Special tools are not needed. The assembling is being carried out fast and easy. With the RJ45 module you get a full shielded module, which provides you good longterm service in your network infrastructure.

Specifications:

Shielded keystone zinc diecast body

Cat.6A component certified acc. to ISO/IEC 11801 Ed.2.2 (2011-06) and IEC 60603-7-51 Ed.1.1 (2010-03)

Compact cable presorter for AWG 24/1 .. 22/1 and AWG 26/7 .. AWG 24/7
Max. cable diameter: 8,5mm

Pair management according to TIA 568A /B colour codes

PoE and PoE Plus according to IEEE802.3af/at

Appropriate for distribution panels and frames with keystone slots

Scope of delivery:

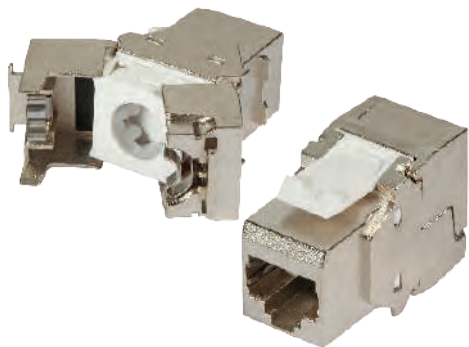
1 x RJ45 keystone, cable tie, mounting instruction



Accessory

Art.-No.	Description
ET-25085V2	Frame set 2-Port, for Keystones, DIN49075, RAL9010
ET-25087V2	Frame set 1-Port, for Keystones, DIN49075, RAL9010
ET-25111K	Keystone Frame revolving 2-Port, for Keystones, design capable TAE

Art.-No.	Description	Colour	Complaint to UL94	4PPOE certified
E-200100	RJ45 Keystone Slimline, Cat.6A, zinc alloy, 10GE	silver	V-0	False



RJ45 Keystone STP, Cat.6 250MHz 5Gbit

The RJ45 keystone module provides a combination of excellent transmission qualities and an easy tool-free assembly. The high quality of the keystone module ensures very good qualities for 5 Gigabit Ethernet applications. No special tools are needed for the assembly. The assembly is easy and handy to execute. With the RJ45 keystone module you receive a fully shielded module, which will provide good service for a long time in your network installation.

Specifications:

Compact cable presorter for AWG 24/1 .. AWG 22/1
 Pair management according to TIA 568A /B colour codes
 Appropriate for all distribution panels and frames with keystone slots

Scope of delivery:

1 x RJ45 keystone, Cable coder, 1 x copper foil, 1 x cable tie, dust cover, mounting instruction

Art.-No.	Description	Colour	Complaint to UL94	4PPOE certified
E-20072	RJ45 Keystone STP, Cat.6, 250 MHz	silver	V-0	yes



ECOLAN® RJ45 Keystone UTP, Cat.6 250MHz 5Gbit

Cat.6 de-embedded zertifiziert (DELTA) acc. to ISO 11801 2nd Edition 2002
 PoE Plus acc. to IEEE 802.3at
 Plastic housing PC+ABS
 Compact cable presorter for AWG 24/1 .. 22/1 and AWG 26/7 .. AWG 24/7
 Max. cable diameter: 8,5mm
 Pair management according to TIA 568A /B colour codes
 PoE and PoE Plus according to IEEE802.3af/at
 Appropriate for distribution panels and frames with keystone slots, not for UAE
 Strain relief via cable tie

Scope of delivery: 1 x RJ45 keystone, 1 x hinged dust cover, 1 x cable tie, 1 x mounting instruction

Art.-No.	Description	Colour	Complaint to UL94	4PPOE certified
E-20080	ECOLAN® RJ45 Keystone UTP, Cat.6, component certified, white	white	V-0	True



ECOLAN® RJ45 Keystone Set UTP, Cat.6 250MHz 5Gbit

Specifications:

Plastic housing PC+ABS for AWG26/1 .. AWG22/1
 Cat.6 component certified acc. to ANSI/TIA-568-C.2 and ISO/IEC 11801
 Max. cable diameter: 8,5mm
 PoE and PoE Plus according to IEEE802.3af/at
 Appropriate for distribution panels and frames with keystone slots, not for UAE
 LSA terminal with colour code according to TIA/EIA 568A/B
 LSA insertion tool (39951.1) or EHT-040 recommended

Scope of delivery:

12 polybags each with: 1 x RJ45 keystone, 1 x dust cover, 1 x cable tie, 1 x mounting instruction

Art.-No.	Description	Colour	Complaint to UL94	4PPOE certified
1120166	ECOLAN® RJ45 Keystone UTP, Cat.6, 250MHz, Set 12 pieces, white	white	V-0	yes

Accessory

Art.-No.	Description
39931.1	LSA/IDC Insertion Tool for UTP Keystone
EHT-040	Crimping tool for UTP Keystone



ECOLAN® RJ45 Keystone Set UTP, Cat.5e 100MHz 2.5Gbit

Plastic housing PC+ABS for AWG26/1 .. AWG22/1
 Max. cable diameter: 8,5mm
 PoE and PoE Plus according to IEEE802.3af/at
 Appropriate for distribution panels and frames with keystone slots, not for UAE
 LSA terminal with colour code according to TIA/EIA 568A/B
 LSA insertion tool (39951.1) or EHT-040 recommended

Scope of delivery:

12 polybags each with: 1 x RJ45 keystone, 1 x dust cover, 1 x cable tie, 1 x mounting instruction

Art.-No.	Description	Colour	Complaint to UL94
1120155	ECOLAN® RJ45 Keystone UTP, Cat.5e, 100MHz, Set 12 pieces, white	white	V-0

Accessory

Art.-No.	Description
39931.1	LSA/IDC Insertion Tool for UTP Keystone
EHT-040	Crimping tool for UTP Keystone



Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° angled

Snap-In mounting (Keystone)
 Cat.6A
 90° angled
 Connecting adapter for patch cables
 2x RJ45 connectors shielded
 Allocation: 1:1
 Metal housing
 Snap-in spring: plastic

Art.-No.	Description
37484.2V2	Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° angled



Keystone Snap-In Adapter RJ45 STP, Cat.6A

Snap-In mounting (Keystone)
 Cat.6A/Class EA
 Connecting adapter for patch cables
 2x RJ45 connectors shielded
 Allocation: 1:1
 Metal housing
 Snap-in spring: plastic

Art.-No.	Description
37521.1V2	Keystone Snap-In Adapter RJ45 STP, Cat.6A



Keystone Snap-In Adapter RJ45 STP, Cat.6A 90° access

Snap-In mounting (Keystone)
 Cat.6A
 Connecting adapter for patch cables
 2x RJ45 connectors shielded, with on one side 90° entry
 Allocation: 1:1
 Stainless steel housing
 Snap-in spring: metal

Art.-No.	Description
37483.1	Keystone Snap-In Adapter RJ45 STP, Cat.6A, 90° access



Keystone Snap-In Adapter RJ45 STP, Cat.6

Snap-In mounting (Keystone)
 Cat.6
 Connecting adapter for patch cables
 2x RJ45 connectors shielded
 Allocation: 1:1
 Metal housing
 Snap-in spring: plastic

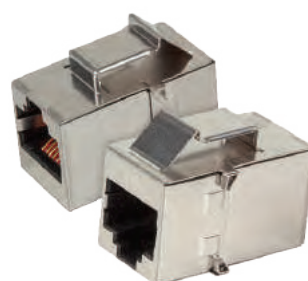
Art.-No.	Description
37486.1	Keystone Snap-In Adapter RJ45 STP, Cat.6



Keystone Snap-In Adapter RJ45 UTP, Cat.6

Snap-In mounting (Keystone)
 Cat.6
 Connecting adapter for patch cables
 2x RJ45 connectors unshielded
 Allocation: 1:1
 Plastic housing
 Snap-in spring: plastic

Art.-No.	Description
37488.1	Keystone Snap-In Adapter RJ45 UTP, Cat.6



Keystone Snap-In Adapter RJ45 STP, Cat.5e

Snap-In mounting (Keystone)
 Cat.5e
 Connecting adapter for patch cables
 2x RJ45 connectors shielded
 Allocation: 1:1
 Snap-in spring

Art.-No.	Description
37508.1V3	Keystone Snap-In Adapter RJ45 F/F STP, Cat.5e, Stainless Steel



Distribution Panel 19" 1U, 24-Port, black with Keystone Cat.6A

Distribution Panel 19" 1U, 24-port, black or grey with 24x RJ45 Keystone Slimline Cat.6A. Keystones are individually packed and enclosed to the distribution panel in a complete package.

Scope of delivery black version:
1 x Distribution Panel 37580.1
24 x RJ 45 Keystone Cat.6a E-200100

Art.-No.	Description
B37200100TS.24	Distribution Panel 19" 1U, 24-Port, black with 24x RJ45 Keystone Slimline Cat.6A
B37200100GR.24	Distribution Panel 19" 1U, 24-Port, grey with 24x RJ45 Keystone Slimline Cat.6A

Accessory

Art.-No.	Description
99983.1-CPR	INFRALAN® Cat.7A 1500 AWG22 S/FTP 4P CPR Cca rape yellow RAL1021
99981.1-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Cca orange
99985.1-CPR	INFRALAN® Cat.7A 1250 AWG23 S/FTP 4P CPR Cca rape yellow RAL1021
MK7100.1-CPR	INFRALAN® Cat.7A 1200 AWG22, S/FTP 4P CPR B2ca orange RAL 2003
K5525FGR.1	RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex, 1m, grey
MK6001.1G	RJ45 Patch cable S/FTP, Cat.6A, LSZH, 1m, grey
MK7001.1G	RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 Raw cable, 1m, grey
K3130.1	RJ45 Patch cable S/FTP, Cat.6A, PUR, Cat.7 Raw cable, TM31, 1m, black
WX4500-FA-V2	Copper- and Fiber Optic-Cable Certifier up to 2500MHz
WX500	Copper Cable Certifier 500MHz



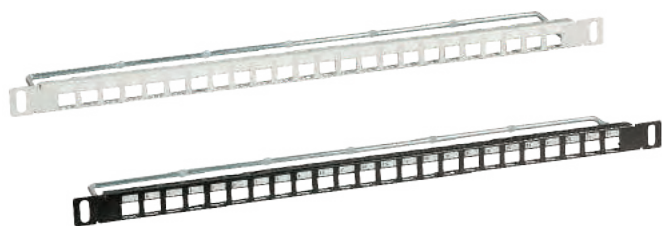
Distribution Panel 19" 1U 24-Port

For holding of modules in keystone format
Inclusive cable management
Labeling fields with transparent cover
Stain relief via cable tie
Delivery without modules

Art.-No.	Description
37576.1	Distribution Panel 19" 1U, 24-Port, metallic
37578.1	Distribution Panel 19" 1U, 24-Port, grey RAL7035
37580.1	Distribution Panel 19" 1U, 24-Port, black RAL9005

Accessory

Art.-No.	Description
38018.2-100	RJ45 Blind Inserts black RAL9011, for keystone holes, PU 100
38018.1-100	RJ45 Blind Inserts white RAL9010, for keystone holes, PU 100



Distribution Panel 19" 0,5U 24-Port

For holding of modules in slimline keystone format
Inclusive cable management
Labeling fields with transparent cover
Stain relief via cable tie
Delivery without modules

Art.-No.	Description
37586.1	Distribution Panel 19" 0,5U, 24-Port, grey, RAL7035
37586.1SW	Distribution Panel 19" 0,5U, 24-Port, black, RAL9005

Accessory

Art.-No.	Description
38018.1-100	RJ45 Blind Inserts white RAL9010, for keystone holes, PU 100



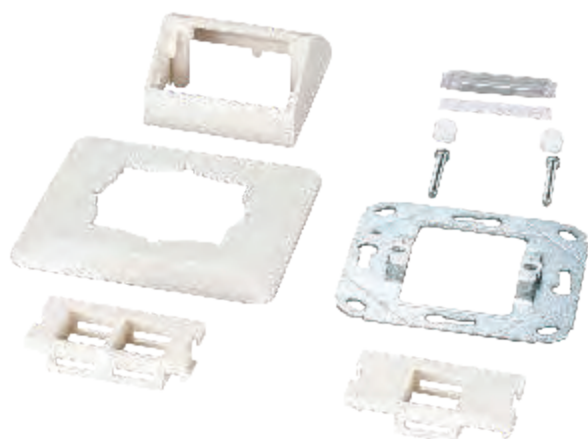
ECOLAN® Distribution Panel 19" 1U 24-Port

For holding of modules in keystone format
Inclusive cable management
Stain relief via cable tie
Delivery without modules

Art.-No.	Description
11124115	ECOLAN® Distribution Panel 19" 1U, 24-Port, black

Accessory

Art.-No.	Description
38018.1-100	RJ45 Blind Inserts white RAL9010, for keystone holes, PU 100



Multifunctional frame set

Multifunctional frame set in signal white (RAL9003) for universal use, whether for RJ45 data connections, HDMI or display port connections for meeting rooms or data outlets for USB in keystone format. With the multifunctional frame set, you can cover all these applications with just one item.

The frame set is designed in such a way that it is possible to accommodate the various space requirements of cables and connectors during installation. Thus it is also possible to upgrade existing installations and bring them into a structured shape.

RJ45 data connection:

To do this, simply use the 1- or 2-port adapter and equip it with a corresponding keystone (e.g. EFB article: E-20095, E-200100, E-20093) and connect the installation cable. If you have not laid a installation cable but a patch cable, this is also no problem. Then simply use the RJ45 Yesck/Yesck adapter (EFB article: e.g. 37521.1V2, 37486.1) of our portfolio for this purpose. In combination with a multimedia keystone adapter, we recommend the use of a slimline keystone module (E-200100 or E-20095).

Display port connection:

For this you need the display port adapter that has been developed for this frameset. By simply exchanging/inserting the adapter, you have the corresponding interface ready for use. Please note that a maximum connector length of 47.5 mm is not exceeded in the frame set.

HDMI connection:

Simply use the 1- or 2-port adapter and equip it with an HDMI adapter (EFB article: EB520V2) and connect the installed HDMI cables. The highlight here is that you could use, for example, an HDMI adapter and a USB adapter to get active control of the beamer or projection device.

USB connection:

For this purpose, use the 1- or 2-port adapters already supplied and equip them with a USB keystone, regardless of which plug-in face or USB standard (EFB articles: EB534, EB527V2, EB552WS).

Fiber optic connection:

Use the 1- or 2-port adapters already supplied and even equip them with adapters for fiber optic connections. All you need is the fiber optic adapter 37501xx.1 and flangeless adapters (EFB articles: 53515.1, 53511.1) and the box is ready for fiber optic connection.

Art.-No.	Description	Colour
ET-25092	Multifunctional frame set with 1- +2-port adapter Keystone Format(HDMI,USB,RJ45)	white
ET-25092.1	1-Port Adapter for ET-25092.3 for Keystone Format(HDMI,USB,RJ45)	white
ET-25092.2	2-Port Adapter for ET-25092.3 for Keystone Format(HDMI,USB,RJ45)	white
ET-25092.3	Multifunctional frame set without adapter for Keystone Format(HDMI,USB,RJ45)	white
ET-25092.4	Displayport Adapter for ET-25092 and ET-25092.3	white

Accessory

Art.-No.	Description
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter
E-20095	RJ45 Keystone Slimline, Cat.6A, silver
E-200100	RJ45 Keystone Slimline, Cat.6A, zinc alloy, 10GE
EB520V2	Keystone Snap-In Adapter HDMI A - A, black
37521.1V2	Keystone Snap-In Adapter RJ45 STP, Cat.6A
EB534	Keystone Snap-In Adapter USB2.0 A - B, black
EB527V2	Keystone Snap-In Adapter USB2.0 A - A, black
EB552WS	Keystone Snap-In Adapter USB3.1 white, Type-C-Yesck/C-Yesck, 10Gbit/s, 60W
EB552	Keystone Snap-In Adapter USB3.1 black, Type-C-Yesck/C-Yesck 10Gbit/s, 60W
37501SW.1	Keystone Adapter-Frame, black
37501WS.1	Keystone Adapter-Frame, white
53511.1	Adapter SC Simplex SM one piece, flangeless, blue, ceramic sleeve
53526.1	Adapter E2000®/APC flangeless zirconia sleeve,
53515.1	Adapter LC Duplex SM one piece, flangeless, blue, ceramic sleeve
53458.1	MTP/MPO adapter flangeless, codable up/up or up/down



Adapter frame for design compatibility for ET-25092.x and FTTH-OUTLET-xx to various switch programmes

Art.-No.	Description	Colour
ET-25092.5	Adapter frame design compatibility with Berker, RAL9003	white
ET-25092.6	Adapter frame design compatibility with Jung, RAL9003	white
ET-25092.7	Adapter frame design compatibility with Merten, RAL9003	white
ET-25092.8	Adapter frame design compatibility with Gira, RAL9003	white

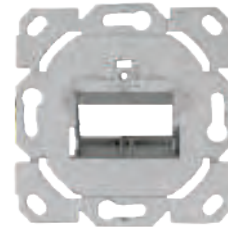


Frame Set 1/2 - Port for Keystones, DIN49075

For holding all EFB RJ45 Keystone modules
 Frame set in 1-port or 2-port
 40° slanted outlet
 Outer ring 80x80mm and central plate 50x50mm according to DIN49075
 Compatible to common switch programmes with adapter plate
 Separate earthing lead for 6.3mm fast-on connection
 With dust covers and labeling fields

Scope of delivery: Keystone frame, outer ring, central plate

Art.-No.	Description	Colour
ET-25087V2	Frame Set 1-port, for keystones, DIN49075, RAL9010	white
ET-25085V2	Frame Set 2-port, for keystones, DIN49075, RAL9010	white



Frame Set for 2 x Slimline Keystone, design capable UAE

Zinc diecast mounting frame
 For holding 2 keystone slimline modules e.g. E-20095, E-200100
 40° slanted outlet
 RAL 9010
 Design capable, compatible to the **UAE** central plates of switch range manufacturers
 Embedded dust cap
 Embedded grounding lead for 6.3mm blade receptacle

Scope of delivery: keystone frame, outer ring, central plate

Art.-No.	Description	Colour
ET-25090	Frame Set 2-Port, for slimline keystone module, design capable UAE	white
ET-25090K	UAE mounting frame for 2x Keystone Module, slimline, design capable	

Accessory

Art.-No.	Description
E-20095	RJ45 Keystone Slimline, Cat.6A, silver
E-200100	RJ45 Keystone Slimline, Cat.6A, zinc alloy, 10GE



Keystone Frame Set 2-Port, for Keystones, design capable TAE

Takes 2 RJ45 keystone modules
 Housing material: aluminium diecast
 40° slanted outlet
 Design capable, compatible to the **TAE** central plates of switch range manufacturers
 Revolving mounting ring at ET-25111K for horizontal and vertical fixing
 Delivery without modules and central frame

Art.-No.	Description	Colour
ET-25111K	Keystone Frame revolving 2-Port, for Keystones, design capable TAE	aluminium

Accessory

Art.-No.	Description
E-20070	RJ45 Keystone STP, Cat.6A, 500MHz, component certified
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified



Frame Set 2-Port, for Keystones, design capable TAE

Takes 2 RJ45 keystone modules
 Housing material: aluminium diecast
 40° slanted outlet
 Design capable, compatible to the **TAE** central plates of switch range manufacturers
 Delivery without modules and central frame

Art.-No.	Description	Colour
ET-25111	Frame Set 2-Port, for Keystones, design capable TAE	aluminium



2-Port Frame Set for Keystone, straight outlet DIN49075, RAL9003 signal white

To accommodate all EFB RJ45 Keystone modules (E-200100, E-20095, 37508.1 excluded)
 Frame set in 2-port
 straight outlet
 Outer ring 80x80mm and central plate 50x50mm according to DIN49075
 Compatible with any switch range with the adapter plate of the switch range manufacturer
 With integrated labelling field

Scope of delivery: Support ring, outer ring, central plate

Art.-No.	Description	Colour
ET-25091	2-Port Frame Set for Keystone, straight outlet, DIN49075, RAL9003 signal white	white

Accessory

Art.-No.	Description
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter



Floor Tank Holder for 6 or 9 Keystone

Frame set for mounting 6(ET-25178V2) or 9(ET-25179V2) keystone modules For installation in OBO Bettermann floor tanks GB2/GB3 Delivery unequipped

Art.-No.	Description
ET-25178V2	Floor tank holder 2 x for 6 Keystone
ET-25179V2	Floor tank holder 3 x for 9 Keystone

Accessory

Art.-No.	Description
E-20070	RJ45 Keystone STP, Cat.6A, 500MHz, component certified
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified



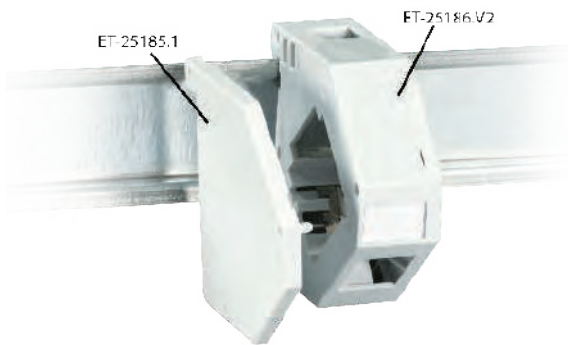
Consolidation Point CP-Box

Robust steel case with divided cover
Suitable for installation of 4, 8, 12 or 24 keystone modules
Front cover hinged and can be opened tool-free
Screwed Rear cover for protection against access
Cable entries front and rear with dust-tight sealing strips
Separate grounding bolt
Protection class IP20
Black powder coating

Art.-No.	Description
ET-25172	Consolidation Point Box, for 4x Keystone
ET-25172.1	Consolidation Point Box, for 8x Keystone
ET-25172.2	Consolidation Point Box, for 12x Keystone
ET-25172.3	Consolidation Point Box, for 24x Keystone

Accessory

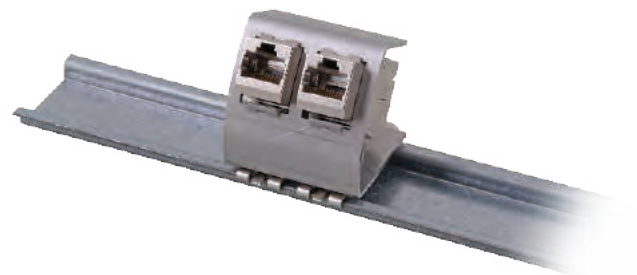
Art.-No.	Description
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified
E-20093	RJ45 Shortbody Keystone STP, Cat.6A 500MHz with internal shutter



Keystone holder 1-Port, for DIN-Rail, plastic

Module holder for mounting on DIN-Rail TH35 acc. to DIN EN60715. 1 DU (> 18 mm) width (DIN 43880). For Keystone RJ45 (E-20070, E-20072, E-20090). Side-by-side mountable, with earthing spring. Colour: RAL7035, light grey. An end plate is always necessary. Module holder requires an end plate, several connected module holders also require only one end plate.

Art.-No.	Description
ET-25186.V2	Keystone holder 1-Port, for DIN Rail, plastic
ET-25185.1	Endplate left for Keystone holder ET-25186.V2



Keystone holder for DIN-Rail, Stainless Steel

Keystone holder, stainless steel
Intended for mounting on DIN-Rail
Delivery without Keystone Modules

Art.-No.	Description
ET-25184.V2	Keystone holder for DIN-Rail, Stainless Steel, for 1 x Keystone
ET-25184.1V2	Keystone holder for DIN-Rail, Stainless Steel, for 2 x Keystone
ET-25184.2V2	Keystone holder for DIN-Rail, Stainless Steel, for 3 x Keystone



Keystone Installation frame 1-Port

Keystone installation frame 1-Port
Takes 1 keystone modul

Features:

Housing material: zinc-diecast
Universal use on every flat surface/housing, cable duct or wood/metal cover
Staight outlet: 0°

Dimensions: Length: 35.5mm Width: 19.2mm Height: 9.8mm

Scope of delivery: Installation frame 1-Port (without modules), 2x installation screws

Art.-No.	Description	Colour
ET-25188.1	Keystone installation frame 1-Port, zinc diecast, metal coloured	Zinc



Keystone Distribution Box

For 6 or 12 keystone modules from the EFB-Elektronik portfolio
Colour: pure white, RAL9010
Material: ABS
Dimensions: 170 x 110 x 40 mm (L x W x D)
Suitable for wall mounting

Plastic housing consisting of:

1 x upper housing shell, 1 x lower housing shell, 2 x adapter inserts with openings for 6 keystones, 1 x adapter insert for 6 cable entries, 2 x side cover
Delivery without modules

Art.-No.	Description
ET-25174.1	Keystone distribution box surface mounting 6/12 Keystones



Keystone Distribution box surface mounting, dust protection self-closing

For 1 or 2 keystone modules from the EFB-Elektronik portfolio
Colour: pure white, RAL9010
Material: ABS
Dimensions ET-25166: 37 x 65 x 30 mm (L x W x D)
Dimensions ET-25168: 63 x 65 x 30 mm (L x W x D)
Suitable for wall mounting
Dust cap self closing
Labeling field hinged
Delivery without modules

Scope of delivery:

- 1 x case
- 1 x double sided tape
- 1 x cable tie
- 2 x self tapping screws 4x14

Art.-No.	Description
ET-25166	Keystone Distribution box surface mounting, 1-Port, dust protection self-closing
ET-25168	Keystone Distribution box surface mounting, 2-Port, dust protection self-closing

Accessory

Art.-No.	Description
H83030.1	DIN-Rail holder set



KDO-Outlet (SM), IP44

Labeling field hinged
Lockable
Colour similar RAL7035, light grey
Dimensions: 93 x 90 x 90 mm / Weight ca. 265 g

Cable entry upside M25 (optional left/right/downside or in the base prepared)
Plastic material poly carbonate + PE
Cable entry for cable diameter up to 18 mm
2 keys included in delivery
Delivery without modules

Art.-No.	Description	Colour
ET-25023V2	KDO-Outlet IP44, for 2 x Keystones with labeling field	grey

Accessory

Art.-No.	Description
E-20072	RJ45 Keystone STP, Cat.6, 250 MHz
E-20091	RJ45 Keystone STP, Cat.6A, 500MHz, component certified



Modular-Adapter RJ45 UTP, Cat.6

Cat.6
Connecting adapter for patch cables
2x RJ45 connectors unshielded
Allocation: 1:1
Plastic housing

Art.-No.	Description
37487.1	Modular-Adapter RJ45 UTP, Cat.6



Modular-Adapter RJ45 STP, Cat.6

Cat.6
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing

Art.-No.	Description
37489.1	Modular-Adapter RJ45 STP, Cat.6



Modular-Adapter RJ45 STP, Cat.5e, metal coloured

Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1 wired (37529.1) / crossed (37529.2)
Housing metal coloured

Art.-No.	Description
37529.1	Modular-Adapter RJ45 STP, Cat.5e, metal coloured, 1:1



Modular-Adapter RJ45 STP, metal coloured

Connecting adapter for patch cables
2x RJ45 connectors unshielded
Allocation: 1:1
Housing metal coloured

Art.-No.	Description
37507.1	Modular-Adapter RJ45 UTP, metal coloured



Modular-Adapter RJ45 UTP

Connecting adapter for patch cables
2x RJ45 connectors unshielded
Allocation: 1:1
Plastic housing

Art.-No.	Description
37503.1	Modular-Adapter RJ45 UTP



Modular-Adapter RJ45 STP, Cat.6A

Cat.6A
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing

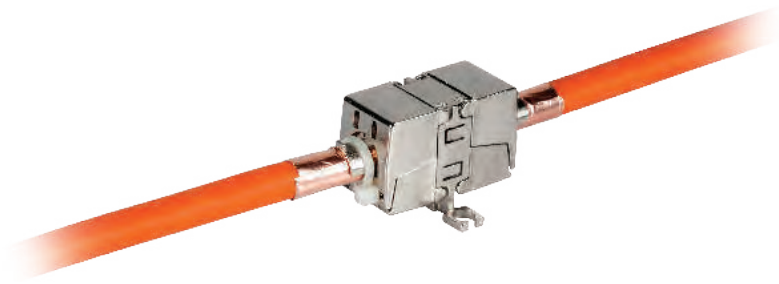
Art.-No.	Description
37489.2	Modular-Adapter RJ45 STP, Cat.6A



Modular-Adapter RJ45 STP, Cat.6A, with flange for wall mounting

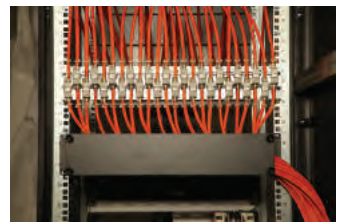
Cat.6A
Connecting adapter for patch cables
2x RJ45 connectors shielded
Allocation: 1:1
Metal housing

Art.-No.	Description
37527.1	Modular-Adapter RJ45 STP, Cat.6A, with flange for wall mounting



Connection module Cat.6A / Class EA 10Gbit/s

Fully shielded zinc diecast bodyhousing
 Dimension (W x H x L) 18 x 26 x 39 mm
 Link performance 10 Gbit/s Class EA acc. to ISO 11801
 2 x compact cable manager for AWG26/1..AWG22/1 and AWG26/7..AWG24/7
 Max. cable diameter: 8,5mm
 Pair management with colour code, printed on cable manager
 Reliable differentiation of cable managers by mechanical and colour assignment (plastic black / white) on the cable coupler and on cable managers
 PoE and PoE Plus according to IEEE802.3af/at
 360° shield contact and strain relief independent from each other
 Gliding stored shield contact
 Screw- and line-up through loops at the side of the module
 19" panel for holding of 24 x modules available as Accessory



Scope of delivery:

1 x connection module, 2 x cable pre-sorter (black + white), 2 x copper foil, 2 x cable ties

Art.-No.	Description	Colour
37597.1	Connection Module Cat.6A / Class EA 10Gbit/s	silver

Accessory

Art.-No.	Description
37597.P	Holding Panel for 19" / Wall Mounting of 24 x Coupler 37597.1



Connection module Cat.7 600MHz

Connection module Cat.7 up to 600 MHz
 With IDC-terminals
 For extending installation cables
 For reconnecting damaged cables
 For all standard 4- or 8-core installation cables from AWG 26-22
 Max. sheath diameter of 10 mm
 Housing metallized inside

Accessory

Screw-type strain relief (M3x12)
 Cable inlet (4 x)
 With adhesive tapes for fixing

Art.-No.	Description	Colour
37596.1	Connecting module Cat.7 600MHz with IDC - terminal	black



Connection module Cat.6 250MHz

Connection module Cat.6 up to 250 MHz
 With IDC-terminals
 For extending installation cables
 For reconnecting damaged cables
 For all standard 4- or 8-core installation cables from AWG 26-22
 Screw-type strain relief
 Max. sheath diameter of 7.5 mm
 Housing metallized

Accessory

Screw-type strain relief (M3x12)
 Cable inlet (4 x)
 With adhesive tapes for fixing

Art.-No.	Description	Colour
37596.2	Connecting module Cat.6 250MHz with IDC - terminal	silver

PATCH CABLE //

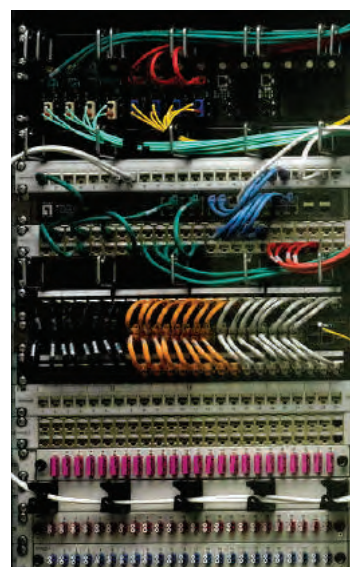


Patch cable Overview	P. 131
Patch cable Office screened	P. 132 - 139
Patch cable Office unscreened	P. 141 - 143
Patch cable Industry screened	P. 145 - 147

// YOU MIGHT ALSO BE INTERESTED IN:

Patchpanel	P. 150
Network Switches	P. 314
Media Converter	P. 318
Cable Management	P. 240
Product Refinement	P. 87
Keystones	P. 116

Art. No.:	Category / Bandwidth	Shielding/ AWG	Boot / Length Imprint	Jacket	Cable Diameter	Gigabit Ethernet	2.5 Gigabit Ethernet	5 Gigabit Ethernet	10 Gigabit Ethernet	40 Gigabit Ethernet	Flexibility	Conductive Shield	Rawable acc. to Cat.7	Conductor	Plug	Temperature Range
DKC1001xx.x	Cat.6A / 500MHz	S/FTP AWG26/7	mounted / yes	LSZH coloured	6.2 mm	X	X	X	X		usual	RJ45 with 360° shield contact	X	100% copper	RJ45 LED	-20°C - +60°C
K0993.x	Cat.5e / 100MHz	S/UTP AWG26/7	mounted / no	PVC coloured Dätwyler 5502	5.1 mm	X	X				good	RJ45 with 360° shield contact		100% copper	1 x TM11 HRS 1 x TM11 90°	-20°C - +60°C
K2793.x	Cat.5e / 100MHz	SF/UTP AWG26/7	mounted / no	LSZH red Draka UC300	5.7 mm	X	X				usual	RJ45 with 360° shield contact		100% copper	TM11 HRS	-20°C - +60°C
K4137xx	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Draka UC900	5.9 mm	X	X	X	X		usual	RJ45 with 360° shield contact	X	100% copper	TM21 90° HRS red	-20°C - +60°C
K54xx.x	Cat.5e / 100MHz	SF/UTP AWG26/7	moulded / yes	PVC coloured	5.7 mm	X	X				usual	selected shield contact		CCA	RJ45 Standard	0°C - +60°C
K5450.x	Cat.5e / 100MHz	SF/UTP AWG26/7	red, moulded / yes	PVC gray	5.7 mm	X	X				usual	selected shield contact		CCA	RJ45 Standard	0°C - +60°C
K551xx.x	Cat.6 / 250MHz	S/FTP AWG27/7	moulded / yes	LSZH coloured	6.2 mm	X	X	X	X		usual	selected shield contact	X	100% copper	RJ45 red	0°C - +60°C
K5525Fxx.x	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / yes	TPE coloured	6.0 mm	X	X	X	X		superflex	selected shield contact	X	100% copper	RJ45 blue	-20°C - +75°C
K5545xx.x	Cat.6A / 500MHz	U/FTP AWG30/7	moulded / no	PVC coloured	7.0 x 2.2 mm	X	X	X	X		very good	selected shield contact		100% copper	RJ45 ultra short	-20°C - +55°C
K5547xx.x	Cat.6A / 500MHz	U/FTP AWG30/7	moulded / no	TPE coloured	4.0 mm	X	X	X	X		ultraflex	selected shield contact		100% copper	RJ45 ultra short	-20°C - +75°C
K801xx	Cat.5e / 100MHz	SF/UTP AWG26/7	mounted / no	LSZH coloured Draka UC300	5.7 mm	X	X				usual	RJ45 with 360° shield contact		100% copper	TM11 HRS	-20°C - +60°C
K805xx	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Draka UC900	5.9 mm	X	X	X	X		usual	RJ45 with 360° shield contact	X	100% copper	TM21 HRS red	-20°C - +60°C
K807xx	Cat.5e / 100MHz	F/UTP AWG26/7	mounted / no	LSZH coloured	5.4 mm	X	X				usual	RJ45 with 360° shield contact		100% copper	TM11 HRS	-20°C - +60°C
K8210xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Leoni-kerpen	5.7 mm	X	X	X	X		usual	RJ45 with 360° shield contact	X	100% copper	TM21 HRS red	-20°C - +60°C
K8452.x	Cat.5e / 100MHz	F/UTP AWG26/7	mounted / no	LSZH gray	5.4 mm	X	X				usual	RJ45 with 360° shield contact		100% copper	TM11 HRS	-20°C - +60°C
K8560xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Draka UC900	5.9 mm	X	X	X	X		usual	RJ45 with 360° shield contact	X	100% copper	TM31 HRS yellow	-20°C - +60°C
K8580xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Dätwyler	5.9 mm	X	X	X	X		usual	RJ45 with 360° shield contact	X	100% copper	TM31 HRS yellow	-20°C - +60°C
K870xx	Cat.5e / 100MHz	S/UTP AWG26/7	mounted / no	PVC coloured Dätwyler 5502	5.1 mm	X	X				good	RJ45 with 360° shield contact		100% copper	TM11 HRS	-20°C - +60°C
K8708xx.x	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	LSZH coloured Dätwyler	6.0 mm	X	X	X	X		usual	RJ45 with 360° shield contact	X	100% copper	TM21 HRS red	-20°C - +60°C
MK7001..xxx	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / yes	LSZH coloured	6.5 mm	X	X	X	X		usual	selected shield contact	X	100% copper	RJ45 yellow	0°C - +60°C
K5528xx.x	Cat.8.1 / 2000MHz	S/FTP AWG24/7	moulded / yes	LSZH coloured	8.0 mm	X	X	X	X	X	usual	selected shield contact		100% copper	RJ45 Standard	0°C - +60°C
MK6001..xxx	Cat.6A / 500MHz	S/FTP AWG27/7	moulded / yes	LSZH coloured	6.0 mm	X	X	X	X		usual	selected shield contact		100% copper	RJ45 green	-20°C - +60°C
K5539xx.x	Cat.6 / 250MHz	S/FTP AWG26/7	moulded / nein	LSZH coloured	6.2 mm	x	x	x			usual	selected shield contact		100% copper	RJ45 Standard	-20°C - +60°C
K5546xx.x	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / ja	LSZH coloured	6.2 mm	x	x	x	x		usual	selected shield contact		100% copper	RJ45 Standard	-20°C - +75°C
MK6001W..xx	Cat.6A / 500MHz	S/FTP AWG27/7	moulded / ja	LSZH coloured	6.0 mm	x	x	x	x		usual	selected shield contact		100% copper	RJ45 green	-20°C - +60°C



RJ45 Patch cable S/FTP, Cat.6, LSZH

The shielded Cat.6 RJ45 patch cable with ensures excellent performance for 5 Gigabit Ethernet applications.

Moulded grommet (patented)
Length imprint on the boot

Category:.....6
 Bandwidth:.....250MHz
 Allocation:.....acc. to TIA/EIA 568B
 Conductor Material:.....Copper
 Connector type:.....RJ45 Standard, IEC 60603-7-5
 Contacts:.....Gold plated
 Locking lever:.....yes
 Cable type:.....S/FTP
 Flame-retardant:.....acc. to IEC60332-1
 Halogen free:.....yes
 Low smoke:.....yes
 Jacket material:LSZH
 Cable Construction:.....4x2x27/7
 Outer diameter of the cable: 6.2 mm

Stock length: 0,15 - 0,25 - 0,5 - 0,75 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

Length-Variants Matrix

	grey	yellow	red	blue	green	black	orange	brown	white	magenta
0,15 m	K5510.0,15	K5511.0,15	K5512.0,15	K5513.0,15	K5514.0,15	K5515.0,15	K5516.0,15	K5517.0,15	K5518.0,15	K5519.0,15
0,25 m	K5510.0,25	K5511.0,25	K5512.0,25	K5513.0,25	K5514.0,25	K5515.0,25	K5516.0,25	K5517.0,25	K5518.0,25	K5519.0,25
0,5 m	K5510.0,5	K5511.0,5	K5512.0,5	K5513.0,5	K5514.0,5	K5515.0,5	K5516.0,5	K5517.0,5	K5518.0,5	K5519.0,5
1,0 m	K5510.1	K5511.1	K5512.1	K5513.1	K5514.1	K5515.1	K5516.1	K5517.1	K5518.1	K5519.1
1,5 m	K5510.1,5	K5511.1,5	K5512.1,5	K5513.1,5	K5514.1,5	K5515.1,5	K5516.1,5	K5517.1,5	K5518.1,5	K5519.1,5
2,0 m	K5510.2	K5511.2	K5512.2	K5513.2	K5514.2	K5515.2	K5516.2	K5517.2	K5518.2	K5519.2
3,0 m	K5510.3	K5511.3	K5512.3	K5513.3	K5514.3	K5515.3	K5516.3	K5517.3	K5518.3	K5519.3
5,0 m	K5510.5	K5511.5	K5512.5	K5513.5	K5514.5	K5515.5	K5516.5	K5517.5	K5518.5	K5519.5
7,5 m	K5510.7,5	K5511.7,5	K5512.7,5	K5513.7,5	K5514.7,5	K5515.7,5	K5516.7,5	K5517.7,5	K5518.7,5	K5519.7,5
10,0 m	K5510.10	K5511.10	K5512.10	K5513.10	K5514.10	K5515.10	K5516.10	K5517.10	K5518.10	K5519.10
15,0 m	K5510.15	K5511.15	K5512.15	K5513.15	K5514.15	K5515.15	K5516.15	K5517.15	K5518.15	K5519.15
20,0 m	K5510.20	K5511.20	K5512.20	K5513.20	K5514.20	K5515.20	K5516.20	K5517.20	K5518.20	K5519.20
25,0 m	K5510.25	K5511.25	K5512.25	K5513.25	K5514.25	K5515.25	K5516.25	K5517.25	K5518.25	K5519.25
30,0 m	K5510.30	K5511.30	K5512.30	K5513.30	K5514.30	K5515.30	K5516.30	K5517.30	K5518.30	K5519.30
40,0 m	K5510.40	K5511.40	K5512.40	K5513.40	K5514.40	K5515.40	K5516.40	K5517.40	K5518.40	K5519.40
50,0 m	K5510.50	K5511.50	K5512.50	K5513.50	K5514.50	K5515.50	K5516.50	K5517.50	K5518.50	K5519.50



RJ45 Patch cable S/FTP, Cat.8.1, BC

The Cat.8.1 patch cable is suitable for 25GBASE-T and 40GBASE-T applications based on RJ45. The Cat.8.1 has a frequency range of up to 2000MHz and a maximum transmission distance of currently 30m.

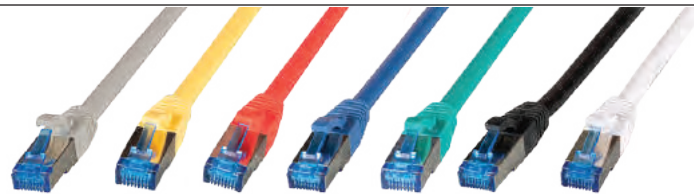
Length imprint on grommet

Category:.....8.1
 Bandwidth:.....2000MHz
 Allocation:.....acc. to TIA/EIA 568B
 Conductor Material:.....Copper
 Connector type:.....RJ45 Standard, IEC 60603-7-81
 KontakteContacts:.....Gold plated
 Locking lever:.....yes
 Cable type:.....S/FTP
 Jacket material:.....LSZH
 Cable construction:.....4x2x24/7
 Outer diameter of the cable: 8 mm
 Anti-kink sleeve:.....plugged in

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10,0 m

Length-Variants Matrix

	grey	yellow	red	blue	green	black
0,5 m	K5528GR.0,5	K5528GE.0,5	K5528RT.0,5	K5528BL.0,5	K5528GN.0,5	K5528SW.0,5
1,0 m	K5528GR.1	K5528GE.1	K5528RT.1	K5528BL.1	K5528GN.1	K5528SW.1
2,0 m	K5528GR.2	K5528GE.2	K5528RT.2	K5528BL.2	K5528GN.2	K5528SW.2
3,0 m	K5528GR.3	K5528GE.3	K5528RT.3	K5528BL.3	K5528GN.3	K5528SW.3
5,0 m	K5528GR.5	K5528GE.5	K5528RT.5	K5528BL.5	K5528GN.5	K5528SW.5
7,5 m	K5528GR.7,5	K5528GE.7,5	K5528RT.7,5	K5528BL.7,5	K5528GN.7,5	K5528SW.7,5
10,0 m	K5528GR.10	K5528GE.10	K5528RT.10	K5528BL.10	K5528GN.10	K5528SW.10



RJ45 Patch cable S/FTP, Cat.6A, Cat.7 raw cable TPE superflex

The shielded Cat.6A RJ45 patch cable with **component certification** from the GHMT ensures excellent performance for 10 Gigabit Ethernet applications. The **TPE** outer sheath makes the cable **highly flexible** and thus easier to handle. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Moulded grommet, slim design

Length imprint on the boot

Category:.....6A (IEC)
 Transmission:.....10Gbit
 Bandwidth:.....500MHz
 Allocation:.....acc. to TIA/EIA 568B
 Conductor material:.....Copper
 Connector type:.....RJ45 Standard, IEC 60603-7-51
 Contacts:.....50 µ" Gold plated
 Locking lever:.....yes
 Cable type:.....S/FTP
 Raw cable:.....Cat.7
 Halogen free:.....acc. to IEC60754-2
 Low smoke:.....acc. to IEC61034
 Jacket-material:.....TPE/LSZH
 Cable construction:.....4x2x26/7
 Outer diameter of the cable: 6.5 mm

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Length-Variants Matrix

	grey	yellow	red	blue	green	black	white
0,15 m	K5525FGR.0,15	K5525FGE.0,15	K5525FRT.0,15	K5525FBL.0,15	K5525FGN.0,15	K5525FSW.0,15	K5525FWS.0,15
0,25 m	K5525FGR.0,25	K5525FGE.0,25	K5525FRT.0,25	K5525FBL.0,25	K5525FGN.0,25	K5525FSW.0,25	K5525FWS.0,25
0,5 m	K5525FGR.0,5	K5525FGE.0,5	K5525FRT.0,5	K5525FBL.0,5	K5525FGN.0,5	K5525FSW.0,5	K5525FWS.0,5
1,0 m	K5525FGR.1	K5525FGE.1	K5525FRT.1	K5525FBL.1	K5525FGN.1	K5525FSW.1	K5525FWS.1
1,5 m	K5525FGR.1,5	K5525FGE.1,5	K5525FRT.1,5	K5525FBL.1,5	K5525FGN.1,5	K5525FSW.1,5	K5525FWS.1,5
2,0 m	K5525FGR.2	K5525FGE.2	K5525FRT.2	K5525FBL.2	K5525FGN.2	K5525FSW.2	K5525FWS.2
3,0 m	K5525FGR.3	K5525FGE.3	K5525FRT.3	K5525FBL.3	K5525FGN.3	K5525FSW.3	K5525FWS.3
5,0 m	K5525FGR.5	K5525FGE.5	K5525FRT.5	K5525FBL.5	K5525FGN.5	K5525FSW.5	K5525FWS.5
7,5 m	K5525FGR.7,5	K5525FGE.7,5	K5525FRT.7,5	K5525FBL.7,5	K5525FGN.7,5	K5525FSW.7,5	K5525FWS.7,5
10,0 m	K5525FGR.10	K5525FGE.10	K5525FRT.10	K5525FBL.10	K5525FGN.10	K5525FSW.10	K5525FWS.10
15,0 m	K5525FGR.15	K5525FGE.15	K5525FRT.15	K5525FBL.15	K5525FGN.15	K5525FSW.15	K5525FWS.15
20,0 m	K5525FGR.20	K5525FGE.20	K5525FRT.20	K5525FBL.20	K5525FGN.20	K5525FSW.20	K5525FWS.20
25,0 m	K5525FGR.25	K5525FGE.25	K5525FRT.25	K5525FBL.25	K5525FGN.25	K5525FSW.25	K5525FWS.25
30,0 m	K5525FGR.30	K5525FGE.30	K5525FRT.30	K5525FBL.30	K5525FGN.30	K5525FSW.30	K5525FWS.30



RJ45 Patch cable S/FTP, Cat.6A

The shielded Cat.6A RJ45 patch cable ensures excellent performance for **10 Gigabit** Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

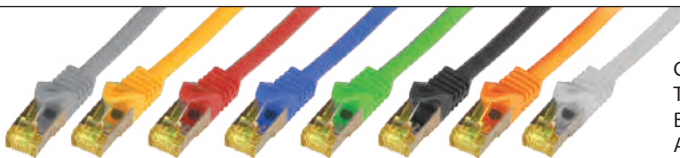
Length imprint on boot
Available in **11 colours**

Category:.....6A (TIA)
Transmission:10Gbit
Bandwidth:.....500MHz
Allocation:.....acc. to TIA/EIA 568B
Conductor material:.....Copper
Connector type:.....RJ45 Standard, IEC 60603-7-51
Contacts:.....Gold plated
Locking lever:.....yes
Cable type:.....S/FTP
Raw cable:.....Cat.6A
Falme retardant:.....yes
Halogen free:.....yes
Low smoke:.....yes
Jacket material:LSZH
Cable construction:.....4x2x27/7

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

Length-Variants Matrix

	grey	yellow	red	blue	green	black	orange	white	brown	magenta	violet
0,15 m	MK6001.0,15G	MK6001.0,15Y	MK6001.0,15R	MK6001.0,15BL	MK6001.0,15GR	MK6001.0,15B	MK6001.0,15O	MK6001.0,15W	MK6001.0,15BR	MK6001.0,15MA	MK6001.0,15VI
0,25 m	MK6001.0,25G	MK6001.0,25Y	MK6001.0,25R	MK6001.0,25BL	MK6001.0,25GR	MK6001.0,25B	MK6001.0,25O	MK6001.0,25W	MK6001.0,25BR	MK6001.0,25MA	MK6001.0,25VI
0,5 m	MK6001.0,5G	MK6001.0,5Y	MK6001.0,5R	MK6001.0,5BL	MK6001.0,5GR	MK6001.0,5B	MK6001.0,5O	MK6001.0,5W	MK6001.0,5BR	MK6001.0,5MA	MK6001.0,5VI
1,0 m	MK6001.1G	MK6001.1Y	MK6001.1R	MK6001.1BL	MK6001.1GR	MK6001.1B	MK6001.1O	MK6001.1W	MK6001.1BR	MK6001.1MA	MK6001.1VI
1,5 m	MK6001.1,5G	MK6001.1,5Y	MK6001.1,5R	MK6001.1,5BL	MK6001.1,5GR	MK6001.1,5B	MK6001.1,5O	MK6001.1,5W	MK6001.1,5BR	MK6001.1,5MA	MK6001.1,5VI
2,0 m	MK6001.2G	MK6001.2Y	MK6001.2R	MK6001.2BL	MK6001.2GR	MK6001.2B	MK6001.2O	MK6001.2W	MK6001.2BR	MK6001.2MA	MK6001.2VI
3,0 m	MK6001.3G	MK6001.3Y	MK6001.3R	MK6001.3BL	MK6001.3GR	MK6001.3B	MK6001.3O	MK6001.3W	MK6001.3BR	MK6001.3MA	MK6001.3VI
5,0 m	MK6001.5G	MK6001.5Y	MK6001.5R	MK6001.5BL	MK6001.5GR	MK6001.5B	MK6001.5O	MK6001.5W	MK6001.5BR	MK6001.5MA	MK6001.5VI
7,5 m	MK6001.7,5G	MK6001.7,5Y	MK6001.7,5R	MK6001.7,5BL	MK6001.7,5GR	MK6001.7,5B	MK6001.7,5O	MK6001.7,5W	MK6001.7,5BR	MK6001.7,5MA	MK6001.7,5VI
10,0 m	MK6001.10G	MK6001.10Y	MK6001.10R	MK6001.10BL	MK6001.10GR	MK6001.10B	MK6001.10O	MK6001.10W	MK6001.10BR	MK6001.10MA	MK6001.10VI
15,0 m	MK6001.15G	MK6001.15Y	MK6001.15R	MK6001.15BL	MK6001.15GR	MK6001.15B	MK6001.15O	MK6001.15W	MK6001.15BR	MK6001.15MA	MK6001.15VI
20,0 m	MK6001.20G	MK6001.20Y	MK6001.20R	MK6001.20BL	MK6001.20GR	MK6001.20B	MK6001.20O	MK6001.20W	MK6001.20BR	MK6001.20MA	MK6001.20VI
25,0 m	MK6001.25G	MK6001.25Y	MK6001.25R	MK6001.25BL	MK6001.25GR	MK6001.25B	MK6001.25O	MK6001.25W	MK6001.25BR	MK6001.25MA	MK6001.25VI
30,0 m	MK6001.30G	MK6001.30Y	MK6001.30R	MK6001.30BL	MK6001.30GR	MK6001.30B	MK6001.30O	MK6001.30W	MK6001.30BR	MK6001.30MA	MK6001.30VI
40,0 m	MK6001.40G	MK6001.40Y	MK6001.40R	MK6001.40BL	MK6001.40GR	MK6001.40B	MK6001.40O	MK6001.40W	MK6001.40BR	MK6001.40MA	MK6001.40VI
50,0 m	MK6001.50G	MK6001.50Y	MK6001.50R	MK6001.50BL	MK6001.50GR	MK6001.50B	MK6001.50O	MK6001.50W	MK6001.50BR	MK6001.50MA	MK6001.50VI



RJ45 Patch cable S/FTP, Cat.6A, LSZH, Cat.7 raw cable

The shielded Cat.6A RJ45 patch cable ensures excellent performance for **10 Gigabit** Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Length imprint on boot
Available in **8 colours**

Category:.....6A (TIA)
Transmission:10Gbit
Bandwidth:.....500MHz
Allocation:.....acc. to TIA/EIA 568B
Conductor material:.....Copper
Connector type:.....RJ45 Standard, IEC 60603-7-51
Contacts:.....Gold plated
Locking lever:.....yes
Cabletype:.....S/FTP
Raw cable:.....Cat.7
Falme retardant:.....acc. to IEC60332-1
Halogen free:.....acc. to IEC60754-2
Low smoke:.....acc. to IEC61034
Jacket material:LSZH
Cable construction:.....4x2x26/7

Stock length: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 m

Length-Variants Matrix

	grey	yellow	red	blue	green	black	orange	white
0,25 m	MK7001.0,25G	MK7001.0,25Y	MK7001.0,25R	MK7001.0,25BL	MK7001.0,25GR	MK7001.0,25B	MK7001.0,25O	MK7001.0,25W
0,5 m	MK7001.0,5G	MK7001.0,5Y	MK7001.0,5R	MK7001.0,5BL	MK7001.0,5GR	MK7001.0,5B	MK7001.0,5O	MK7001.0,5W
1,0 m	MK7001.1G	MK7001.1Y	MK7001.1R	MK7001.1BL	MK7001.1GR	MK7001.1B	MK7001.1O	MK7001.1W
1,5 m	MK7001.1,5G	MK7001.1,5Y	MK7001.1,5R	MK7001.1,5BL	MK7001.1,5GR	MK7001.1,5B	MK7001.1,5O	MK7001.1,5W
2,0 m	MK7001.2G	MK7001.2Y	MK7001.2R	MK7001.2BL	MK7001.2GR	MK7001.2B	MK7001.2O	MK7001.2W
3,0 m	MK7001.3G	MK7001.3Y	MK7001.3R	MK7001.3BL	MK7001.3GR	MK7001.3B	MK7001.3O	MK7001.3W
5,0 m	MK7001.5G	MK7001.5Y	MK7001.5R	MK7001.5BL	MK7001.5GR	MK7001.5B	MK7001.5O	MK7001.5W
7,5 m	MK7001.7,5G	MK7001.7,5Y	MK7001.7,5R	MK7001.7,5BL	MK7001.7,5GR	MK7001.7,5B	MK7001.7,5O	MK7001.7,5W
10,0 m	MK7001.10G	MK7001.10Y	MK7001.10R	MK7001.10BL	MK7001.10GR	MK7001.10B	MK7001.10O	MK7001.10W
15,0 m	MK7001.15G	MK7001.15Y	MK7001.15R	MK7001.15BL	MK7001.15GR	MK7001.15B	MK7001.15O	MK7001.15W
20,0 m	MK7001.20G	MK7001.20Y	MK7001.20R	MK7001.20BL	MK7001.20GR	MK7001.20B	MK7001.20O	MK7001.20W
25,0 m	MK7001.25G	MK7001.25Y	MK7001.25R	MK7001.25BL	MK7001.25GR	MK7001.25B	MK7001.25O	MK7001.25W
30,0 m	MK7001.30G	MK7001.30Y	MK7001.30R	MK7001.30BL	MK7001.30GR	MK7001.30B	MK7001.30O	MK7001.30W



RJ45 Patch cable S/FTP, Cat.6A, VC LED

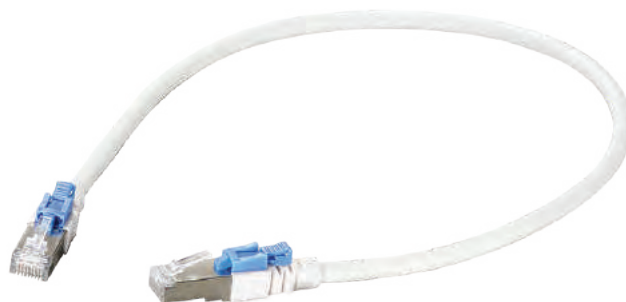
The shielded Cat.6A RJ45 patch cable provides excellent performance for **10 Gigabit Ethernet** applications. With the help of a detector (Art.-No. DC10001 oder DC10001USB) **light emitting diodes** are excited in both RJ45 plugs of the patch cable. The **illuminated RJ45 plugs** make it easy to **track the cable path**

Category:..... 6A (TIA)
 Transmission: 10Gbit
 Bandwidth:..... 500MHz
 Allocation:.....acc. to TIA/EIA 568B
 Conductor material:..... Copper
 Connector type: RJ45 LED, IEC 60603-7-51
 Contacts:..... Gold plated
 Locking lever:..... yes
 Cable type:..... S/FTP
 Flame retardant:.....acc. to IEC60332-3
 Halogen free:.....acc. to IEC60754-2
 Low smoke:.....acc. to IEC61034
 Jacket material:LSZH
 Cable construction:.....4x2x26/7
 Outer diameter of the cable: 6.2 mm

Stock length: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30 m

Length imprint on the grommet

Art.-No.	Colour outer sheath
DCK1001GR.x	grey



RJ45 Patch cable S/FTP,Cat.6A, 26AWG BC, LSZH, white, lockable (blue)

RJ45 patch cord S/FTP, Cat.6A, 26AWG BC, LSZH, white, lockable with two RJ45 plugs according to EN 60603-7-51, Cat.6A, with blue lock to prevent unauthorised or unintentional disconnection and lockable, sheath colour white, sheath material LSZH, Cat.7 raw cable with pure copper. The patch cables meet the valid channel requirements for 10GBase-T transmissions in a cabling link.

Category:..... 6A (TIA)
 Transmission: 10Gbit;2,5Gbit;5Gbit
 Bandwidth:..... 500MHz
 Allocation:.....acc. to TIA/EIA 568B
 Conductor material:..... Copper
 Connector type: RJ45 Standard, IEC 60603-7-51
 Contacts:..... 50 µ" Gold plated
 Locking lever:..... no
 Cable type:..... S/FTP
 Raw cable: Cat.7
 Flame retardant:.....acc. to IEC60332-1
 Halogen free:.....acc. to IEC60754-2
 Low smoke:.....acc. to IEC61034
 Jacket Material:..... LSZH
 Cable construction:.....4x2x26/7

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 m

Delivery without keys

accessory

Art.-No.	Description
K5539.S	Key for K5539.x blue

Art.-No.	Colour outer sheath
K5539WS.x	white



RJ45 patch cable extension Cat.6A, S/FTP, AWG26

Shielded RJ45 patch cable extension Cat.6A for transmissions according to ISO11801 for up to 10Gbit/s.

You have already installed a patch cable in your study/office. Previously, the cable was sufficient up to your device, but now that the office has been remodelled, it is no longer sufficient. Instead of replacing the entire patch cable because it has been laid at great expense, simply connect the RJ45 patch cable extension in the length that suits you to your end device.

In addition, the short version of the patch cable extension can be used to protect your device connections. Especially in the home office, with a lot of assembly and disassembly of the e.g. notebook, the socket of the notebook is heavily stressed. This can be circumvented by „interposing“ the patch cable extension, because here you are then stressing the socket of the extension.

The RJ45 patch cable extension Cat.6A can be used with any conventional devices with RJ45 interface, such as computers, notebooks, DSL modems, routers, switches, game consoles, televisions and many more.

Category:6A (TIA)
 Transmission:10Gbit;2.5Gbit;5Gbit
 Bandwidth:.....500MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:.....Copper
 Connector type:RJ45 Standard, IEC 60603-7-51
 Contacts:.....3 µ" gold plated
 Locking lever:.....True
 Cable type:S/FTP
 Raw cable:Cat.6A
 Jacket material:LSZH
 Cable construction:.....4x2x26/7
 Outer diameter of the cable: 6.2 mm
 Anti-kink sleeve:.....moulded

Stock Lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Colour outer sheath
K5546SW.x	black
K5546WS.x	white



RJ45 Patch cable S/FTP, Cat.6A, LSZH, one side 90° angled

The shielded Cat.6A RJ45 patch cable with ensures excellent performance for **10 Gigabit** Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions. In addition, one side of the patch cord has a 90° angle, which makes patching even easier.

Length imprint on boot

Stock Lengths: 0,25 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 m

Art.-No.	Colour outer sheath
MK6001W.xB	black
MK6001w.xG	grey

Category:6A (TIA)
 Transmission:10Gbit;2.5Gbit;5Gbit
 Bandwidth:.....500MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:.....Copper
 Connector type:RJ45 Standard, IEC 60603-7-51
 Contacts:.....Gold plated
 Locking lever:.....True
 Cable type:S/FTP
 Raw cable:Cat.6A
 Flame-retardant:.....yes
 Halogen free:.....yes
 Low smoke:.....yes
 Jacket material:LSZH
 Cable construction:.....4x2x27/7



RJ45 Flat patch cable U/FTP, Cat.6A, PVC

The pair-shielded Cat.6A RJ45 **flat patch cable** ensures excellent performance for **10 Gigabit Ethernet** applications. The flat patch cable impresses with its flat construction and is with **2.2mm height ideal for laying e.g. behind ledges or under a carpet**. The cast grommet captivates with its **slim design** and thus simplifies the plugging process in confined spaces.

Plug type: **short plug**

Category:.....6A (TIA)
 Bandwidth:.....500MHz
 Allocation:.....acc. TIA/EIA 568B
 Conductor Material:.....Copper
 Connector type:.....RJ45 short version, IEC 60603-7-51
 Contacts:.....Gold plated
 Locking lever:.....yes
 Cable type:.....U/FTP
 Jacket material:.....PVC
 Cable construction:.....4x2x30/7
 Outer diameter of the cable: 7.0*2.2 mm
 Anti-kink sleeve:.....moulded

Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 m

Art.-No.	Colour outer sheath
K5545GR.x	grey
K5545GE.x	yellow
K5545RT.x	red
K5545BL.x	blue
K5545GN.x	green
K5545SW.x	black
K5545WS.x	white



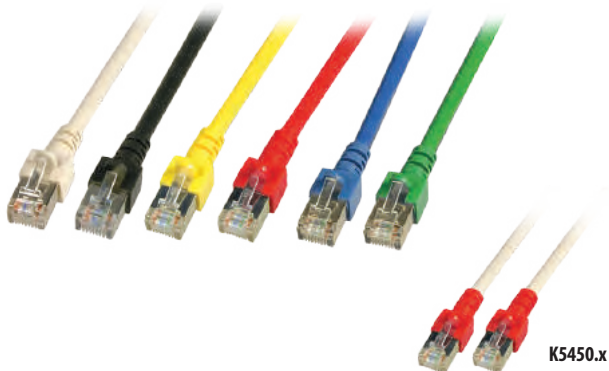
RJ45 Patch cable U/FTP, Cat.6A, Rawcable TPE, 4,0mm ultraflex

The shielded Cat.6A RJ45 patch cable ensures excellent performance for **10 Gigabit Ethernet** applications. The **TPE** outer sheath makes the cable **highly flexible** and thus easier to handle. The moulded grommet captivates with its **slim design** and simplifies the plugging process in cramped conditions. The **short connector** in combination with the **thin outer jacket** enables a very **high packing density**.

Category:.....6A (TIA)
 Bandwidth:.....500MHz
 Allocation:.....acc. TIA/EIA 568B
 Conductor Material:.....Copper
 Connector type:.....RJ45 short version, IEC 60603-7-51
 Contacts:.....Gold plated
 Locking lever:.....yes
 Cable type:.....U/FTP
 Low smoke:.....Yes
 Jacket material:.....TPE/LSZH
 Cable construction:.....4x2x30/7
 Outer diameter of the cable: 4.0 mm
 Anti-kink sleeve:.....moulded

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Art.-No.	Colour outer sheath
K5547SW.x	black
K5547WS.x	white



RJ45 Patch cable SF/UTP, Cat.5e, PVC, CCA

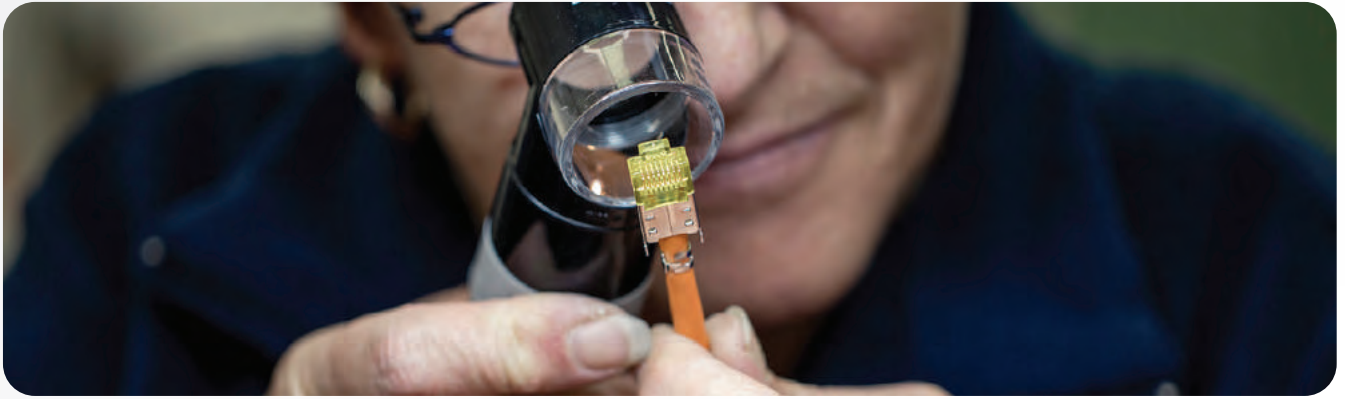
The Cat.5e RJ45 **patch cable** ensures very good characteristics for 2.5 Gigabit Ethernet applications. Due to the **double shielding**, the patch cable is even **better protected against EMC radiation**.

Cast anti-kink grommet (**patented**)
Length imprint on the grommet

Category:.....5E
 Conductor Material:.....CCA
 Connector type:.....RJ45 Standard,
 Contacts:.....Gold plated
 Locking lever:.....True
 Cable type:.....SF/UTP
 Jacket material:.....PVC
 Cable construction:.....4x2x26/7
 Outer diameter of the cable: 5.7 mm
 Anti-kink sleeve:.....plugged in

Stock Lengths: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 m

Art.-No.	Colour outer sheath	Allocation
K5455.x	grey	TIA568B
K5457.x	yellow	TIA568B
K5458.x	red	TIA568B
K5459.x	blue	TIA568B
K5460.x	green	TIA568B
K5456.x	black	TIA568B
K5450.x	grey	1-3, 2-6, 3-1, 4-7, 5-8, 6-2, 7-4, 8-5

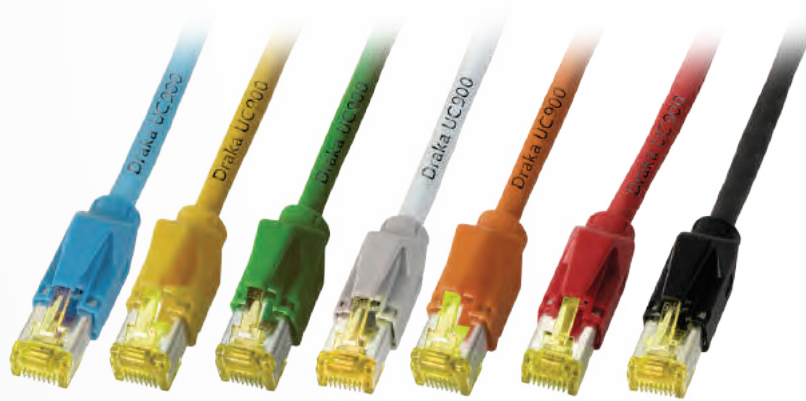


The Cat.6A RJ45 patch cable **manufactured in Europe** guarantees very good characteristics for **10 Gigabit** Ethernet applications. The patch cables are assembled from high quality Hirose connectors in combination with raw cables from renowned European manufacturers.


Allocation: acc. to TIA/EIA 568B
 Contacts: Gold plated
 Locking lever: yes

FEATURES OF PATCH CABLE

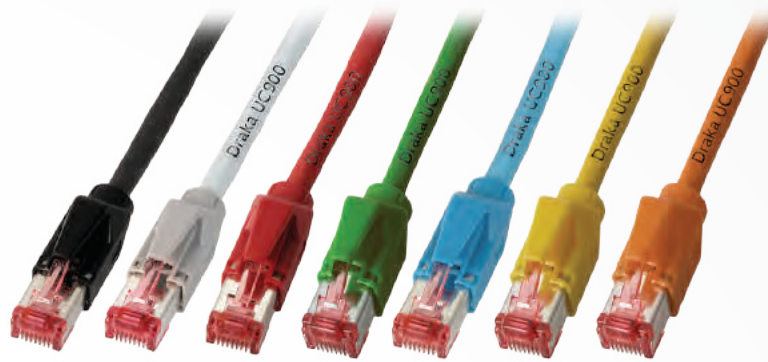
Type designation	Art.-No.	Category	Jacket	AWG/Conductor	Ø in mm	Euroclass	Cable construction	Max. Frequency
Draka UC900 SS27	9970x.x	7	FRNC-B	27/7/ Cu, tinned	5.9	Eca	S/FTP	1000 MHz
Leoni-Kerpen F6-90S/F	9962x.x	7	FRNC-B	27/7/Cu, blank	5.7	Dca	S/FTP	900 MHz
Dätwyler CU 7702 flex	9871x.x	7	FRNC-C	26/7/Cu, blank	5.8		S/FTP	1000 MHz
Dätwyler CU 5502 flex	9870x.x	5e	PVC	26/7/ Cu, tinned	5.1		S/UTP	300 MHz
Draka UC300 HS26	9925x.x	5e	FRNC-B	26/7/ Cu, tinned	5.7		SF/UTP	300 MHz
Draka UC300 S26	9915x.x	5e	FRNC-B	26/7/ Cu, tinned	5.0		F/UTP	300 MHz



RJ45 Patch cable S/FTP, Cat.6A, TM31

 Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

Art.-No. Draka UC900	Art.-No. Dätwyler CU 7702 flex	Colour outer sheath
K8560BL.x	K8580BL.x	blue
K8560GE.x	K8580GE.x	yellow
K8560GN.x	K8580GN.x	green
K8560GR.x	K8580GR.x	grey
K8560OR.x		orange
K8560RT.x	K8580RT.x	red
K8560SW.x	K8580SW.x	black
K8560WS.x		white



K4137BL.x



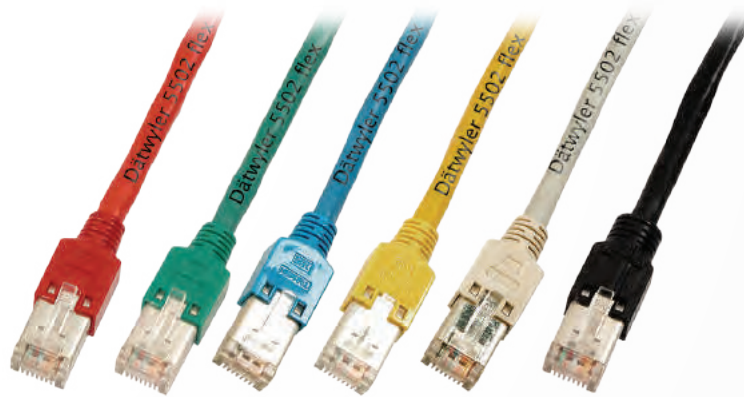
DATWYLER



RJ45 Patch cable S/FTP, Cat.6A, TM21

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

Art.-No. Draka UC900	Art.-No. Draka UC900 2xTM21 90°	Art.-No. Leoni-Kerpen F6-90S/F	Art.-No. Dätwyler CU 7702 flex	Colour outer sheath
K8050.x	K4137SW.x		K8708SW.x	black
K8051.x	K4137GR.x	K8210GR.x	K8708GR.x	grey
K8052.x	K4137RT.x	K8210RT.x	K8708RT.x	red
K8053.x	K4137GN.x	K8210GN.x	K8708GN.x	green
K8054.x	K4137BL.x	K8210BL.x	K8708BL.x	blue
K8055.x	K4137GE.x	K8210GE.x	K8708GE.x	yellow
K8056.x	K4137OR.x		K8708OR.x	orange
K8058.x	K4137WS.x			white



K0993.x



DATWYLER



RJ45 Patch cable, Cat.5e, TM11

Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m
 Stock length K2793.x: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No. Draka UC300 SF/UTP	Art.-No. Draka UC300 F/UTP	Art.-No. Dätwyler CU 5502 flex	Colour outer sheath
K8012.x	K8076.x	K8703.x	red
K8013.x	K8073.x	K8706.x	green
K8014.x	K8074.x	K8704.x	blue
K8015.x	K8075.x	K8702.x	yellow
K8017.x	K8452.x	K8701.x	grey
	K8072.x	K8705.x	black
K2793.x / Crossed pinning			red
		K0993.x / 1x 90° TM11	black

Art.-No.:	Category/Bandwidth	Unshielded AWG	Boot / Length Imprint	Jacket	Cable diameter	Gigabit Ethernet	2,5 Gigabit Ethernet	5 Gigabit Ethernet	10 Gigabit Ethernet	Flexibility	Clip Pre-dection	Conductor	Plug	Temperature Range
K8097.x	Cat.5e / 100MHz	U/UTP AWG24/7	red moulded / yes	PVC gray	5,4 mm	X	X			usual	no	CCA	RJ45 standard	0°C - +60°C
K809x.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded / yes	PVC coloured	5,4 mm	X	X			usual	no	CCA	RJ45 standard	0°C - +60°C
K8100xx.x	Cat.6 / 250MHz	U/UTP AWG24/7	moulded / yes	PVC coloured	5,9 mm	X	X	X		usual	no	CCA	RJ45 standard	0°C - +60°C
K8109xx.x	Cat.6A / 500MHz	U/UTP AWG24/7	moulded / yes	LSZH coloured	6,0 mm	X	X	X	X	usual	yes	100% copper	RJ45 blue	0°C - +60°C
K8104xx.x	Cat.6 / 250MHz	U/UTP AWG24/7	moulded / yes	LSZH coloured	5,9 mm	X	X	X		usual	yes	CCA	RJ45 standard	0°C - +60°C
K8107xx.x	Cat.6A / 500MHz	U/UTP AWG30/7	moulded / no	PVC coloured	6,0 x 1,6 mm	X	X	X	X	very good	yes	100% copper	RJ45 ultra short	-20°C - +55°C
K8108xx.x	Cat.6A / 500MHz	U/UTP AWG30/7	moulded / yes	TPE coloured	3,6 mm	X	X	X	X	ultraflex	yes	100% copper	RJ45 ultra short	-20°C - +75°C
K8110xx.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded / yes	LSZH coloured	5,4 mm	X	X			usual	yes	CCA	RJ45 standard	0°C - +60°C
K8456.x	Cat.5e / 100MHz	U/UTP AWG24/7	moulded / yes	PVC gray	5,4 mm	X	X			usual	no	CCA	RJ45 standard	0°C - +60°C




RJ45 Patch cable U/UTP, Cat.6A, LSZH, Premium, 500MHz

The unshielded Cat.6A RJ45 premium patch cable ensures very good characteristics for **10 Gigabit Ethernet** applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Cast anti-kink grommet with length imprint, slim design

Category: 6A (TIA)
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Allocation: acc. TIA/EIA 568B
 Conductor Material: Copper
 Connector type: RJ45 Standard, IEC 60603-7-41
 Contacts: 50 µ" gold plated
 Locking lever: yes
 Cable type: U/UTP
 Flame-retardant: acc. IEC60332-1
 Halogen free: yes
 Low smoke: yes
 Jacket material: LSZH
 Cable construction: 4x2x24/7
 Outer diameter of the cable: 6.0 mm

 Stock length: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 m

Art.-No.	Colour outer sheath
K8109BL.x	blue
K8109GE.x	yellow
K8109GN.x	green
K8109GR.x	grey
K8109RT.x	red
K8109SW.x	black
K8109WS.x	white

Length-Variants Matrix							
	grey	yellow	red	blue	green	black	white
0,15 m	K8109GR.0,15	K8109GE.0,15	K8109RT.0,15	K8109BL.0,15	K8109GN.0,15	K8109SW.0,15	K8109WS.0,15
0,25 m	K8109GR.0,25	K8109GE.0,25	K8109RT.0,25	K8109BL.0,25	K8109GN.0,25	K8109SW.0,25	K8109WS.0,25
0,5 m	K8109GR.0,5	K8109GE.0,5	K8109RT.0,5	K8109BL.0,5	K8109GN.0,5	K8109SW.0,5	K8109WS.0,5
1,0 m	K8109GR.1	K8109GE.1	K8109RT.1	K8109BL.1	K8109GN.1	K8109SW.1	K8109WS.1
1,5 m	K8109GR.1,5	K8109GE.1,5	K8109RT.1,5	K8109BL.1,5	K8109GN.1,5	K8109SW.1,5	K8109WS.1,5
2,0 m	K8109GR.2	K8109GE.2	K8109RT.2	K8109BL.2	K8109GN.2	K8109SW.2	K8109WS.2
3,0 m	K8109GR.3	K8109GE.3	K8109RT.3	K8109BL.3	K8109GN.3	K8109SW.3	K8109WS.3
5,0 m	K8109GR.5	K8109GE.5	K8109RT.5	K8109BL.5	K8109GN.5	K8109SW.5	K8109WS.5
7,5 m	K8109GR.7,5	K8109GE.7,5	K8109RT.7,5	K8109BL.7,5	K8109GN.7,5	K8109SW.7,5	K8109WS.7,5
10,0 m	K8109GR.10	K8109GE.10	K8109RT.10	K8109BL.10	K8109GN.10	K8109SW.10	K8109WS.10
15,0 m	K8109GR.15	K8109GE.15	K8109RT.15	K8109BL.15	K8109GN.15	K8109SW.15	K8109WS.15



RJ45 Flat Patch cable U/UTP, Cat.6A, PVC

The unshielded Cat.6A RJ45 **flat patch cable** ensures excellent performance for **10 Gigabit Ethernet** applications. The flat patch cable impresses with its flat construction and is with **1.6mm height ideal for laying e.g. behind ledges or under a carpet**. The cast grommet captivates with its **slim design** and thus simplifies the plugging process in confined spaces.

Cable diameter: **6.0 x 1.6 mm**
 Plug type: **short plug**

Category:6A (TIA)
 Bandwidth:500MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:Copper
 Connector type:RJ45 short version, IEC 60603-7-51
 Contacts:3 μ" gold plated
 Locking lever:Yes
 Cable type:U/UTP
 Jacket material:PVC
 Cable construction:4x2x30/7

Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 m



Art.-No.	Colour outer sheath
K8107SW.x	black
K8107WS.x	white



RJ45 Patch cable U/UTP, Cat.6A, Raw cable TPE, 3,6mm ultraflex

The shielded Cat.6A RJ45 patch cable ensures excellent performance for **10 Gigabit Ethernet** applications. The **TPE** outer sheath makes the cable **highly flexible** and thus easier to handle. The moulded grommet captivates with its **slim design** and simplifies the plugging process in cramped conditions. The **short connector** in combination with the **thin outer jacket** enables a very **high packing density**.

Cross section: 4 x 2 x **AWG30/7**
 Cable diameter: **3.6 mm**

Category:6A (TIA)
 Bandwidth:500MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:Copper
 Connector type:RJ45 short version, IEC 60603-7-41
 Contacts:3 μ" gold plated
 Locking lever:Yes
 Cable type:U/UTP
 Low smoke:Yes
 Jacket material:TPE/LSZH

Stock Lengths: 0,15 - 0,25 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m



Art.-No.	Colour outer sheath
K8108SW.x	black
K8108WS.x	white



RJ45 Patch cable U/UTP, Cat.6, PVC, CCA

The unshielded Cat.6 RJ45 patch cable with ensures excellent performance for 5 Gigabit Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Cross section 4 x 2 x **AWG24/7**
 Moulded grommet, slim design
Length imprint on the boot

Category:6
 Transmission:5Gbit
 Bandwidth:250MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:CCA
 Connector type:RJ45 Standard, IEC 60603-7-4
 Contacts:3 μ" gold plated
 Locking lever:No
 Cable type:U/UTP
 Jacket material:PVC

Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30



Art.-No.	Colour outer sheath
K8100GR.x	grey
K8100GE.x	yellow
K8100RT.x	red
K8100BL.x	blue
K8100GN.x	green
K8100SW.x	black
K8100OR.x	orange
K8100WS.x	white
K8100MA.x	magenta



RJ45 Patch cable U/UTP, Cat.6, LSZH, CCA

The unshielded Cat.6 RJ45 patch cable with ensures excellent performance for 5 Gigabit Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Cross section 4 x 2 x **AWG24/7**
Moulded grommet, slim design
Length imprint on the boot

Category: 6
Transmission: 5Gbit
Bandwidth: 250MHz
Allocation: acc. TIA/EIA 568B
Conductor Material: CCA
Connector type: RJ45 Standard, IEC 60603-7-4
Contacts: 3 μ" gold plated
Locking lever: yes
Cable type: U/UTP
Flame-retardant: yes

Stock Lengths: 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Art.-No.	Colour outer sheath
K8104GR.x	grey
K8104GE.x	yellow
K8104RT.x	red
K8104BL.x	blue
K8104GN.x	green
K8104SW.x	black
K8104WS.x	white



RJ45 Patch cable U/UTP, Cat.5e, PVC, CCA

The unshielded Cat.5e RJ45 patch cable with ensures excellent performance for 2.5 Gigabit Ethernet applications. The moulded grommet captivates with its **slim design** and thus simplifies the insertion process in cramped conditions.

Cross section 4 x 2 x **AWG24/7**
Moulded grommet, slim design
Length imprint on the boot

Category: 5e
Transmission: 2.5Gbit
Bandwidth: 100MHz
Allocation: acc. TIA/EIA 568B
Conductor Material: CCA
Connector type: RJ45 Standard, IEC 60603-7-2
Contacts: 3 μ" gold plated
Locking lever: No
Cable type: U/UTP
Jacket material: PVC

Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 30 m

Art.-No.	Colour outer sheath
K8456.x	grey
K8095.x	yellow
K8096.x	red
K8094.x	blue
K8093.x	green
K8098.x	black
K8099.x	orange
K8092.x	white
K8091.x	magenta



RJ45 Patch cable Cat.5e U/UTP LSZH

Cable description:
U/UTP Cat.5e AWG24/7 stranded 4 pairs cable
Jacket: LSZH, low smoke & Halogenfree
OD: 5,4mm

RJ45 Connector:
2 x Cat.5e RJ45 plugs 1:1 IEC60603-7
Moulded strain relief with bend and latch protection
3um gold plated contacts

Application:
ISO IEC 11801, EIA/TIA 568

Contacts: 3 μ" gold plated
Locking lever: Yes
Cable type: U/UTP

Stock Lengths: 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 50 m

Art.-No.	Colour outer sheath
K8110GR.x	grey
K8110GE.x	yellow
K8110RT.x	red
K8110BL.x	blue
K8110GN.x	green
K8110WS.x	white

Art.-No.:	Category / Bandwidth	Shielding/ AWG	Boot / Length Imprint	Jacket	Cable Diameter	Gigabit Ethernet	2.5 Gigabit Ethernet	5 Gigabit Ethernet	10 Gigabit Ethernet	Flexibility	Conductive Shield	Rawcable acc. to Cat.7	Conductor	Plug	IP Protection	Temperature Range	UL Ap-probiert	Exceptional Features
K2460.x	Cat.6 / 250MHz	S/FTP AWG26/7	moulded / no	FR-PVC black	6.2 mm	X	X	X		usual	selected shield contact	yes	100% copper	RJ45 ultra short	IP20	-10°C - +75°C	yes	VOIP use favored
K3130.x	Cat.6A / 500MHz	S/FTP AWG26/7	mounted / no	PUR red	6.4 mm	X	X	X	X	superflex	RJ45 with 360° shield contact	yes	100% copper	TM31 HIROSE	IP20	-40°C - +70°C	no	Superflex, UV-resistant, outdoor, temperature stable, Made in Europe, EMC safe, TM31
K5530.x	Cat.5e / 100MHz	S/UTP AWG26/7	moulded / no	PUR RAL6018 green	6.2 mm	X	X			superflex	RJ45 with 360° shield contact	no	100% copper	RJ45 standard	IP20	-40°C - +80°C	no	EtherCat, temperature stable
K5535xx.x	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / no	FR-PVC gray	6.2 mm	X	X	X	X	usual	selected shield contact	yes	100% copper	RJ45 standard	IP20	-10°C - +75°C	yes	100% test, single test protocol
K5537xx.x	Cat.6A / 500MHz	S/FTP AWG24/7	moulded / no	FR-PVC gray	6.8 mm	X	X	X	X	usual	RJ45 with 360° shield contact	yes	100% copper	RJ45 special	IP20	-10°C - +75°C	yes	Longlink up to 90m
K5538xx.x	Cat.6A / 500MHz	S/FTP AWG26/7	moulded / no	TPE black	6.2 mm	X	X	X	X	superflex	RJ45 with 360° shield contact	yes	100% copper	RJ45 special	IP20	-40°C - +80°C	no	Superflex, UV-resistant, temperature stable
K8032.x	Cat.5e / 100MHz	S/UTP AWG26/19	mounted / no	PUR RAL1021 yellow	6.9 mm	X	X			extremely good / drag chain	RJ45 with 360° shield contact	no	100% copper	TM21 HIROSE	IP20	-40°C - +85°C	no	Extremely flexible, dragline capable, oil-resistant, Made in Europe, EMC safe, TM21
K8048PUix	Cat.6A / 500MHz	S/FTP AWG27/7	mounted / no	PUR red	5.9 mm	X	X	X	X	superflex	RJ45 with 360° shield contact	yes	100% copper	TM21 HIROSE	IP20	-35°C - +75°C	no	Superflex, oil-and UV-resistant, Made in Europe, EMC safe, TM21
K8670.x	Cat.6A / 500MHz	S/FTP AWG27/7	IP20 + IP67 mounted / no	PUR red	5.9 mm	X	X	X	X	superflex	RJ45 with 360° shield contact	yes	100% copper	TM21 HIROSE	IP20 + IP67	-35°C - +75°C	no	Superflex, oil-and UV-resistant, Made in Europe, EMC safe, TM21 + TM21 IP67
K8035ix	Cat.5e / 100MHz	S/FTP AWG26/19	mounted / no	PUR yellow	6.6 mm	x	x			extremely good / drag chain	RJ45 with 360° shield contact	no	100% copper	TM21 HIROSE	IP20	-40°C - +80°C	yes	Extremely flexible, dragline capable, oil-resistant, Made in Europe, EMC safe, TM21
K8030.x	Cat.5e / 100MHz	S/FTP AWG26/19	mounted / no	PUR green	6.6 mm	x	x			extremely good / drag chain	RJ45 with 360° shield contact	no	100% copper	TM21 HIROSE	IP20	-40°C - +80°C	yes	Extremely flexible, dragline capable, oil-resistant, Made in Europe, EMC safe, TM21



RJ45 Patch cable S/FTP, Cat.6A, PUR, Cat.7 raw cable, TM31

The Cat.6A RJ45 patch cable **manufactured in Europe** guarantees very good characteristics for **10 Gigabit** Ethernet applications. The patch cable is composed of the Cat.7 raw cable **Patch Pro flex Cat 7** from Draka and **TM31** connectors from Hirose. Due to the **PUR** outer sheath, the patch cable is also **suitable for outdoor use** (except for direct burial).

Cross section 4 x 2 x AWG26/7
Mounted anti-kink grommet

Category: 6A (TIA)
Transmission: 10Gbit
Bandwidth: 500MHz
Allocation: nach TIA/EIA 568B
Conductor material: Copper
Connector type: TM31, IEC 60603-7-51
Contacts: gold plated
Locking lever: yes
Cable type: S/FTP
Raw cable: Cat.7

Art.-No.	Colour outer sheath
K3130.x	black

Stock length: 0,3 - 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 30 - 50 m



RJ45 Patch cable S/FTP, Cat.6A, TM21, UC900, PUR

The Cat.6A RJ45 patch cable **manufactured in Europe** guarantees very good characteristics for **10 Gigabit** Ethernet applications. The patch cable is composed of the Cat.7 raw cable **UC900 SS27 Cat.7 PUR** from Draka and **TM21** connectors from Hirose. Due to the **highly abrasion-resistant PUR** outer sheath, the cable is **resistant to mineral oil and ASTM oil**.

Cross section 4 x 2 x AWG27/7
Mounted anti-kink grommet
Temperature range **-35°C ~ +75°C**

Category: 6A (IEC)
Transmission: 10Gbit
Bandwidth: 500MHz
Allocation: acc. to TIA/EIA 568B
Conductor material: Copper
Connector type: TM21, IEC 60603-7-51
Contacts: gold plated
Locking lever: yes
Cable type: S/FTP
Raw cable: Cat.7

Art.-No.	Colour outer sheath
K8048PUlx	red
K8670.x	red

Stock length: 1,0 - 2,0 - 3,0 - 5,0 m



RJ45 Patch cable S/FTP, Cat.6A, TPE

The shielded Cat.6A RJ45 patch cable provides excellent performance for **10 Gigabit** Ethernet applications. The **TPE** outer sheath makes the cable **highly flexible** and therefore easier to handle. In addition, the patch cable is suitable for temperature ranges from **-40°C to +80°C**. The cast grommet captivates with its **slim design** and thus simplifies the plugging process in confined spaces.

Very flexible TPE/LSZH jacket superflex
Cross section 4 x 2 x AWG26/7
UV resistance
Cast anti-kink grommet, slim design
Temperature range **-40°C ~ +80°C**

Category: 6A (TIA)
Transmission: 10Gbit
Bandwidth: 500MHz
Allocation: acc. to TIA/EIA 568B
Conductor material: Copper
Connector type: RJ45 Standard, IEC 60603-7-51
Contacts: 50 µ" gold plated
Locking lever: yes
Cable type: S/FTP
Flame retardant: yes

Art.-No.	Colour outer sheath
K5538SW.x	black

Stock length: 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m



RJ45 Patch cable S/FTP, Cat.6A, PVC, UL

The **UL approved** and shielded Cat.6A RJ45 patch cable ensures very good characteristics for **10 Gigabit** Ethernet applications. The cast grommet impresses with its **slim design** and simplifies the plugging process in confined spaces.

Cross section 4 x 2 x AWG26/7
 Jacket material PVC
 Cast anti-kink grommet, slim design

Category:6A (TIA)
 Transmission:10Gbit
 Bandwidth:500MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:Copper
 Connector type:RJ45 Standard, IEC 60603-7-51
 Contacts:50 µ" gold plated
 Locking lever:yes
 Cable type:S/FTP
 Jacket material:PVC

Stock length: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 10 - 20 - 30 m

Art.-No.	Colour outer sheath
K5535GR.x	grey



RJ45 Patch cable S/FTP, Cat.6A, PVC, UL, Longlink

The **UL approved** and shielded Cat.6A RJ45 patch cable ensures very good characteristics for **10 Gigabit** Ethernet applications and is specially designed for **Longlink** applications up to **90m**. Due to the stranded construction, the cable offers several advantages compared to installation cables with field-attachable RJ45 connectors: The patch cable is **more flexible**, has a **smaller bending radius** and is already **pre-assembled**. The cast grommet impresses with its **slim design** and thus simplifies the plugging process in confined spaces.

Cat.6A (TIA) patch cable lengths: Up to 90 m
 Class EA (ISO) Patch cable lengths: Up to 80 m
 Cross section 4 x 2 x AWG24/7
 Cast anti-kink grommet, slim design

Category:6A (TIA)
 Transmission:10Gbit
 Bandwidth:500MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:Copper
 Connector type:RJ45 Standard, IEC 60603-7-51
 Contacts:50 µ" gold plated
 Locking lever:yes
 Cable type:S/FTP
 Jacket material:PVC

Stock Lengths: 20 - 30 - 40 - 50 - 60 - 70 - 80 - 90 m

Art.-No.	Colour outer sheath
K5537GR.x	grey



RJ45 Patch cable S/FTP, Cat.6, PVC, short boot, UL

The **UL approved** and shielded Cat.6 RJ45 patch cable ensures very good characteristics for 5 Gigabit Ethernet and **VOIP** applications. The connector is **extremely short** with its **27.3 mm** including bend protection. The cast grommet impresses with its **slim design** and simplifies the plugging process in confined spaces.

Cross section 4 x 2 x AWG26/7
 Plug **extremely short (27.3 mm incl. bend protection)**
 Cast anti-kink grommet, slim design

Category:6
 Transmission:2.5Gbit
 Bandwidth:250MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:Copper
 Connector type:RJ45 Standard, IEC 60603-7-5
 Contacts:50 µ" gold plated
 Locking lever:yes
 Cable type:S/FTP
 Jacket material:PVC

Stock Lengths: 1,0 - 2,0 - 3,0 - 6,0 - 10 m

Art.-No.	Colour outer sheath
K2460.x	black





RJ45 Patch cable S/UTP, Cat.5e, PUR Superflex drag chain suitable

The Cat.5e RJ45 patch cable **manufactured in Europe** guarantees very good characteristics for 2.5 Gigabit Ethernet applications. The patch cable is composed of the raw cable and **TM21** connectors from Hirose. Due to the strand construction **AWG26/19** and the **very flexible PUR sheath** the cable is **suitable for applications in drag chains**.

Very flexible **PUR** sheath superflex (RAL1021)
 Alternating bending test (with load): according to VDE0472 part 603
Suitable for drag chains, typical 5 million cycles
Oil resistance according to EN60811-2-1
Ozone resistance according to EN60811

Category:5e
 Transmission:2.5Gbit
 Bandwidth: 100MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:Copper
 Connector type:TM21, IEC 60603-7-3
 Contacts:1.27 μ" gold plated
 Locking lever:yes
 Cable type:S/UTP
 Flame-retardant:acc. IEC60332-1

Stock Lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 - 15 - 20 - 25 - 30 - 40 m

Art.-No.	Colour outer sheath	Cable type
K8032.1	yellow	Leoni Kerpen
K8030.x	Green	Helu
K8035lx	Yellow	Helu



RJ45 Patch cable SF/UTP, Cat.5e, PUR, RAL6018

The **double shielded** Cat.5e RJ45 patch cable provides excellent performance for 2.5 Gigabit Ethernet and **EtherCat** applications. It is also suitable for temperature ranges from **-40°C to +80°C**. The cast grommet captivates with its **slim design** and simplifies the plugging process in confined spaces.

Very flexible **PUR** jacket superflex (**RAL6018**)
 Cross section 4 x 2 x AWG26/7
 Cast anti-kink grommet, slim design
 Temperature range **-40°C ~ +80°C**

Category:5E
 Transmission:2.5Gbit
 Bandwidth: 100MHz
 Allocation:acc. TIA/EIA 568B
 Conductor Material:Copper
 Connector type:RJ45 Standard, IEC 60603-7-3
 Contacts:50 μ" gold plated
 Locking lever:yes
 Cable type:SF / UTP
 Jacket material:PUR

Stock Lengths: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 m

Art.-No.	Colour outer sheath
K5530.x	green

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PATCHPANEL & DATA OUTLETS //



Patchpanel

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Installation Cable

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Patch Cable

P. 130

19" Network Cabinets

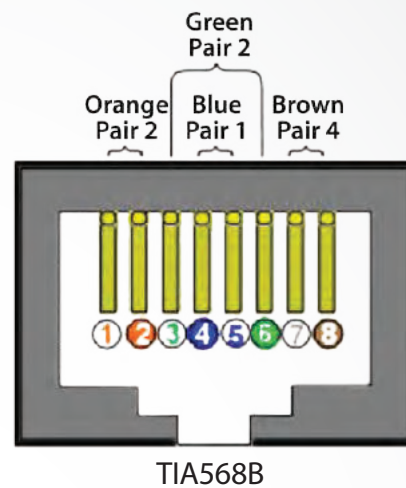
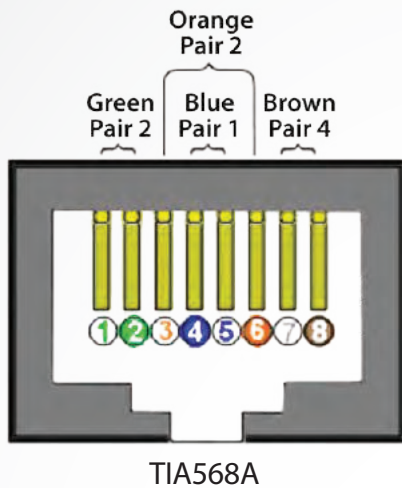
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Tools & Measurement Equipment

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ASSIGNMENT FOR RJ 45 JACKS ACCORDING TO TIA/EIA 568



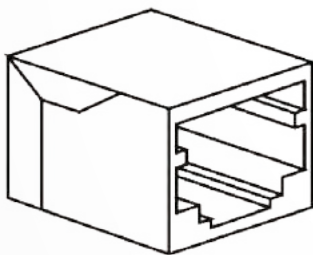
Assignment for LSA terminal blocks according to TIA/EIA 568



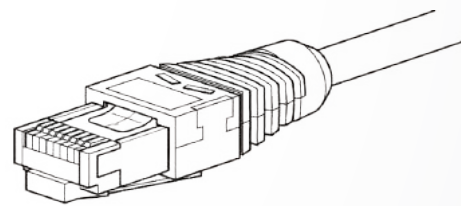
TIA568A (right colour bar)



TIA568B (left colour bar)



Jack (fixed connector)



Connector (free connector)

RJ 45 acc. to IEC 60603-7-x

IEC 60603-7-1	General information		
	Frequency	Category	Shielding
IEC 60603-7-2	100 MHz	Cat.5	unscreened
IEC 60603-7-3	100 MHz	Cat.5	screened
IEC 60603-7-4	250 MHz	Cat.6	unscreened
IEC 60603-7-41	500 MHz	Cat.6 _A	unscreened
IEC60603-7-5	250 MHz	Cat.6	screened
IEC60603-7-51	500 MHz	Cat.6 _A	screened
IEC60603-7-7	600 MHz	Cat.7	screened
IEC60603-7-71	1000 MHz	Cat.7 _A	screened
IEC60603-7-81	2000 MHz	Cat.8 CLASS I	screened



Patchpanel STP 24xRJ45, 19" 1U

Special features

Number of height units: 1
Cover: with clip closure

General specifications

Cross section: AWG24..AWG22
Connection type: LSA terminal
Colour code: according to TIA/EIA 568A/B
Contacts: gold plated
Ground terminal

Dimensions:.....44.00 x 483.00 x 108.00 mm
Temperature range (Storage): -40 – 85 °C
Temperature range (Operation): 0 – 70 °C

Art.-No.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37666.1M	6A (TIA)	24	grey	10 Gbit	500 MHz
37666SW.1M	6A (TIA)	24	black	10 Gbit	500 MHz
37667.1M	6	24	grey	5 Gbit	250 MHz
37667SW.1M	6	24	black	5 Gbit	250 MHz
37668.1M	5E	24	grey	2.5 Gbit	100 MHz



Patchpanel STP 24xRJ45 Cat.6A/Class EA, 19" 1U

Special features

Cover: with screw closure
With captive dust protection

General specifications

Cross section: AWG24..AWG22
Connection type: LSA terminal
Colour code: according to TIA/EIA 568A/B
Contacts: gold plated
Ground terminal

Dimensions:.....44.5 x 482.6 x 109.0 mm
Temperature range (Storage): -40 – 70 °C
Temperature range (Operation): -10 – 60 °C

Art.-No.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37656.1	6A (TIA)	24	black	10 Gbit	500 MHz



Mini-Patchpanel STP Cat.6A, 10" 0,5U

Special features

Cover: with quick release

General specifications

Ports **37738.8: 8 x RJ45**
Ports **37738.12: 12 x RJ45**
Mounting method: 10"/wall-/DIN rail mounting
Cross section: AWG24..AWG22
Connection type: LSA terminal
Colour code: according to TIA/EIA 568A/B
Contacts: gold plated
Ground terminal
Suitable mounting for 10"-, wall- and optional DIN rail via DIN rail holder set (H83030.1)

Dimensions:.....22.0 x 254.6 x 108.0 mm
Temperature range (Storage): -40 – 70 °C
Temperature range (Operation): -10 – 60 °C

Art.-No.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37738.8	6A (TIA)	8	grey	10 Gbit	500 MHz
37738SW.8	6A (TIA)	8	black	10 Gbit	500 MHz
37738.12	6A (TIA)	12	grey	10 Gbit	500 MHz
37738SW.12	6A (TIA)	12	black	10 Gbit	500 MHz



Mini-Patchpanel STP, 10" 1U

Special features

Cover: with quick release

General specifications

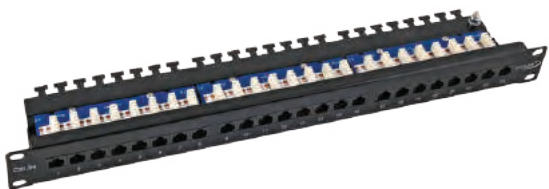
Mounting method: 10" / Wall / DIN rail
Cross section: AWG24..AWG22
Connection type: LSA terminal
Colour code: according to TIA/EIA 568A/B
Contacts: gold plated
Ground terminal
Suitable mounting for 10"-, wall- and optional DIN rail via DIN rail holder set (H83030.1)

Dimensions:.....44.0 x 254.6 x 108.0 mm
Temperature range (Storage): -40 – 70 °C
Temperature range (Operation): -10 – 60 °C

Art.-No.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37737.8	6A (TIA)	8	grey	10 Gbit	500 MHz
37737SW.8	6A (TIA)	8	black	10 Gbit	500 MHz
37737.12	6A (TIA)	12	grey	10 Gbit	500 MHz
37737SW.12	6A (TIA)	12	black	10 Gbit	500 MHz
37736.8	6	8	grey	5 Gbit	250 MHz
37736SW.8	6	8	black	5 Gbit	250 MHz
37736.12	6	12	grey	5 Gbit	250 MHz
37736SW.12	6	12	black	5 Gbit	250 MHz
37735.8	5E	8	grey	2.5 Gbit	100 MHz
37735SW.8	5E	8	black	2.5 Gbit	100 MHz
37735.12	5E	12	grey	2.5 Gbit	100 MHz
37735SW.12	5E	12	black	2.5 Gbit	100 MHz

Accessories for all items on this page

Art.-No.	Description
H83030.1	DIN-Rail holder set
81022.100	Cable ties, L 100mm W 2.5mm 100 pcs., transparent



ECOLAN® Patchpanel UTP 24xRJ45, 19" 1U

General specifications

Unshielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated

Dimensions:.....44.0 x 482.6 x 109.0 mm
 Temperature range (Storage): -40 – 80 °C
 Temperature range (Operation): -40 – 80 °C

Art.-No.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
11324126	6	24	black	5 Gbit	250 MHz
11324123	5E	24	black	2.5 Gbit	100 MHz



Patchpanel UTP 24xRJ45, 19" 1U, 180°

Compact design

General specifications

Unshielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated

Dimensions:.....43.5 x 482.6 x 28.5 mm
 Temperature range (Storage): -40 – 80 °C
 Temperature range (Operation): -40 – 80 °C

Art.-No.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37585.1	6	24	black	5 Gbit	250 MHz



Patchpanel UTP 24xRJ45 Cat.6, 19" 1U

General specifications

Unshielded Version
 Mounting method: 19"
 Cross section: AWG24..AWG22
 Connection type: LSA terminal
 Colour code: according to TIA/EIA 568A/B
 Contacts: gold plated

Dimensions:.....44.2 x 482.6 x 112.0 mm
 Temperature range (Storage): -40 – 68 °C
 Temperature range (Operation): -10 – 60 °C

Art.-No.	Category	Number of buses/couplings	Colour	Transmission	Bandwidth
37583SW.1	6	24	black	5 Gbit	250 MHz



Data outlet

40° outlet, 8-pole IDC terminals
 Fully shielded diecast housing
 Labelling field with transparent cover
 For installation in ducts and underfloor systems
 Central plate according to DIN49075
 Central plate 50 x 50 mm, including cover plate 80 x 80 mm
 Design capable, compatible with all common switch programmes

Art.-No.	Category	Flush mounted (plaster)	Surface mounting	Supply line for installation cable	Bandwidth	Transmission
ET-25130.1V1	6A (TIA)	True	False	horizontal	500 MHz	10 Gbit
ET-25133.1V1	6A (TIA)	True	False	vertical	500 MHz	10 Gbit
ET-25133AV5-R	6A (TIA)	True	True	vertical	500 MHz	10 Gbit
ET-25211.1V1	6	True	False	vertical	250 MHz	5 Gbit
ET-25211.2V1	6	True	False	horizontal	250 MHz	5 Gbit



Surface frame RAL9010

Surface frame 80x80x40mm
 Without cover
 Type of plastic: ABS
 RAL9010
 For data outlets and keystones frame sets

Scope of delivery:

1x Surface frame, 2x Screws: 3mm x 10mm

Art.-No.	Colour
ET-25084V3	white

Accessories for all items on this page

Art.-No.	Description
81022.100	Cable ties, L 100mm W 2.5mm 100 pcs., transparent

INSTALLATION & FLEXIBLE CABLES //



Installation cable	P. 154
Overview certifications	P. 155
Cable drums	P. 156
Stranded cables (bulk stock)	P. 157

// YOU MIGHT ALSO BE INTERESTED IN:

Patchpanel	P. 150
Network Switches	P. 314
Media Converter	P. 318
Cable Management	P. 240
Product Refinements	P. 87
Keystones	P. 117



CONSTRUCTION PRODUCTS-REGULATION



For our customers, we ensure that the cables offered meet the requirements of the construction products regulation. The implementation of the standard has been completed. The manufacturer of the respective installation cables is responsible for the classification. For the EFB own brands INFRALAN® and ECOLAN® the Euro brand classes can be seen in the product tables. In addition, the declarations of performance of the own brands are also available on the EFB website. It goes without saying that labeling and other delivery details are implemented in conformity with the EU regulation.

Summary Euro Classes

Reaction to fire classes Flame propagation, heat development	Additional classes			Security requirements in a building
	Smoke production/ density	Acidity development/ corrosivity	Flaming droplets/ particles	
A _{ca}				very high
B1 _{ca}				very high
B2 _{ca}	s1	a1	d1	very high
C _{ca}	s1	a1	d1	high
D _{ca}	s2	a1	d2	medium
E _{ca}				low
F _{ca}				non

Source: ZVEI – Low fire-hazard cables improve safety (12.10.2016)

Further information in accordance to CPR you will find on our homepage www.efb-elektronik.de/en

INSTALLATION & FLEXIBLE CABLES | INSTALLATION CABLE

Installation and stranded cables are the key element of a copper-based transmission link. EFB-Elektronik has a wide range of installation cables for indoor and outdoor use as well as for various applications up to 40 Gigabit Ethernet pursuant to Cat.8 CLASS I S/FTP (up to 2000 MHz). The delivery takes place in batch sizes from 100 to 1,000 meters, as well as lengths according to customer request. The jacket material is available in PVC, LSZH and in industrial PUR versions. In addition to installation cables, EFB-Elektronik also offers patch cables for own assembling as bulk goods.



Cat.8.2 Installation cable

Art.-No.	Category	Type	Jacket/ Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
99827.x	8.2	simplex	FRNC-C/ yellow	22/1/ Cu, tinned	8.5	Dca	0.64 mm	S/FTP	2000 MHz	100 - 500 - 1000m	

Cat.7A Installation cable

Art.-No.	Category	Type	Jacket/ Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
999830.x-CPR	7A	simplex	FRNC/ yellow	22/1/ Cu, tinned	8,6	Cca	0.64 mm	S/FTP	1500 MHz	100 - 500 - 1000 m	
999830DX.x-CPR	7A	duplex	FRNC/ yellow	22/1/ Cu, tinned	8,6x17,5	Cca	0.64 mm	S/FTP	1500 MHz	500 m	
MK7100.x-CPR	7A	simplex	FRNC/ orange	22/1/ Cu, tinned	8,4	B2ca	0.62 mm	S/FTP	1200 MHz	100 - 1000 m	
MK7100DX.x-CPR	7A	duplex	FRNC/ orange	22/1/ Cu, tinned	8,4x16,8	B2ca	0.62 mm	S/FTP	1200 MHz	500 m	
99985.x-CPR	7A	simplex	FRNC/rapeyellow	23/1/ Cu, tinned	7,7	Cca	0.56 mm	S/FTP	1250 MHz	100 - 500 1000 m	
99985DX.x-CPR	7A	duplex	FRNC/rapeyellow	23/1/ Cu, tinned	7,7 x 16,1	Cca	0.56 mm	S/FTP	1250 MHz	500 m	

Cat.7 Installation cable

Art.-No.	Category	Type	Jacket/ Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
99981.x-CPR	7	simplex	FRNC/ orange	23/1/ Cu, blank	7.5	Cca	0.56 mm	S/FTP	1000 MHz	100 - 200 - 500 - 1000 m	
99981DX.x-CPR	7	duplex	FRNC/ orange	23/1/ Cu, blank	7.5 x 15.8	Cca	0.56 mm	S/FTP	1000 MHz	100 - 500 m	
99980.x-CPR	7	simplex	FRNC/ orange	23/1/ Cu, blank	7.3	Eca	0.56 mm	S/FTP	1000 MHz	25-50-100-500-1000m	
99980DX.x-CPR	7	duplex	FRNC/ orange	23/1/ Cu, blank	7.2 x 15.0	Eca	0.56 mm	S/FTP	1000 MHz	25 - 50 - 100 - 500 m	
99733.x-CPR ③	7	simplex	PE + LSZH/ black	23/1/ Cu, blank	8.4		0.56 mm	S/FTP	1200 MHz	25-50-100-250-500-1000m	
99731.x ①	7	simplex	PE/ black	23/1/ Cu, blank	8.4		0.56 mm	S/FTP	900 MHz	100 - 500 m	
99739.x ②	7	simplex	PE + LSZH/ black	23/1/ Cu, blank	13.5		0.56 mm	S/FTP	900 MHz	1000 m	
99732.x ③	7	simplex	PE + LSZH/ black	23/1/ Cu, blank	9.5	Eca	0.56 mm	S/FTP	900 MHz	100 - 500 m	
MK7101.x-CPR	7	simplex	FRNC/ orange	23/1/ Cu, blank	7.5	Dca	0.56 mm	S/FTP	1000 MHz	100 - 500 - 1000 m	

① Outdoor ② Steel tapered rodent protection ③ Suitable for outdoor use

Cat.6A Installation cable

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
99978.x-CPR	6A (IEC)	simplex	LSZH/ white	23/1/ Cu, blank	7.2	Dca	0.55 mm	U/FTP	500 MHz	305 - 500 m	
99978DX.500-CPR	6A (IEC)	duplex	LSZH/ white	23/1/ Cu, blank	7.2 x 15.0	Dca	0.55 mm	U/FTP	500 MHz	500 m	
99965.x-CPR	6A (IEC)	simplex	LSZH/ blue	23/1/ Cu, blank	6.6	B2ca	0.57 mm	U/UTP	500 MHz	305 - 500 m	

Cat.6 Installation cable

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
99962.x-CPR	6	simplex	LSZH/ white	23/ Cu, blank	6.0	Dca	0.54 mm	U/UTP	500 MHz	305 - 500 m	
99961.305-CPR	6	simplex	LSZH/ white	25/1/ Cu, blank	4.6	Dca	0.44 mm	U/UTP	500 MHz	305 m	

Cat.5e Installation cable

Art.-No.	Category	Type	Jacket/Colour	AWG/Conductor	Ø in mm	Euro class	Conductor diameter	Cable construction	Max. Frequency	Length	Brand
11930515-CPR	5e	simplex	PVC/ grey	24/1/ Cu, blank	5.0	Eca	0.49 mm	U/UTP	100 MHz	305 m	

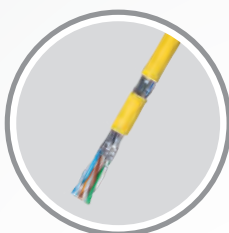


OVERVIEW OF OUR CERTIFIED PRODUCTS

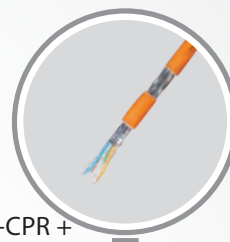
MK7101.x-CPR +
MK7101DX.x-CPR



99985.x-CPR +
99985DX.x-CPR



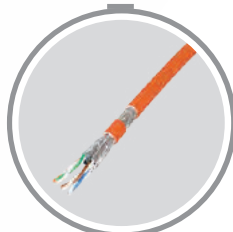
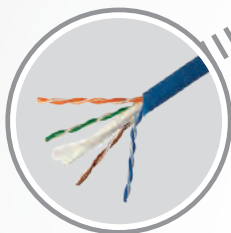
99981.x-CPR +
99981DX.x-CPR



E-20092



99965.x-CPR



MK7100.x-CPR +
MK7100DX.x-CPR

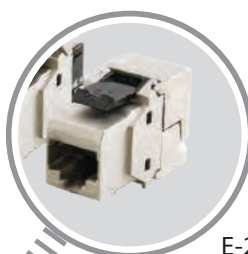
- GHMT PVP:
- Consistently high quality through constant monitoring
- Samples are taken from the market by GHMT
- Listing of products with status on the GHMT website

- Tests are executed as component tests or link tests
- Samples are sent in by the manufacturer
- Certificates have a validity of 2 years

K5525Fxx.x



E-20070



E-200100



E-20091



E-20093



99980.x-CPR





Cat.8.1/Class I Installation link

Robust special rubber cable drum, complete with Cat.8.2 S/FTP installation cable, integrated outlet Cat.8.1 1 x RJ45 with dust cap and 1 x Cat.8.1 RJ45. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc.

Art.-No.	Description	Colour outer sheath
K9210.25	Cat.8.1/Class I Installation link 25m, on cable drum	yellow
K9210.50	Cat.8.1/Class I Installation link 50m, on cable drum	yellow



Cat.8.1/Class I Extension

Robust special rubber cable drum, complete with Cat.8.2 S/FTP installation cable, integrated outlet Cat.8.1 1 x RJ45 with dust cap and 1 x Cat.8.1 RJ45 plug. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc.

Art.-No.	Description	Colour outer sheath
K9211.25	Cat.8.1/Class I Extension 25m, on cable drum	yellow
K9211.50	Cat.8.1/Class I Extension 50m, on cable drum	yellow



Cat.6A/ CLASS EA Installation Link S/FTP PIMF Cat.7 Installation Cable + Cat.6A RJ45 Keystones

Robust special rubber cable drum, complete with Cat.7 S/FTP installation cable, integrated outlet Cat.6A 1 x RJ45 with dust cap and 1 x Cat.6A RJ45. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc. A standardised installation section in accordance with structured cabling Cat.6A / Class EA.

Art.-No.	Description	Colour outer sheath
K9201.50	Cat.6A/classEA Installation link, S/FTP, 50m on drum	orange
K9201.90	Cat.6A/classEA Installation link, S/FTP, 90m on drum	orange

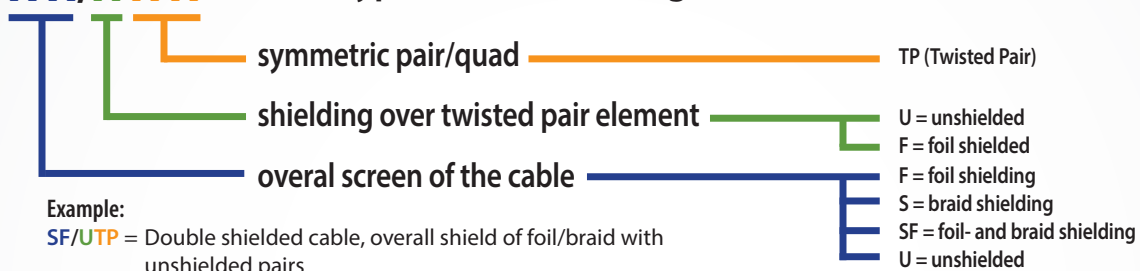


Cat.5e/ CLASS D Installation Link F/UTP Cat.5e Installation Cable+ Cat.5e RJ45 Keystones

Robust special rubber cable drum, complete with F/UTP Cat.5e installation cable, integrated outlet 1 x RJ45 with dust cap and 1 x RJ45 modular jack. Very well suited to mobile use, for exhibitions, presentations, outside broadcasting vans, measuring sections etc. A standardised installation section in accordance with structured cabling Cat.5e.

Art.-No.	Description	Colour outer sheath
K9200.50	Cat.5e Installation link F/UTP, 50m on drum	grey
K9200.90	Cat.5e Installation link F/UTP, 90m on drum	grey

X X/X X X Cable-Type Codes according to ISO/IEC11801 (2002)



Cable type F/UTP

- Aluminium foil als overall shielding
- Unshielded pairs
- Area of application up to > 100MHz
- Sufficient EMC-characteristics

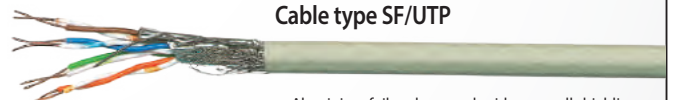


Cable type S/FTP

- Pair shielding with aluminium foil
- Copper braid as overall shield
- Area of application up to > 1000MHz
- Very good EMC-characteristics

Cable type U/UTP

- No overall shielding
- Unshielded pairs
- Recommended for closed, metallic installation systems
- No EMC-characteristics



Cable type SF/UTP

- Aluminium foil and copper braid as overall shielding
- Unshielded pairs
- Area of application up to > 500MHz
- Good EMC-characteristics



CHARACTERISTICS OF PATCH CABLE METER WARE

Type identification	Art.-No.	Category	Jacket	AWG/Conductor	Ø in mm	Euro class	Cable construction	Max. Frequency
Kerpen MegaLine F10-120 S/F flex	99726.x	7A	FRNC-B	26/7/ Cu, tinned	6.0	-	S/FTP	1200 MHz
Draka UC900 SS27 Cat.7	9970x.x	7	FRNC-B	27/7/ Cu, tinned	5.9	Eca	S/FTP	1000 MHz
Draka UC900 SS27 Cat.7 PUR ①	99710.x	7	PUR (Polyurethan)	27/7/ Cu, tinned	5.9	-	S/FTP	1000 MHz
EFB MK7104	MK7104.xx	7	FRNC-B	26/7/ Cu, tinned	6.5	-	S/FTP	600 MHz
Dätwyler CU 5502 flex	9870x.x	5e	PVC	26/7/ Cu, tinned	5.1	-	S/UTP	300 MHz
Kerpen MegaLine D1-20 S/U PUR superflex ②	99526MC.x	5e	PUR (Polyurethan)	26/19/ Cu, tinned	6.8	-	S/UTP	200 MHz
Kerpen MegaLine D1-20 SF/U flex	99525.x	5e	PVC	26/7/ Cu, tinned	5.3	-	SF/UTP	200 MHz
Kerpen MegaLine D1-20 SF/U flex	99526.x	5e	FRNC	26/7/ Cu, tinned	5.3	-	SF/UTP	200 MHz
EFB 99956	99956.x	5e	PVC	26/7/ Cu, tinned	6.2	-	SF/UTP	350 MHz
Draka UC300 HS26	9925x.x	5e	FRNC-B	26/7/ Cu, tinned	5.7	-	SF/UTP	300 MHz
Draka UC300 S26	9915x.x	5e	FRNC-B	26/7/ Cu, tinned	5.0	-	F/UTP	300 MHz

① Resistant to mineral oil, ASTM oil and UV radiation, highly abrasion resistant.

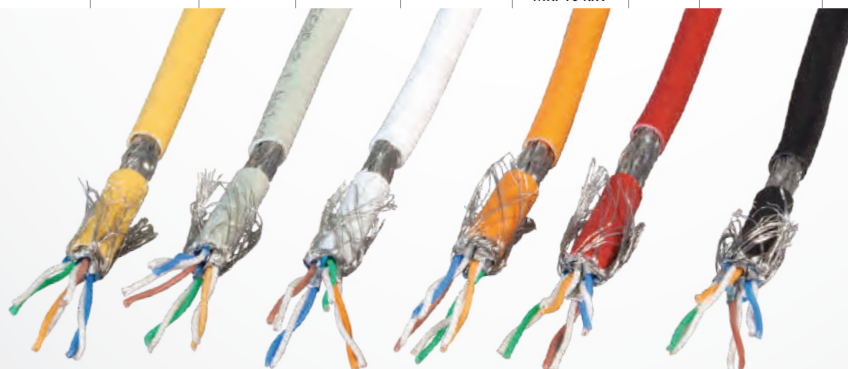
② suitable for drag chains

Stock length: 100 - 1000 m

COLOUR SELECTION OF THE PATCH CABLES METER WARE

	Dätwyler CU 5502 flex	Draka UC300 HS26	Draka UC300 S26	Draka UC900 SS27	Draka UC900 SS27 Cat.7 PUR	EFB MK7104	EFB 99956	Kerpen MegaLine D1-20 S/U PUR superflex	Kerpen MegaLine F10-120 S/F flex	Kerpen MegaLine D1-20 SF/U flex PVC	Kerpen MegaLine D1-20 SF/U flex LSZH
red	98703.x	99256.x	99156.x	99703.x	99710.x	MK7104.xR					
blue	98704.x	99254.x	99154.x	99704.x		MK7104.xBL					
yellow	98702.x	99255.x	99155.x	99702.x		MK7104.xY		99526MC.x			
grey	98701.x	99258.x	99158.x	99701.x		MK7104.xG	99956.x		99726.x	99525.x	99526.x
green	98706.x	99253.x	99153.x	99706.x		MK7104.xGR					
white				99708.x		MK7104.xW					
brown						MK7104.xBR					
orange				99707.x		MK7104.xO					
magenta				99709.x		MK7104.xP					
black	98705.x		99157.x	99705.x		MK7104.xB					
violet						MK7104.xV					

Stock length: 100 - 1000 m



RJ45 CONNECTORS & ACCESSORIES //



Field Installable Plug	P. 159
Connector sets	P. 160
Modular connectors	P. 161

// YOU MIGHT ALSO BE INTERESTED IN:

Installation Cable	P. 154
Flex / Patch Cable	P. 157
Keystones	P. 117
Tools	P. 162
Data Outlets	P. 151



Field installable connector RJ45 Cat.8 Class 1

The RJ45 plug provides a combination of excellent transmission quality and fast and easy tool-free assembly. Fully shielded zinc diecast housing ensures the best EMC features especially in industrial environments. IDC terminals and very low contact resistances assure high quality contacting for installation cables up to 9mm diameter and wire gauge from AWG22 - AWG27.

Shielded zinc diecast body with separate dust cap and anti-kink sleeve
 Compact cable manager for AWG 22/1 .. AWG 26/1 or AWG22/7 .. AWG27/7
 Pair management according to TIA 568A /B colour codes and industrial Profinet 1-2-3-6

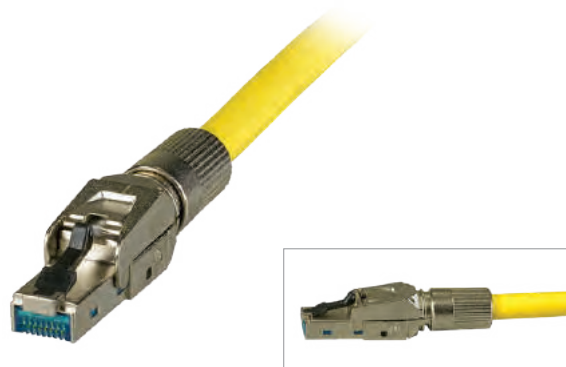
Re-termination capability up to 5 times with the same width, for AWG27/7 up to 2 times

Suitable for cable dia from 6.0mm .. 9.0mm

Strain relief with cable gland

Tension relief with cable gland and sliding lever

Art.-No.	Description	Colour	Category	Screened
88035.2	Field installable connector, RJ45 Cat.8 Class 1 AWG22 - 27, zinc alloy	silver	Cat.8 Class 1	True



accessory

Art.-No.	Description
E-20092	RJ45 Keystone STP, Cat.8 Class 1, 2000MHz
99827.1	UC FUTURE C22 Cat.8.2 S/FTP 4P 2GHz, LSHF-FR
K9210.25	Cat.8.1/Class 1 Installation link 25m, on cable drum



RJ45 Premium plug STP, Cat.6A/ClassEA, Field-Plug

The Cat. 6A Premium RJ45 is a highlight in the chain of further development of RJ45 connectors for field assembly. An extraordinarily robust full metal housing made of zinc die-casting paired with the unique variable cable feed opens up a wide range of application possibilities. Installation can be done in **9 different positions**: 8 different angled positions and a 180° straight cable entry. The conical metal cable gland allows cable diameters from 6.0mm to 9.0mm. The connector meets the requirements of transmission class Cat. 6A/Class EA and supports the Ethernet protocol up to **10 Gigabit** per second.

Art.-No.	Description	Colour	Category	Screened
88035P8.1	RJ45 Premium plug STP, Cat.6A/ClassEA, Field-plug, full metal	silver	6A (IEC)	True



RJ45 Connector, Field-Plug

The ECOLAN® RJ45 plug provides a combination of excellent transmission quality and fast and easy tool-free assembly. IDC terminals and very low contact resistances assure high quality contacting for installation cables up to 9mm diameter and wire gauge from AWG22 - AWG27.

Unshielded polycarbonate body with separate dust cap and anti-kink sleeve

Cat.6/Class E performance according to ISO/IEC11801 and IEC60603-7-4
 Compact cable manager for AWG 22/1 .. AWG 26/1 or AWG22/7 .. AWG27/7

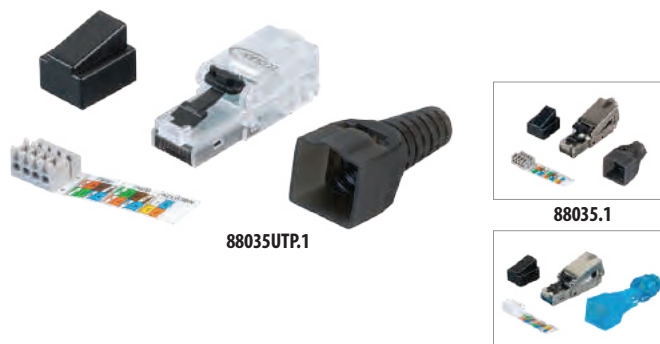
Pair management according to TIA 568A /B colour codes and industrial Profinet 1-2-3-6

Re-termination capability up to 5 times with the same width, for AWG27/7 up to 2 times

Suitable for cable dia from 6.0 mm .. 9.0 mm

Strain relief with cable tie

Art.-No.	Description	Colour	Category	Screened
88035AV.1	RJ45 Connector STP, Cat.6A, Field-Plug	aqua	6A (TIA)	True
88035.1	RJ45 Connector STP, Cat.6, Field-Plug	black	6	True
88035UTP.1	ECOLAN® RJ45 Connector UTP, Cat.6, Field-Plug	black	6	False



accessory

Art.-No.	Description
K5534FRT.1	RJ45 Patch cable S/FTP, Cat.6A, TPE superflex, 1m, red
99980.1-CPR	INFRALAN® Cat.7 1000 AWG23, S/FTP 4P CPR Eca orange

Shielded version
 Conductor insulation approx. 0.9 - 1.0 mm
 The set consists of RJ plug, anti-kink sleeve and guide plate.
 Suitable crimping tool
 DCW1002 + DCW1002.1 or 39934.2



RJ45 Hirose Connector set TM31 Cat.6A

-1 PU 1 piece, -10 PU 10 pieces, -100 PU 100 pieces

Art.-No.	Colour	AWG-Range for litz wire conductor	Category	Cable diameter max.
H7642.1-x	beige	24 – 27	6A (TIA)	6.6 mm
H7642.4-x	black	24 – 27	6A (TIA)	6.6 mm
H7642.5-x	yellow	24 – 27	6A (TIA)	6.6 mm
H7642.6-x	red	24 – 27	6A (TIA)	6.6 mm
H7642.7-x	blue	24 – 27	6A (TIA)	6.6 mm
H7642.8-x	green	24 – 27	6A (TIA)	6.6 mm
H7642.10-x	orange	24 – 27	6A (TIA)	6.6 mm
H7642.12-x	grey	24 – 27	6A (TIA)	6.6 mm



RJ45 Hirose Connector set TM21 Cat.6

-1 PU 1 piece, -10 PU 10 pieces, -100 PU 100 pieces



Art.-No.	Colour	AWG-Range for litz wire conductor	Category	Cable diameter max.
H7641.1-x	beige	24 – 27	6	6.6 mm
H7641.4-x	black	24 – 27	6	6.6 mm
H7641.5-x	yellow	24 – 27	6	6.6 mm
H7641.6-x	red	24 – 27	6	6.6 mm
H7641.7-x	blue	24 – 27	6	6.6 mm
H7641.8-x	green	24 – 27	6	6.6 mm
H7641.10-x	orange	24 – 27	6	6.6 mm
H7641.12-x	grey	24 – 27	6	6.6 mm



RJ45 Hirose Connector set TM11 Cat.5e

-1 PU 1 piece, -10 PU 10 pieces, -100 PU 100 pieces



Art.-No.	Colour	AWG-Range for litz wire conductor	Category	Cable diameter max.
H7540.1-x	beige	24 – 27	5E	5.8 mm
H7540.4-x	black	24 – 27	5E	5.8 mm
H7540.5-x	yellow	24 – 27	5E	5.8 mm
H7540.6-x	red	24 – 27	5E	5.8 mm
H7540.7-x	blue	24 – 27	5E	5.8 mm
H7540.8-x	green	24 – 27	5E	5.8 mm
H7540.12-x	grey	24 – 27	5E	5.8 mm





Cat.6 RJ45 Plug STP

Up to 250 MHz (Cat.6)
 For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
 Shielded version
 Core insulation about 0.9 - 1.0 mm
 Cable diameter max. 6.2 mm
 Suitable crimping tool DCW1003 + DCW1003.1

Anti-kink sleeve not included

Art.-No.	Description	Colour
37640.1-100	RJ45 Connector STP, Cat.6, 100pcs	silver

accessory

Art.-No.	Description
DCW1003	Crimping tool (frame) for die inserts DCW1003.x
DCW1003.1	Die insert for DCW1003, suit. 37640.1, 37541.3, 37519.1



Cat.5e RJ45 Plug STP

Up to 100 MHz (Cat.5e)
 For stranded wires (AWG 24/7, AWG 26/7, AWG 27/7)
 Shielded version
 Core insulation about 0.9 - 1.0 mm
 Cable diameter max. 6.3 mm
 Suitable crimping tool DCW1003 + DCW1003.1

Anti-kink sleeve not included

Art.-No.	Description	Colour
37541.3-100	RJ45 Connector STP, Cat.5e, 100pcs	silver

accessory

Art.-No.	Description
37546.8-100	Anti-Kink sleeve RJ45 Green, with Latch Protection, 100 Pcs.
37546.6-100	Anti-Kink sleeve RJ45 Red, with Latch Protection, 100 Pcs.
37546.4-100	Anti-Kink Sleeve RJ45 Black, with Latch Protection, 100 Pcs.
37546.1-100	Anti-Kink Sleeve RJ45 Beige, with Latch Protection, 100 Pcs.
37546.7-100	Anti-Kink sleeve RJ45 Blue, with Latch Protection, 100 Pcs.
37546.5-100	Anti-Kink Sleeve RJ45 Yellow, with Latch Protection, 100 Pcs.
DCW1003	Crimping tool (frame) for die inserts DCW1003.x
DCW1003.1	Die insert for DCW1003, suit. 37640.1, 37541.3, 37519.1



RJ45 Strain Relief Boot

Anti-Kink sleeve for 37541.3, 37514.1, 37519.1, 37539.1, 37640.1, 34600.1
 Cable entry max. 6.6 mm

Art.-No.	Description	Colour
37546.1-100	Anti-Kink Sleeve RJ45 Beige, with Latch Protection, 100 Pcs.	beige
37546.4-100	Anti-Kink Sleeve RJ45 Black, with Latch Protection, 100 Pcs.	black
37546.5-100	Anti-Kink Sleeve RJ45 Yellow, with Latch Protection, 100 Pcs.	yellow
37546.6-100	Anti-Kink sleeve RJ45 Red, with Latch Protection, 100 Pcs.	red
37546.7-100	Anti-Kink sleeve RJ45 Blue, with Latch Protection, 100 Pcs.	blue
37546.8-100	Anti-Kink sleeve RJ45 Green, with Latch Protection, 100 Pcs.	green



Dust protection cap for RJ45 plug

Dust cap for RJ45 Connectors

Art.-No.	Description
88048.1-10	Dust protection cap for RJ45 Connector, black

TOOLS & MEASURING INSTRUMENTS //



Tools & Meters	P. 163
Cable Tester	P. 164
Network Tester	P. 165

// YOU MIGHT ALSO BE INTERESTED IN:

Patchpanel	P. 150
Patch Cable	P. 130
Keystones	P. 117
Installation Cable	P. 154



DCW Crimp Tool without inserts

High precision crimping tool
 Delivery without inserts
 Inserts for DCW1002: DCW1002.x
 Inserts for DCW1003: DCW1003.x
 High-quality aluminium case for transport and protection available as accessories

Art.-No.	Description
DCW1002	Crimping tool(frame) for die inserts DCW1002.x

accessory

Art.-No.	Description
DCW1002.2	Die insert Stewart SS39200-12 for DCW1002
DCW1002.1	Die insert Hirose TM11/21/31 for DCW1002
39841.1	PRIMO Hirose Crimping Tools Case, Alu



Crimping Tool for RJ45 Hirose connector TM series

For crimping 8-pole Hirose plugs incl. strain relief in one operation
 Particularly suitable for local assembly
 Without Accessories

Art.-No.	Description
39934.2	Crimping tool for RJ45 Hirose connector TM series

accessory

Art.-No.	Description
H7642.4-50	RJ45-Hirose Connector TM31 black
H7641.4-50	RJ45-Hirose Connector TM21 black
H7540.4-50	RJ45-Hirose TM11 black 50 pcs.



Crimping Tool E-MUC410 for RJ Plug

For 4-, 6-, 6-DEC-, 8-, AMP, and shielded RJ45 Far East and for cutting and stripping
 Ideal for local assembly
 Following plugs can be crimped:
 37517.1, 37516.1, 37518.1, 37512.1, 37511.1, 37513.1, 37514.1, 37542.1

Art.-No.	Description
E-MUC410	Crimping tool for Modular Connector 4-8 pole



Crimping Tool E-SK310 for RJ Connector

For crimping 4-pole, 6-pole, 8-pole, cutting and stripping
 Ideal for local assembly
 Following plugs can be crimped:
 37516.1, 37518.1, 37519.1, 37511.1, 37513.1, 37514.1, 37541.3, 37640.1

Art.-No.	Description
E-SK310	Crimping tool for modular connector



LSA/IDC Insertion Tool

For applying the cable cores to LSA connection technology
 For cable diameter 0.4 .. 0.8 mm
 Simultaneous wire cutting

Art.-No.	Description
39951.1	Krone LSA Insertion Tool with Sensor
39933.1	LSA Insertion Tool



Stripping Tool

Tool for stripping the jacket and additionally the metal foil shield of data cables (S/FTP, U/FTP)
 Material plastic, colour blue

Art.-No.	Description
DCW1008	Stripping Tool for jacket and foil shield



Cable Cutter

For installation and patch cables
 For cutting and stripping the individual wires

Art.-No.	Description
39912.1	Cable Cutter



LAN Test Kit

Network and modular test
 Line tester for structured cabling and patch cables
 Advantage: Not pairs only, but any individual core can be tested for assignment
 For testing 10BaseT, 10Base2 Thin Ethernet (coax), RJ45 / RJ11 modular cable
 TIA-568A, 568B

Art.-No.	Description
39936.1	Lan test kit, network and modular cable



Cable Tester

For structured cabling and patch cables
 Save expensive troubleshooting with a LAN analyzer
 Standardisation TIA/EIA 568A, TIA/EIA 568B, 365A and Token Ring

Art.-No.	Description
39938.1	Cable tester, remote adapter case



LANTester Network

LAN test kit, master and remote unit network and modular test
 Cable tester for twisted pair cabling and patch cables
 RJ11/12/45 local or remote connections can be tested
 Separate LED for Pin 1 - 8 and ground
 Each individual core is automatically scanned
 Scan speed low/high, adjustable
 Incl. black plastic case
 Battery 9 V, E-block not included

Art.-No.	Description
39939.1	Lantester network & modular cable, RJ11/12/45



LANSmart Network Tester

Handy high-tech measuring for network professionals
 Technology: Time-domain reflectometer based
 Cable length measurement possible without remote unit
 RJ45 patch cable or raw cable measurable
 Detects pinning, pair assignment, short-cuts
 Port finder function:
 LANSmart makes the link LED of the hub/switch/MC/NIC light up
 Master and remote unit RJ45, plugable
 LCD display: 122x32 dot matrix 56x29mm
 Measuring accuracy: Below 10m +2m, above 10m +5%
 Length measuring range: min.: 1m - max.: 500m
 Tone generator: 1kHz
 Dimensions: 82x138x32mm, 220g
 Power supply: 4.5VDC (3 x AAA micro) (not included)
 CE tested

Art.-No.	Description
39978.1	LANSmart network tester with LCD display, TDR technology

Network Tool Set

This Tool Kit is ideal for field service. You can use the Tool Kit for fault diagnostics, testing and for new installations.

Incl. in delivery:
 LAN-Tester RJ11/RJ12/RJ45 (battery 9 V E-Block not included)
 Crimping Tool for RJ11/RJ12/RJ45
 Cut and Stripping Tool
 IDC Insert Tool



Art.-No.	Description
39919.1	Network Tool Kit with 4 units

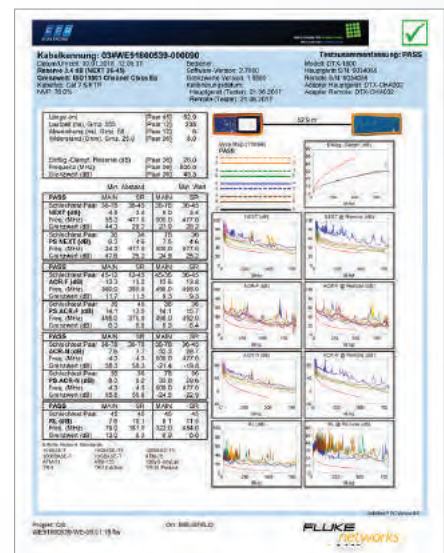
OUR SERVICE IN THE FIELD OF COPPER CABLING



EFB-Elektronik offers various measurements for all kind of cable assemblies of the portfolio. At the Headquarter in Bielefeld, attenuation measurements are carried out on patch cables or pre-assembled links. The measured cables can be assigned via a serial number attached to the cable.

- 1. DLOKUPFER-Dämpfung | IL measurement for patch cable inclusive, label with serial number, lead time for 200pcs. approx. 3 working days plus regular picking time
- 2. DLOWICKEL2 | Assembling of label on both sides of cable, lead time for 200pcs. approx. 3 working days plus regular picking time*

* lead time for other quantities on request





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	Verifier		Qualifier	Certifier	
Art-No.	CM600/CM650	CM800/CM850	NX_XG2_10G	Upgrade to WX4500 possible WX500	WX4500-FA-V2
Application					
Typical areas of application					
Home Cabling	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Office Cabling	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Industrial Cabling			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data center				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Measurement to Standards					
ANSI/TIA 568 (US)				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ISO/IEC 11801 (International)				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EN 50173 (Europa)				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Testing by application					
IEEE802.3 Fast Ethernet 100Mbit/s Clause 25			<input checked="" type="checkbox"/>		
IEEE802.3 Gigabit Ethernet 1000Mbit/s Clause 40			<input checked="" type="checkbox"/>		
IEEE 802.3af PoE 12,95W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
IEEE 802.3at PoE+ 21,9W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Passive Test- und Measurement Parameters					
Wire map	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Length measurement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ton Generator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
HF Measurement (NEXT; Insertion Loss, Return Loss,..)				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Signal-to-Noise-Ratio			<input checked="" type="checkbox"/>		
Delay Skew			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Measuring frequency				up to 500 MHz	up to 2.500 MHz
Active Test Parameters					
Ethernet detection and display the transfer rate	up to 1Gbit/s	up to 1Gbit/s	up to 10Gbit/s		
DHCP test		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Ping test		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Discovery function (LLDP;CDP;NDP)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Port LED activation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
VLAN recognition		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Trace Route			<input checked="" type="checkbox"/>		
Bit-Error-Rate Test			<input checked="" type="checkbox"/>		
Reporting					
Screenshot	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Report generation already in tester			<input checked="" type="checkbox"/>		
PC-Reporting software				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Copper Fiber

IP67/68 PLUG-IN SYSTEMS //



IP68 Components

P. 167

IP67 Components

P. 168 - 169

// YOU MIGHT ALSO BE INTERESTED IN:

HDMI cable P. 288

USB P. 272

Patch cable P. 130

Fiber Jumper P. 77



IP68 Receptacle for keystone modules and adapters

IP68 Socket Housing for all EFB-Elektronik keystone modules and adapters
 With bayonet lock to IEC61076-3-106
 M30 mounting with silicone seal
 Mounting diameter: 30mm
 Suitable for use with Keystone modules, Snap-in and keystone mounting adapters
 Straight outlet 180 °
Delivery unequipped

Accessory:

IP68 Cap: IP68EBCAP
 Utilization:.....Modular-Jack
 With dust cover:.....Yes
 Material:.....Plastic
 Type of locking:.....Bayonet lock
 Suitable for degree of protection (IP): IP68



Art.-No.
IP68EBKS

Accessory

Art.-No.	Description
IP68EBCAP	IP68 Dust cap for receptacles, Bayonet locking acc. to IEC61076-3-106



RJ45 Cat.6A IP68 adapter

IP68 cable connector for outdoor installation. Integrated Cat.6 RJ45 jack to facilitate connection. Designed for transmissions up to 250MHz according to ISO/IEC 11801 ClassE and Data transmission rate up to 5 Gbit/s.

- Easy installation
- Waterproof cable connector of protection class IP68
- Max. Voltage of 125V and max. current of 1.5A
- Cable gland in M16
- For cables with a max. diameter of 19.5mm
- L x D 121.5mm x 28 mm

Construction type:.....straight
 Model:.....female/female
 Temperature Range (Operation):0 – 70 °C
 Temperature Range (Storage):.....-40 – 85 °C

Art.-No.	Category
IP68DFKRJ456AWP	6A (TIA)
IP68DFKRJ45WP	6

Accessory

Art.-No.	Description
K3130.1	RJ45 Patch cable S/FTP, Cat.6A, PUR, Cat.7 Raw cable, TM31, 1m, black
99733.1-CPR	Cat.7 In-/Outdoor cable 1200MHz AWG23 S/FTP,PE jacket, inner Dca, Sw& Or,1000m
88035.1	RJ45 Connector STP, Cat.6, Field-Plug



IP68 Cable gland for RJ45 field installable plugs, 4.5-6.5mm

IP68 cable gland for RJ45 field-assembly plugs
 With bayonet lock to IEC61076-3-106
 Straight outlet 180 °
Delivery unequipped

Scope of delivery: 3-part consisting of:
 1x IP68 cable gland housing (without plug)
 1x Cable seal IP68FST6AA: 4.5-6.5mm
 1x Strain relief fitting

Accessory:

IP68 Cap: IP68STCAP
 Field assembly plug: 88035.1, 88035UTP.1, 88035AV.1, IVB-6A-S

Utilization:.....Cable outlet
 With dust cover:.....Yes
 Material:.....Plastic
 Type of locking:.....Bayonet lock
 Suitable for degree of protection (IP): IP68



Art.-No.
IP68FST6AA
IP68FST6AB

Accessory

Art.-No.	Description
IP68STCAP	IP68 Dust cap for cable gland, Bayonet locking acc. to IEC61076-3-106



IP68 Cable gland for RJ45 HRS TM11/21/31 St

IP68 cable gland for RJ45 plug: Hirose TM11/21/31
 With bayonet lock to IEC61076-3-106
 Straight outlet 180 °
Delivery unequipped

Scope of delivery: 3-part consisting of:
 1x IP68 cable gland housing (without plug)
 1x Cable gland 4,5-6,5mm
 1x Strain relief fitting

Accessories:

IP68 Cap: IP68STCAP

Utilization:.....Cable outlet
 With dust cover:.....Yes
 Material:.....Plastic
 Type of locking:.....Bayonet lock
 Suitable for degree of protection (IP): IP68



Art.-No.
IP68ST6ATM

Accessory

Art.-No.	Description
IP68STCAP	IP68 Dust cap for cable gland, Bayonet locking acc. to IEC61076-3-106



Cat.6A IP67 Distribution Box

Housing: Complete with 2 x Cat.6A RJ45 Keystone, IP67 strip for patch cable IP67 (K8670.x) and 2 x cable glands M16
Housing entry: 2 x cable glands M16 for data cable (reference Cat.7 UC900)
Housing outlet: 2 x Cat.6A RJ45 Keystone with IP67 strip
 Plastic housing
 Dimension W x H x D: 80 x 45 x 110 mm

Recommended Patch Cable: K8670.x

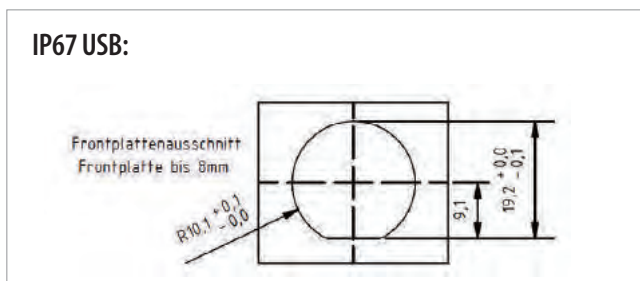
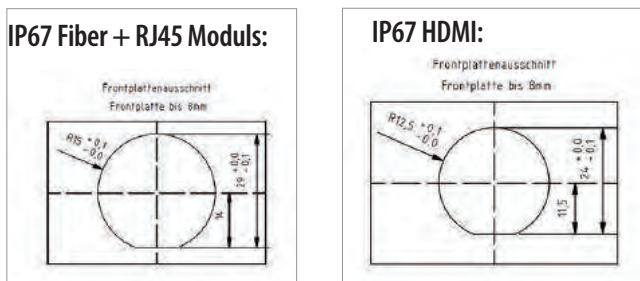
Category:.....6A (TIA)
 Material connector housing:.....plastic
 Type of connector:.....RJ45 8(8)
 Connection type:.....LSA
 Outlet direction:.....straight
 With dust cover:.....True
 Degree of protection (IP):.....IP67

Art.-No.
53730.1V2

accessory

Art.-No.	Description
K8670.1	RJ45 Patch cable S/FTP, Cat.6A, IP67/TM21 / TM21, PUR, for 53730.1V2, 1m

Installation dimension for fittings and lead-through adapters:



IP67 Cable gland, M25, RJ45 TM31, M-M

Category:.....6A (TIA)
 Cable type:.....S/FTP
 Type of connector connection 1: RJ45 8(8)
 Type of connector connection 2: RJ45 8(8)
 Fire retardant version:.....Yes
 Halogen free:.....Yes
 Cable construction:.....4x2
 Pin assignment:.....1:1
 AWG-size:.....27
 Type of housing:.....Brass Nickel-plated

Stock length: 1,0 - 2,0 - 5,0 - 10 m

Art.-No.	Colour outer sheath
IP67KVRJ45TM31-x	blue



IP67 Receptacle, M25, RJ45 Cat.6A E-20070

Category:.....6A (TIA)
 Model:.....Jack (Jack)
 Type of connector:.....RJ45 8(8)
 Screened:.....Yes
 Connection type:.....IDC
 AWG-range for litz wire conductor:.....26 – 24
 AWG-range:.....24 – 22
 Housing material:.....Brass Nickel-plated
 Type of locking:.....M25
 Dust cover:.....Yes

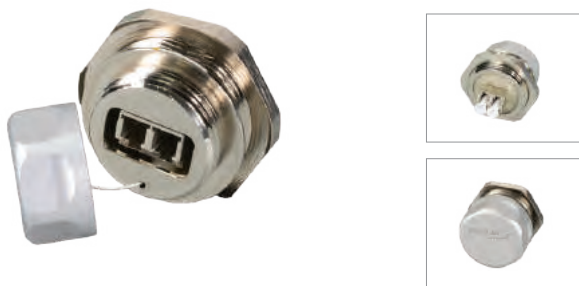
Art.-No.
IP67EBRJ45KSFL



IP67 metal adapter, M25, RJ45 Cat.6A, F-F

Connection 1:.....RJ45 8(8) Jack
 Connection 2:.....RJ45 8(8) Jack
 Type of housing:.....Brass nickel-plated
 Type of locking:.....M25
 Suitable for degree of protection (IP):.....IP67

Art.-No.	Dust cover
IP67DFKRJ45FL	Yes
IP67DFKRJ45FLHS	Captive (Service)



IP67 metal adapter, M25, LC Duplex ceramic sleeve

Type of connector connection 1: LC-Duplex
 Type of connector connection 2: LC-Duplex
 Type of housing:Brass nickel-plated
 Type of locking:M25
 Suitable for degree of protection (IP): IP67

Art.-No.	Dust cover
IP67DFKLCDM	Yes
IP67DFKLCDMHS	Captive (Service)



IP67 Cable gland, M25, LC-Duplex

Number of fibres:.....2
 APC-version:.....No
 Cable Ø:.....2.0
 Flame retardant:.....According to EN 50265-2-1
 Halogen free (according to EN 50267-2-3): Yes
 Type of connector connection 1:.....LC-Duplex
 Connector colour 1:.....beige
 Type of connector connection 2:.....LC-Duplex
 Connector colour 2:.....beige
 Jacket Material:.....LSZH
 Stock Lengths: 2.0 - 5.0 - 10 - 20 m

Art.-No.	Colour outer sheath	Fiber type	Category
IP67KVLCDOS2-2,0	yellow	Singlemode	OS2 acc. to ITU-T G.652.D
IP67KVLCDOM3-2,0	aqua	Multimode 50/125	OM3



IP67 Cable gland, M20, USB2.0

Type of housing:Brass nickel-plated
 Type of locking:M20
 Suitable for degree of protection (IP): IP67

Art.-No.	Type of connector connection 1	Type of connector connection 2	Dust cover	Type
IP67KVUSBA-A1,0	USB-A Plug	USB-A Plug		cable gland, 1m
IP67EBUSBA-A0,5FL	USB-A Jack	USB-A Plug	Yes	panel socket, 0,5m
IP67EBUSBA-A0,5FLHS	USB-A Jack	USB-A Plug	Captive (Service)	panel socket, 0,5m



IP67 Cable gland, M25, HDMI2.0

Type of housing:Brass nickel-plated
 Type of locking:M25
 Suitable for degree of protection (IP): IP67

Art.-No.	Type of connector connection 1	Type of connector connection 2	Dust cover	Type
IP67KVHDMIA-A1,0	HDMI Plug	HDMI Plug		cable gland, 1m
IP67EBHDMIA-A1,0FL	HDMI Jack	HDMI Plug	Yes	panel socket, 1m
IP67EBHDMIA-A1,0FLHS	HDMI Jack	HDMI Plug	Captive (Service)	panel socket, 1m



IP67 metal adapter, M20, USB3.0, F-F, A-A

Connection 1:.....USB-A Jack
 Connection 2:.....USB-A Jack
 Type of housing:Brass nickel-plated
 Type of locking:M20
 Suitable for degree of protection (IP): IP67

Art.-No.	Dust cover
IP67DFKUSBFL	Yes
IP67DFKUSBFLHS	Captive (Service)



IP67 metal adapter, M25, HDMI2.0, F-F, A-A

Connection 1:.....HDMI-A Jack
 Connection 2:.....HDMI-A Jack
 Type of housing:Brass nickel-plated
 Type of locking:M25
 Suitable for degree of protection (IP): IP67

Art.-No.	Dust cover
IP67DFKHDMIFL	Yes
IP67DFKHDMIFLHS	Captive (Service)



Free Standing Housing / Wall-Mount Housing	P. 171
LSA Range 1 & 2	P. 172
Overvoltage Protection Range 2	P. 173
LSA Tools	P. 174
VKA / VKU	P. 175
ISDN Patch Panel / Modular Plugs	P. 178
Adapter / Port Doubler	P. 179
Modular Cables / Identifiers	P. 180



Wall-Mounted Distribution Cabinets TWL

Closed sheet steel cabinet with swivel turning handle for profile half-cylinder
 Cable entry at top and bottom via brush terminal
 Colour RAL7035, light grey
 Degree of protection IP40

Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46074.1V2	TWL 300	2 x 18	300	600 mm	600 mm	240 mm	25 kg
46075.1V2	TWL 500	2 x 26	500	600 mm	800 mm	240 mm	29 kg
46076.1V2	TWL 900	2 x 46	900	600 mm	1300 mm	240 mm	35 kg
46077.1V2	TWL 1350	3 x 46	1350	800 mm	1300 mm	240 mm	40 kg



19" Subracks 1U & 3U

With LSA backmount frames
 For accommodating from 3 x 2 to 3 x 5 LSA modules 2/10 10pairs horizontal
 Width 480 mm, depth 100 mm
 RAL9005, jet black

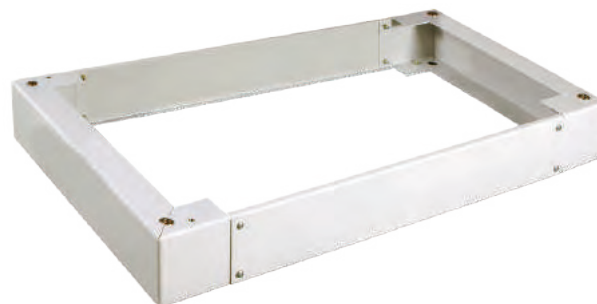
Art.-No.	Description	Modules
46055.2	19" Subrack 1U 60pairs with Backmount Frames	3 x 2
46055.3	19" Subrack 3U 150pairs with Backmount Frames	3 x 5



Profile Half-Cylinders

Profile half-cylinder acc. to DIN 18252 / EN1303
 With push-button for unlocking
 Suitable for EFB standard turning handles (Art.-No. 102179), compact turning handle (Art.-No. 699989) and telecom distributors TWL/TSL

Art.-No.	Description
46086.1	Profile Half-Cylinder Locking 15, with 1 Key Q15
46087.1	Profile Half-Cylinder Locking T3, incl. 2 Keys
46087.2	Profile Half-Cylinder Locking T4, incl. 2 Keys
46087.3	Profile Half-Cylinder for Locking 3524E
46087.4	Profile Half-Cylinder with Push-Button



Plinth for Free-Standing Distribution Cabinet TSL

Plinth for free-standing distribution cabinet TSL

Art.-No.	Suitable for	Width	Height	Depth
46121.1	TSL 1200	600 mm	100 mm	400 mm



Free-Standing Distribution Cabinets TSL

Cabinet with removable side walls, suitable for in-line arrangement
 With turning handle for profile half-cylinder and three-point bar lock
 Cable entry from top via rubber clamp, from bottom via three-part base plate
 Colour RAL7035, light grey
 Protection degree IP54 with cable infeed from bottom, otherwise IP40
 Socket 100/200 mm as accessory

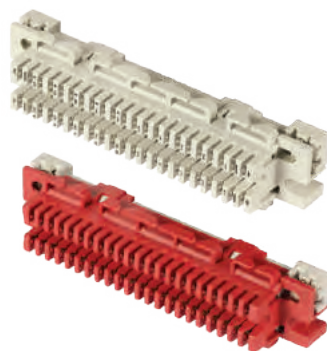
Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46078.1V2	TSL 1200	2 x 72	1200	600 mm	2000 mm	400 mm	98 kg
46079.1V2	TSL 1800	3 x 72	1800	800 mm	2000 mm	400 mm	120 kg
46080.1V2	TSL 2400	4 x 72	2400	1000 mm	2000 mm	400 mm	135 kg



LSA - Connection Modules 170 mm

LSA connection 1/20 and earth modules 1/84 for screw fastening
Fixing dimension 170 mm

Art.-No.	Description
46001.1V2	LSA Connection Module 1/20 20pairs
46002.1V2	LSA Earth Module 1/84 84-pole



LSA - Connection Modules 96 mm

LSA connection 1/10 and earth modules 1/44 for screw fastening
Fixing dimension 96 mm

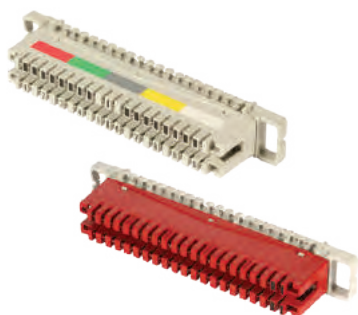
Art.-No.	Description
46001.2	LSA Connection Module 1/10 10pairs
46002.2	LSA Earth Module 1/44 44-pole



Hinged Label Holder

Hinged
One-side printed with 1..10 (46003.2)
One-side printed with 2 x 1..10 (46003.1)

Art.-No.	Description
46003.2	Hinged Label Holder 1/10
46003.1	Hinged Label Holder 1/20



LSA Connection & Disconnection Modules 2/10

For LSA backmount frames / channels
All contacts jumpered with the earth connection

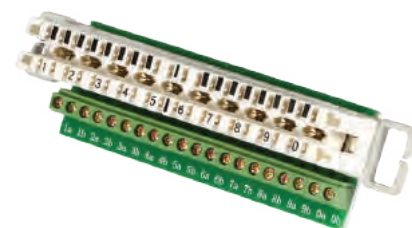
Art.-No.	Description
46005.1	LSA Disconnection Module 2/10 10pairs w/o Colour Code
46005.1F	LSA Disconnection Module 2/10 10pairs with Colour Code
46006.1	LSA Connection Module 2/10 10pairs w/o Colour Code
46006.1F	LSA Connection Module 2/10 10pairs with Colour Code
46007.1	LSA Earth Module 2/38 38-pole



Modular Label Holder 2/10

For snapping onto LSA backmount frames / channels
Not printed

Art.-No.	Description
46008.1	Modular Label Holder 2/10



LSA Adapters Disc. Module/ Screw Contact

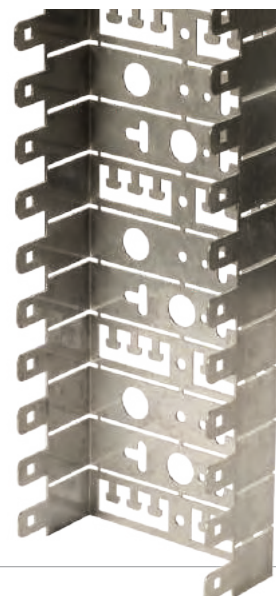
For LSA backmount frames / channels
Disconnection module with 20 screw contacts on the routing side for wires up to 2.5 mm²

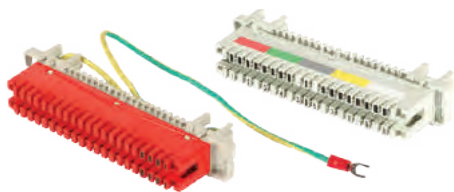
Art.-No.	Description
46085.1	LSA Adapter Disc. Module 10 pairs / Screw Contacts

LSA - Backmount Frames Universal

For LSA modules 2/10 10pairs
Pitch (terminal-terminal distance) 25 mm
The depths are 22 / 30 / 50 mm
Individual modules are easy to cut off from the LSA backmount frame with diagonal cutter by customer, making them universally usable
Number of modules = 50

Art.-No.	Description
46010.50	LSA Back Mount Frame, 50 Modules, D=22 mm, P=25 mm, PU 2 Pcs.
46011.50	LSA Back Mount Frame, 50 Modules, D=30 mm, P=25 mm, PU 2 Pcs.
46012.50	LSA Back Mount Frame, 50 Modules, D=50 mm, P=25 mm, PU 2 Pcs.





LSA - Connection & Disconnection Modules 2/10

For profile rod mounting
All contacts jumpered with the earth connection

Art.-No.	Description
46006.2	LSA Connection Module 2/10 10pairs for Profile Rods, w/o Colour Code
46006.2F	LSA Connection Module 2/10 10pairs for Profile Rods, with Colour Code
46005.2	LSA Disconnection Module 2/10 10pairs for Profile Rods, w/o Colour Code
46005.2F	LSA Disconnection Module 2/10 10pairs for Profile Rods, with Colour Code
46007.2	LSA Earth Module 2/34 34pole for Profile Rods



Hinged Label Holder 2/10

Can be mounted on LSA modules 2/10 10pairs and surge protection magazines
Unprinted
Can be labelled on both sides

Art.-No.	Description
46009.1	Hinged Label Holder 2/10



Profil Modular Label Holder 2/10

For snapping onto profile rods
Unprinted

Art.-No.	Description
46008.2	Profile Modular Label Holder



19" Subrack 3U for LSA Modules 8pairs and 10pairs

With 2 horizontal mounting rods 12 mm stainless steel, depth-adjustable
For accommodation of up to 18 LSA modules 10pairs and 8pairs vertically
Cable infeed from rear or side possible
Rear-sided cable clamping
Earth connection with nut M6 on the side part
Front-sided cable clamping optionally, e.g. for DSLAM cable: Art.-No. 46054.2A
Material stainless steel
Weight 0.5 kg

Art.-No.	Description
46054.2	19" Subrack 3U for LSA Modules 8pairs & 10pairs



LSA Overvoltage Protection Magazine 2/10

46140.1 - 20 arresters per magazine
46141.1 - 10 arresters per magazine

Art.-No.	Type
46140.1	LSA-Overvoltage Protection Magazine 2/10 10pairs 8x6
46141.1	LSA-Overvoltage Protection Magazine 2/10 10pairs 8x13



LSA Surge Arrester UsAg

Gas-filled
Rated discharge current 10 kA

Art.-No.	Type
46142.1	8 x 6 / 90 V / 10 kA
46143.1	8 x 6 / 230 V / 10 kA
46144.1	8 x 6 / 230 V / 10 kA + Failsave
46145.1	8 x 13 / 90 V / 10 kA
46146.1	8 x 13 / 230 V / 10 kA
46147.1	8 x 13 / 230 V / 10 kA + Failsave



Earthing Contact Clip

For overvoltage protection contacting during profile rod installation
Per magazine 2 pieces required

Art.-No.	Description
46148.1	Earth Connection Clip for Profile Rod



Fine Protection 1pair

Overvoltage and overcurrent protection for signal and data lines
Coarsel protection, fine protection, overload protection » Fail-Safe
Integrated overcurrent protection by PTC resistor
Leakage current 10 kA, impulse spark-over voltage 230 V
For direct and alternating voltage
Operating current 150 mA nominal

Art.-No.	Type
46150.24	1pair Fine Protection with Failsafe V= 24V
46150.48	1pair Fine Protection with Failsafe V= 48V
46150.60	1pair Fine Protection with Failsafe V= 60V



Earthing Bar 2/10

For connecting the 1pair fine protection plug to the earth potential
1 x earthing bar required per LSA connection module 2/10

Art.-No.	Description
46152.1	Earthing Bar 2/10



Connection Cord 2/4 4-pole, Plugs for LSA Disconnection-Modules 2/10 10pairs

With 2 LSA plugs 2/4 4-pole, for 2-pole and 4-pole switching

Stock lengths: 1.0 - 2.0 - 3.0 m

Art.-No.	Description
46119.x	Connection Cord 2/4 4-pole, Plugs for LSA Disconnection-Modules 2/10 10pairs



Connection Cord RJ45 - LSA 1Pair

For the connection of 4 wiring telecommunication services into structured cabling systems Assignment 4/5 - 3/6

Stock lengths: 1.0 - 2.0 - 3.0 m

Art.-No.	Description
46130.x	Connection Cord RJ45 - LSA 1pair 2-pole
46131.x	Connection Cord RJ45 - LSA 1pair 4-pole



Disconnection Plug 1Pair

For LSA disconnection modules 2/10 10pairs Disconnects the line path Other colours on request

Art.-No.	Description
46154.1	Disconnection Plug 1pair Red



Disconnection Plug 2/10 10pairs

Cable and routing side can be separated on LSA disconnection modules 2/10 to 10pairs

Art.-No.	Description
46014.1	LSA Disconnection Plug 2/10 10pairs



LSA/IDC Insertion Tool

For applying the cable cores to LSA connection technology For cable diameter 0.4..0.8 mm Simultaneous wire cutting

Art.-No.	Description
39933.1	LSA Insertion Tool



LSA/IDC Insertion Tool for Keystones

Insertion tool for twisted pair cables Especially recommended for UTP keystone jacks

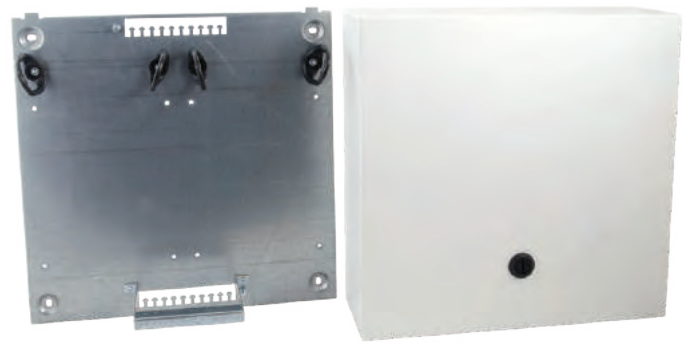
Art.-No.	Description
39931.1	LSA/IDC Insertion Tool for UTP Keystones



LSA/IDC Insertion Tool with Sensor

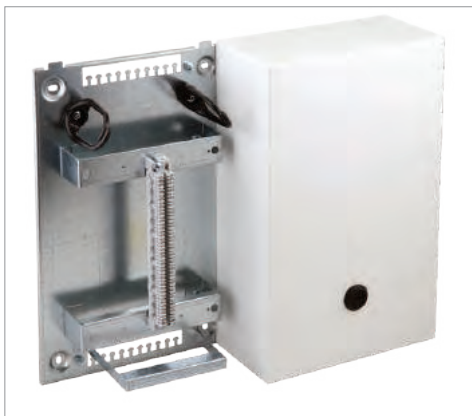
LSA insertion tool for LSA terminals and simultaneous cutting The sensor (only Art.-No. 39951.1) ensures correct positioning of the wire in the LSA/IDC contact

Art.-No.	Description
39951.1	Krone LSA Insertion Tool with Sensor



VKA Housing

Consists of sheet steel box with basic plate and cover with latch
 VKA mounting kits for 10pairs and 20pairs can be screwed on the basic plate
 Cable entries on the bottom and the top of the cover
 Colour of the cover: RAL9016 traffic white
 Protection degree IP30
 Sheet of paper for connection registration
 Advice: weight including mounting kit



Art.-No.	Type	Width	Height	Depth	Weight
46017.1V1	VKA2	200 mm	330 mm	100 mm	2.80 kg
46018.1V1	VKA4	330 mm	330 mm	100 mm	3.22 kg
46019.1V1	VKA8	330 mm	550 mm	100 mm	5.23 kg
46020.1V1	VKA12	550 mm	550 mm	100 mm	9.00 kg



Locking T3 for VKA

With 2 keys

Art.-No.	Description
46040.1	Locking T3/1333 for VKA and VKU with 2 Keys



VKA Mounting Kit 10pairs

Mounting kit for snapping of LSA technology 2/10 10pairs
 Including cable entry protection and set of screws for mounting
 Overvoltage protection magazines mountable (VKA2 50pairs, VKA4 100pairs, VKA8 240pairs, VKA12 380pairs)

Art.-No.	Type	Module Slots	in Pairs
46017.10	VKA2	1 x 7	70
46018.10	VKA4	2 x 7	140
46019.10	VKA8	4 x 7	280
46020.10	VKA12	6 x 7	420



VKA Mounting Kit 20pairs

Mounting kit for screwing of LSA technology 1/20 20pairs
 Including cable entry protection and set of screws for mounting

Art.-No.	Type	Module Slots	in Pairs
46017.20	VKA2	1 x 5	100
46018.20	VKA4	2 x 5	200
46019.20	VKA8	4 x 5	400
46020.20	VKA12	6 x 5	600



VKA with Assembled Mounting Kit 10pairs

Consists of sheet steel box with basic plate and cover with latch
With assembled mounting kit 10pairs (for LSA modules 2/10 10pairs)

Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46017.1V10	VKA2	1 x 7	70	200 mm	330 mm	100 mm	2.8 kg
46018.1V10	VKA4	2 x 7	140	330 mm	330 mm	100 mm	3.22 kg
46019.1V10	VKA8	4 x 7	280	330 mm	550 mm	100 mm	5.23 kg
46020.1V10	VKA12	6 x 7	420	550 mm	550 mm	100 mm	9.0 kg



VKA with Assembled Mounting Kit 20pairs

Consists of sheet steel box with basic plate and cover with latch
With assembled mounting kit 20pairs (for LSA module 1/20 20pairs)

Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46017.1V20	VKA2	1 x 5	100	200 mm	330 mm	100 mm	2.8 kg
46018.1V20	VKA4	2 x 5	200	330 mm	330 mm	100 mm	3.22 kg
46019.1V20	VKA8	4 x 5	400	330 mm	550 mm	100 mm	5.23 kg
46020.1V20	VKA12	6 x 5	600	550 mm	550 mm	100 mm	9,0 kg



VKU with assembled Mounting Kit 20pairs

Consists of sheet steel box with basic plate and cover with latch
With assembled VKU mounting kit 20pairs (for LSA technology 1/20 20pairs)

Art.-No.	Type	Module Slots	in Pairs	Width	Height	Depth	Weight
46017.3	VKU2	3	60	280 mm	380 mm	83 mm	2.8 kg
46018.3	VKU4	5	100	380 mm	380 mm	83 mm	2.8 kg



LSA Minibox 201C 20pairs

Fitted with 2 LSA disconnection modules 2/10 10pairs

Art.-No.	Type	Pairs	Width	Height	Depth	Weight
46053.1	LSA Minibox 201C 20DA	20	120 mm	170 mm	42 mm	0,25 kg



TT Small Distributor Box 1 / 2 / 3 IP54

With LSA backmount frame for LSA connection modules 2/10 10pairs
With screw closure
Protection degree IP54

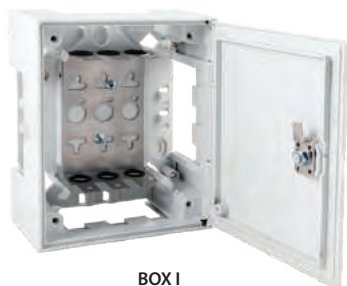
Art.-No.	Type	Pairs	Width	Height	Depth	Weight
46050.2	TT Small Distr. Box 1	30	166 mm	240 mm	99 mm	0.37 kg
46051.1	TT Small Distr. Box 2	50	190 mm	215 mm	90 mm	0.52 kg
46052.1	TT Small Distr. Box 3	100	190 mm	375 mm	115 mm	1.04 kg



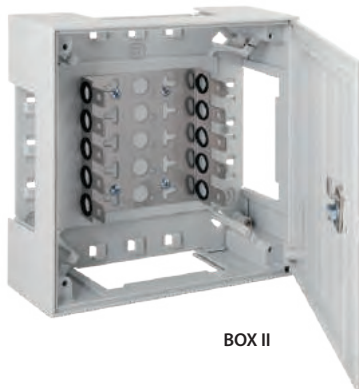
TT Small Distribution Boxes 4 IP54

With LSA backmount frame for LSA connection modules 2/10 10pairs
With lock
Protection degree IP54

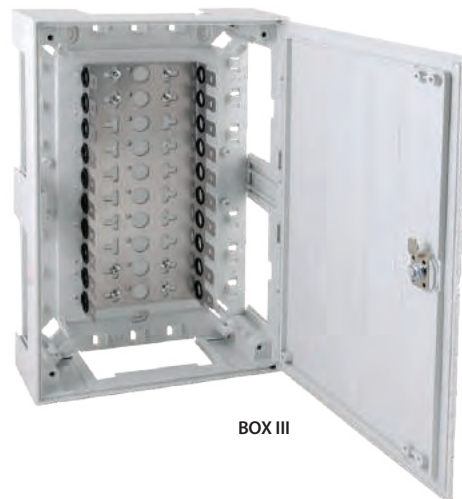
Art.-No.	Type	Pairs	Width	Height	Depth	Weight
46049.1	TT Small Distr. Box 4	20	103 mm	185 mm	90 mm	0.3 kg



BOX I



BOX II



BOX III

Plastic Distribution BOX I / BOX II / BOX III

Plastic distributor, indoor
Protection degree IP30

With 1 x backmount frame for 3/5/10 x LSA connection modules 2/10 10pairs
Incl. cover plates for the all-side prepared cable entries

Art.-No.	Type	in Pairs	Width	Height	Depth	Weight
46025.3	Box I 30pairs with Latch	30	140 mm	170 mm	76 mm	0.5 kg
46025.4	Box I 30pairs with Lock	30	140 mm	170 mm	76 mm	0.5 kg
46025.1	Box II 50pairs with Latch	50	215 mm	215 mm	76 mm	0.83 kg
46025.2	BOX II 50pairs with Lock	50	215 mm	215 mm	76 mm	0.83 kg
46026.1	Box III 100pairs with Latch	100	215 mm	320 mm	76 mm	1.4 kg
46026.2	Box III 100pairs with Lock	100	215 mm	320 mm	76 mm	1.4 kg

Stacking Frame

Necessary for plugging in surge protection
Suitable for Box I/II/III

Art.-No.	Description
46025.5	Stacking Frame for Box I
46027.1	Stacking Frame for Box II
46029.1	Stacking Frame for Box III

Flush-Mount Frame

Flush mounting frame for flush mounting
Suitable for Box I/II/III

Art.-No.	Description
46025.6	Flush Mounting Frame for Box I (46025.3, 46025.4)
46028.1	Flush Mounting frame for Box II (46025.1, 46025.2)
46030.1	Flush Mounting Frame for Box III (46026.1, 46026.2)



Fire Protection Boxes VKA E30

With built-in LSA backmount frame 2/10
Galvanised sheet steel housing

Protection degree IP43

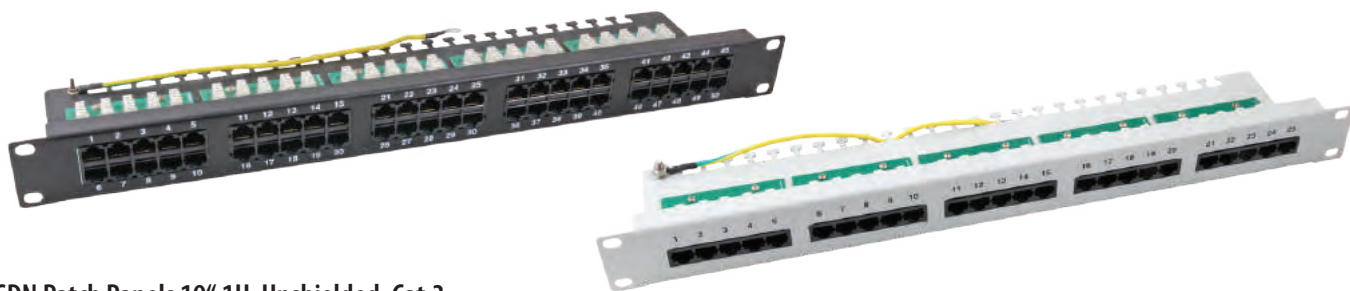
Lining with fire protection panels and intumescence material in cable entry area

Inner depth enables plug-in of surge protection magazines

Tested acc. to DIN 4102 Part 2

Building approval by the DIBT-Berlin Z-86.1-39

Art.-No.	Type	Width	Height	Depth	Module Slots	in Pairs	Cable Entries	Weight
46042.1	VKA E30/20	200 mm	250 mm	130 mm	2	20	2 x PG29, 8 x PG16	5.1 kg
46042.2	VKA E30/60	250 mm	350 mm	130 mm	6	60	2 x PG29, 24 x PG16	7.9 kg
46042.3	VKA E30/100	250 mm	450 mm	130 mm	10	100	2 x PG29, 24 x PG16	10 kg
46042.4	VKA E30/200	450 mm	450 mm	130 mm	20	200	4 x PG29, 40 x PG16	16.3 kg
46042.5	VKA E30/400	450 mm	700 mm	130 mm	40	400	4 x PG29, 40 x PG16	24.2 kg



ISDN Patch Panels 19" 1U, Unshielded, Cat.3

Category 3
 Unshielded RJ45 8(4) jacks
 4-pole LSA IDC terminals
 Assignment: 3-6/4-5
 High packing density
 Strain relief via cable ties

Art.-No.	Description	Number of Ports	Colour	RAL-Number
37588.1	Patch Panel 25 x RJ45 8/4 1U ISDN, RAL7035, Cat. 3	25	Grey	RAL7035
37588SW.1	Patch Panel 25 x RJ45 8/4 1U ISDN, RAL9005, Cat. 3	25	Black	RAL9005
37595.2	Patch Panel 50 x RJ45 8/4 1U ISDN, RAL7035, Cat. 3	50	Grey	RAL7035
37595SW.2	Patch Panel 50 x RJ45 8/4 1U ISDN, RAL9005, Cat.3	50	Black	RAL9005



Modular Plug UTP for Round Cable

Modular-Connector unshielded RJ69 10P10C
 For round cable
 Suitable crimping tool for RJ10/RJ11/RJ12/RJ45: Art.-No. E-MUC410
 Suitable Crimping tool for RJ69: Art.-No. 39945.2

Art.-No.	Description
37517.1-100	Modular-Connector RJ10 UTP, E-MO 4/4 SR, 100 pcs.
37516.1-100	Modular-Connector RJ11 UTP, E-MO 6/4 SR, 100 pcs.
37518.1-100	Modular-Connector RJ12 UTP, E-MO 6/6 SR, 100 pcs.
37519.1-100	Modular-Connector RJ45 UTP, E-MO 8/8 SR, 100 pcs.
37539.1-100	Modular-Connector RJ69 UTP, E-MO 10/10 SR, 100 pcs.



Modular Plug UTP for Flat Cable

Modular-Connector unshielded RJ45 8P4C
 For flat cable
 Suitable crimping tool for RJ10/RJ11/RJ12/RJ45: Art.-No. E-MUC410
 Suitable crimping tool for RJ69: Art.-No. 39945.2

Art.-No.	Description
37512.1-100	Modular-Connector RJ10 UTP, E-MO 4/4 SF, 100 pcs.
37511.1-100	Modular-Connector RJ11 UTP, E-MO 6/4 SF, 100 pcs.
37513.1-100	Modular-Connector RJ12 UTP, E-MO 6/6 SF, 100 pcs.
37514.1-100	Modular-Connector RJ45 UTP, E-MO 8/8 SF, 100 pcs.
37542.1-100	Modular-Connector DEC UTP, E-MO 6/6 SF, 100 pcs.
37673.1-100	Modular-Connector RJ45 UTP, E-MO 8/4 SF, 100 pcs.



RJ45 Strain Relief Boots

Anti-Kink sleeve for 37541.3, 37514.1, 37519.1, 37539.1, 37640.1, 34600.1
 Cable entry max. 6.6 mm

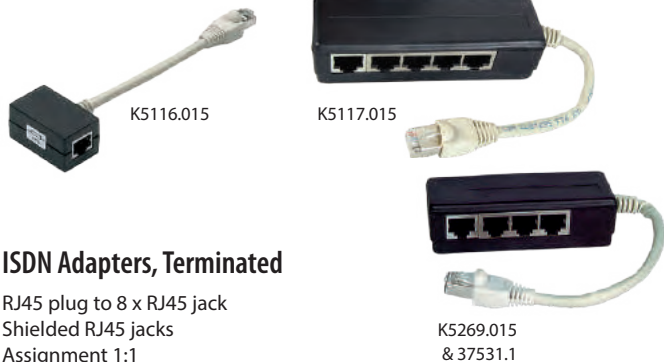
Art.-No.	Description
37546.1-100	Anti-Kink Sleeve RJ45 Beige, with Latch Protection, 100 Pcs.
37546.4-100	Anti-Kink Sleeve RJ45 Black, with Latch Protection, 100 Pcs.
37546.5-100	Anti-Kink Sleeve RJ45 Yellow, with Latch Protection, 100 Pcs.
37546.6-100	Anti-Kink sleeve RJ45 Red, with Latch Protection, 100 Pcs.
37546.7-100	Anti-Kink sleeve RJ45 Blue, with Latch Protection, 100 Pcs.
37546.8-100	Anti-Kink sleeve RJ45 Green, with Latch Protection, 100 Pcs.



Crimping Tool for Modular Plugs

For 4-, 6-, 6-DEC-, 8-, AMP, and shielded RJ45 Far East and for cutting and stripping
 Ideal for field assembly
 Following plugs can be crimped:
 37517.1, 37516.1, 37518.1, 37512.1, 37511.1, 37513.1, 37514.1, 37542.1

Art.-No.	Description
E-MUC410	Crimping Tool for Modular Connectors 4-8 pole



ISDN Adapters, Terminated

RJ45 plug to 8 x RJ45 jack
Shielded RJ45 jacks
Assignment 1:1
Pins 3-6, 4-5 terminated

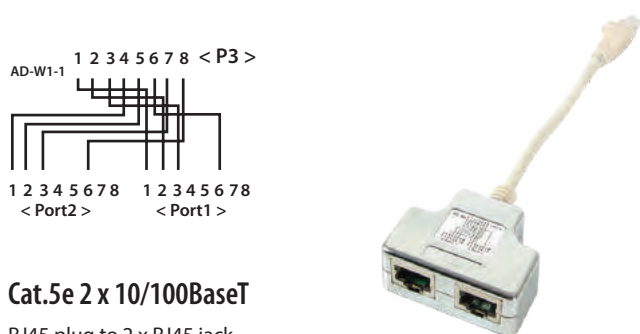
Art.-No.	Description	Colour	Cable Length
37531.1	Multiport-Adapter 1 x RJ45 Plug to 4 x RJ45 Jack	Black	0.15 m
K5116.015	ISDN 2 x Adapter, RJ45 Plug / 2 x RJ45 Jack, Terminated	Black	0.15 m
K5117.015	ISDN 5 x Adapter RJ45 Plug / 5 x RJ45 Jack, Terminated	Black	0.15 m
K5269.015	ISDN 8 x Adapter, RJ45 Plug / 8 x RJ45 Jack, Terminated	Black	0.15 m



ISDN Adapter

Pins 3-6, 4-5 terminated

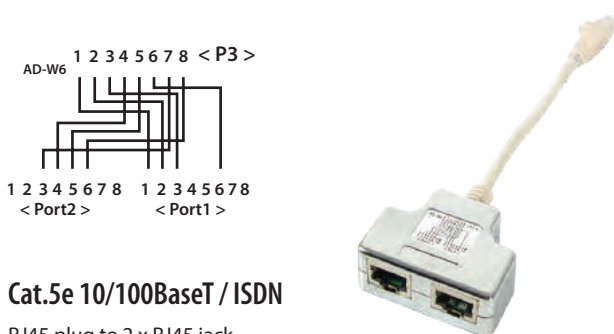
Art.-No.	Description	Colour	Cable Length
K5067.015	ISDN Adapter RJ45 Plug/Jack, Terminated	Black	0.15 m



Cat.5e 2 x 10/100BaseT

RJ45 plug to 2 x RJ45 jack
15 cm cable
Serves as port doubler for the structured cabling

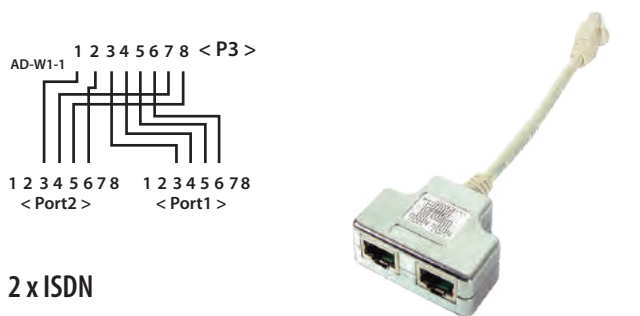
Art.-No.	Description
K5122.015	T-Adapter Cat.5e 2 x 10/100BaseT for Cable Sharing



Cat.5e 10/100BaseT / ISDN

RJ45 plug to 2 x RJ45 jack
15 cm cable
Serves as port doubler for the structured cabling

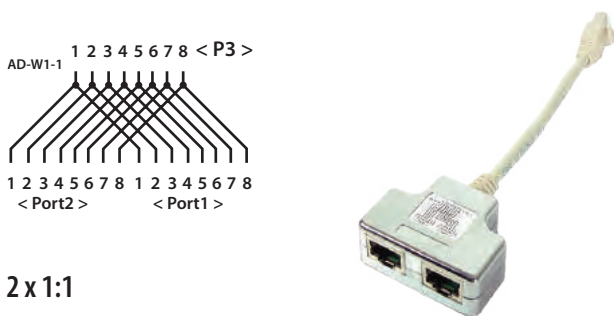
Art.-No.	Description
K5123.015	T-Adapter Cat.5e 10/100BaseT / ISDN for Cable Sharing



2 x ISDN

RJ45 plug to 2 x RJ45 jack
15 cm cable
Serves as port doubler for the structured cabling

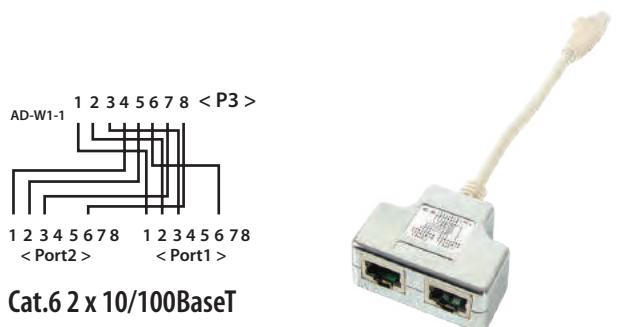
Art.-No.	Description
K5124.015	T-Adapter 2 x ISDN for Cable Sharing



2 x 1:1

RJ45 plug to 2 x RJ45 jack
15 cm cable
Serves as port doubler for the structured cabling

Art.-No.	Description
K5125.015	T-Adapter 1:1 Parallel



Cat.6 2 x 10/100BaseT

RJ45 plug to 2 x RJ45 jack
15 cm cable
Serves as port doubler for the structured cabling

Art.-No.	Description
K5126.015	T-Adapter Cat.6 2 x 10/100BaseT for Cable Sharing



T-Adapter Modular

T adapter for network cables
RJ45 jack / 2 x RJ45 jack
8-pole wired
RJ45 jacks shielded, assignment 1:1

Art.-No.	Description
37528.1	T-Modular-Adapter, RJ45 Jack/2 x Jack 1:1, Shielded

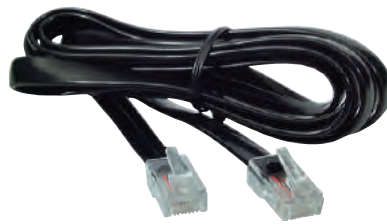


Modular Cable RJ12 - RJ45

Assignment: 1-2, 2-3, 3-4, 4-5, 5-6, 6-7
Flat cable

Stock lengths: 1.0 - 3.0 - 6.0 m

Art.-No.	Description
K2406SW.x	Modular/ISDN Cable RJ12 - RJ45, Black



Modular Cable RJ10 - RJ10

Assignment 1:1
Flat cable

Stock lengths: 0.5 - 1.0 - 1.5 - 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Art.-No.	Description
K2402SW.x	Modular Cable RJ10 - RJ10, Black



Modular Cable RJ45 - RJ45

Assignment 1:1
Flat cable

Stock lengths: 0.5 - 1.0 - 1.5 - 2.0 - 3.0 - 6.0 - 10 m

Art.-No.	Description
K2407SW.x	Modular Cable RJ45 - RJ45, Black



Modular Cable RJ12 - RJ12

Assignment 1:1
Flat cable

Stock lengths: 1.0 - 2.0 - 3.0 - 6.0 - 10 m

Art.-No.	Description
K2404SW.x	Modular Cable RJ12 - RJ12, Black



Modular Cable RJ11 - RJ11

Assignment 1:1
Flat cable

Stock lengths: 0.20 - 0.50 - 1.0 - 1.5 - 2.0 - 3.0 m

Art.-No.	Description
K2413SW.x	Modular Cable RJ11 - RJ11, Black



ISDN Cable RJ45 (8/4) - RJ45 (8/4)

Assignment 3-3, 4-4, 5-5, 6-6
Round cable

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 6.0 - 10 m

Art.-No.	Description
K2408.x	ISDN Cable RJ45 - RJ45, 4-pole, Black



ISDN Cable RJ45 (8/4) - RJ45 (8/4)

Assignment 3-3, 4-4, 5-5, 6-6
Round cable

Stock lengths: 0.5 - 1.0 - 1.5 - 2.0 - 3.0 - 6.0 - 10 m

Art.-No.	Description
K2422.x	ISDN Cable RJ45 - RJ45, 4-pole, Moulded, Black



Connection Wire YV, Ø Core: 2 x 0.5 / 0.9 mm

100 m drum
Other types on request

Art.-No.	Outer Diameter (mm)	Colour Outer Sheath	Cores
46088.100	0.9	red/green	2
46090.100	0.9	white/brown	2
46091.100	0.9	red/blue	2
46092.100	0.9	white/green	2
46093.100	0.9	white/yellow	2
46094.100	0.9	white/blue	2
46095.100	0.9	white/red	2
46096.100	0.9	white/black	2
46097.100	0.9	white/pink	2
46098.100	0.9	black/red	2

Connection Wire YV, Ø Core: 2 x 0.6 / 1.1 mm

100 m drum
Other types on request

Art.-No.	Outer Diameter (mm)	Colour Outer Sheath	Cores
46099.100	1.1	white/brown	2
46100.100	1.1	white/blue	2
46101.100	1.1	white/pink	2
46102.100	1.1	white/green	2
46103.100	1.1	white/red	2
46104.100	1.1	white/black	2
46106.100	1.1	red/black	2
46107.100	1.1	white/yellow	2
46108.100	1.1	red/green	2



Modular Flat Cable Unshielded

According German Post Office standard
1=white, 2=brown, 3=green, 4=yellow, 5=grey,
6=pink, 7=blue, 8=red, 9=black, 10=violet
Unshielded

Art.-No.	Outer Diameter	Colour	Cores
91104.100	2.5 x 5.0 (100 m)	Black	4
91104.500	2.5 x 5.0 (500 m)	Black	4
91106.100	2.0 x 7.0 (100 m)	Black	6
91106.500	2.0 x 7.0 (500 m)	Black	6
91108.100	2.5 x 8.8 (100 m)	Black	8
91108.500	2.5 x 8.8 (500 m)	Black	8
91110.100	2.5 x 10.7 (100 m)	Black	10
91105.100	2.5 x 5.0 (100 m)	Grey	4
91107.100	2.5 x 7.0 (100 m)	Grey	6
91109.100	2.5 x 8.8 (100 m)	Grey	8



Modular Flat Cable Shielded, Black

According German Post Office standard
1=white, 2=brown, 3=green, 4=yellow, 5=grey,
6=pink, 7=blue, 8=red, 9=black, 10=violet
Colour black, with drain wire

Art.-No.	Outer Diameter	Colour	Cores
92704.100	2.5 x 5.2	Black	4
92706.100	2.5 x 7.0	Black	6
92708.100	2.5 x 9.3	Black	8



Modular Flat Cable Unshielded, International, Black

According international standard
1=grey, 2=orange, 3=black, 4=red, 5=green,
6=yellow, 7=blue, 8=brown
Unshielded

Art.-No.	Outer Diameter	Colour	Cores
92804.100	2.5 x 5.0	Black	4
92806.100	2.5 x 7.0	Black	6
92808.100	2.5 x 8.8	Black	8

NETWORK & SERVER CABINETS

// FOR FLEXIBLE USE

19" NETWORK &
SERVER RACKS

// P. 184

1

3

IP- & OUTDOOR
CABINETS // P. 216



**INNER
ACCESSORIES**
// P. 230

**CABLE
MANAGEMENT**
// P. 240

WALL HOUSINGS
// P. 220

4

5

2

ICON LEGEND

// NETWORK & SERVER CABINETS



Protection
IP20



Protection
IP55



Flat Pack



Dismountable



Max. Load
1360 kg



Tool-Less
Mounting



Colour
Jet Black



Colour
Pure White



Colour
Light Grey

19" NETWORK & SERVER RACKS (STANDING CABINETS) //

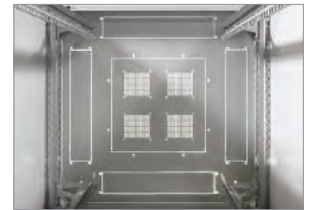


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BLACK VARIANTS ON REQUEST & IN ONLINE-SHOP
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Roof with fan cutouts and surrounding cable entries



Cabinet bottom with pre-assembled earthing bar, surrounding cable entries and pre-punched opening A (380 x 380 mm)

19" Network Cabinets PRO

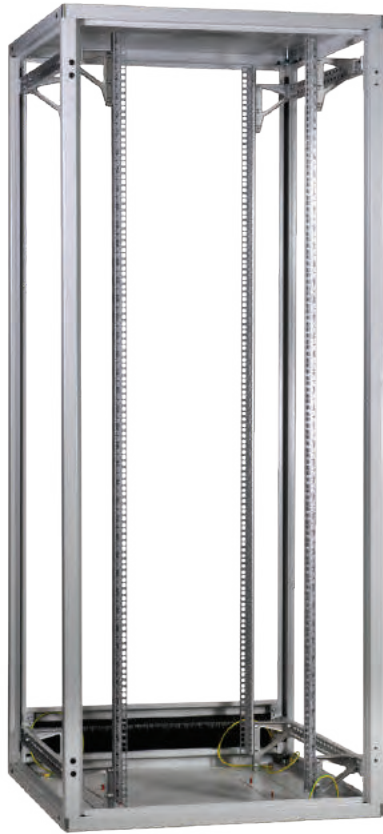
19" network cabinet according to DIN41494
Steel sheet housing with screwed frame, completely pre-assembled, self-ventilated, dismountable
Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, step-less depth-adjustable
Contrariwise numbering of rack units at the 19" profiles
Front door with window of certified safety glass (thickness 5 mm)
Front door with 3-point turning handle (up to 24U 1-point), lockable, incl. profile half-cylinder acc. to DIN18252 / EN 1303
Profile half-cylinder exchangeable by customer (30/10 mm)
Rear door steel, 1-part, shortened, with 2 x latch locking (lock equal to door lock), 3U panel for cable entry below (690 x 67 mm)
Door stop for front and rear door possible left- or right-sided
Detachable side walls with 2 x latch locking (lock equal to the door lock)
Cabinets stackable side-by-side with and without removal of the side walls, baying set (Art.-No. PRO-ANROX)
Roof and bottom with 4/6 pre-punched openings for cable entry (450 x 90 mm), for 600 mm cabinet width cable entry only rear
Roof prepared for accommodation of 2-fan or 4-fan units, bottom with pre-punched opening for filter or cable entry modules
Internal earthing of all cabinet sections
Pre-assembled earthing bar rear-sided in the middle of the cabinet (ports: 2 x M5 + 2 x 8 mm)
Max. load 1000 kg (depths 600 / 800 mm) resp. 1360 kg (depths 1000 / 1200 mm for >24U)
Paint finish RAL7035, light grey
Protection degree IP20
Included accessories: 1 x brush, 1 x set of captive nuts (PU 20 pcs.), earthing bar and earthing cables, 4 x levelling feet M12, 2 x key
Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door
PRO-1866GR.G1SV	18	600 mm	600 mm	896 mm	Glass door 1-part	Steel door 1-part
PRO-1868GR.G1SV	18	600 mm	800 mm	896 mm	Glass door 1-part	Steel door 1-part
PRO-1888GR.G1SV	18	800 mm	800 mm	896 mm	Glass door 1-part	Steel door 1-part
PRO-2466GR.G1SV	24	600 mm	600 mm	1163 mm	Glass door 1-part	Steel door 1-part
PRO-2468GR.G1SV	24	600 mm	800 mm	1163 mm	Glass door 1-part	Steel door 1-part
PRO-2488GR.G1SV	24	800 mm	800 mm	1163 mm	Glass door 1-part	Steel door 1-part
PRO-3366GR.G1SV	33	600 mm	600 mm	1563 mm	Glass door 1-part	Steel door 1-part
PRO-3368GR.G1SV	33	600 mm	800 mm	1563 mm	Glass door 1-part	Steel door 1-part
PRO-3360GR.G1SV	33	600 mm	1000 mm	1563 mm	Glass door 1-part	Steel door 1-part
PRO-3388GR.G1SV	33	800 mm	800 mm	1563 mm	Glass door 1-part	Steel door 1-part
PRO-4266GR.G1SV	42	600 mm	600 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4268GR.G1SV	42	600 mm	800 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4260GR.G1SV	42	600 mm	1000 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4288GR.G1SV	42	800 mm	600 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4280GR.G1SV	42	800 mm	800 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4282GR.G1SV	42	800 mm	1000 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4282GR.G1SV	42	800 mm	1200 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4768GR.G1SV	47	600 mm	800 mm	2186 mm	Glass door 1-part	Steel door 1-part
PRO-4788GR.G1SV	47	800 mm	800 mm	2186 mm	Glass door 1-part	Steel door 1-part
PRO-4780GR.G1SV	47	800 mm	1000 mm	2186 mm	Glass door 1-part	Steel door 1-part
PRO-4782GR.G1SV	47	800 mm	1200 mm	2186 mm	Glass door 1-part	Steel door 1-part

19" Network Cabinet PRO-Advanced, Rear Door with Turning Handle, RAL7035

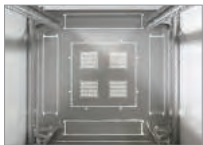
Like PRO, but rear door steel, full height (without cable entry), 1-part, turning handle and 3-point bar-locking

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door
PRO-4288GR.G1S1	42	800 mm	800 mm	1963 mm	Glass door 1-part	Steel door 1-part
PRO-4280GR.G1S1	42	800 mm	1000 mm	1963 mm	Glass door 1-part	Rear door 1-part

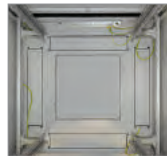


19" Network Cabinet PRO-Modular „Open Rack“

19" rack frame according to DIN41494
 Screwed steel sheet frame, completely pre-assembled, self-ventilated, dismountable
 Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, step-less depth-adjustable
 Contrariwise numbering of rack units at the 19" profiles
 Delivery without front/rear door and side walls for modular, individual configuration
 For installed front and rear door, door stop left or right-sided possible
 Cabinets stackable side-by-side with and without removal of the side walls, baying set (Art.-No. PRO-ANR0X), otherwise screwable via screw set M6
 Roof and bottom with 4/6 pre-punched openings for cable entry (450 x 90 mm), for 600 mm cabinet width cable entry only rear
 Roof prepared for accommodation of 2-fan or 4-fan units, bottom with pre-punched opening for filter or cable entry modules
 Internal earthing of all cabinet sections
 Pre-assembled earthing bar rear-sided in the middle of the cabinet (ports: 2 x M5 + 2 x 8 mm)
 Max. load 1000 kg (depths 600 / 800 mm) resp. 1360 kg (depths 1000 / 1200 mm for >24U)
 Paint finish RAL7035, light grey / RAL9005, jet black
 Protection degree IP20
 Included accessories: 1 x brush, earthing bar pre-installed, 4 x levelling feet M12, 2 x key
 Delivery in transport packaging on disposable pallet



Roof with fan cutouts and surrounding cable entries



Cabinet bottom with pre-assembled earthing bar, surrounding cable entries and pre-punched opening A (380 x 380 mm)

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Colour
PRO-4266GR.0D	42	600 mm	600 mm	1963 mm	Without	Without	RAL7035
PRO-4268GR.0D	42	600 mm	800 mm	1963 mm	Without	Without	RAL7035
PRO-4260GR.0D	42	600 mm	1000 mm	1963 mm	Without	Without	RAL7035
PRO-4262GR.0D	42	600 mm	1200 mm	1963 mm	Without	Without	RAL7035
PRO-4286GR.0D	42	800 mm	600 mm	1963 mm	Without	Without	RAL7035
PRO-4288GR.0D	42	800 mm	800 mm	1963 mm	Without	Without	RAL7035
PRO-4280GR.0D	42	800 mm	1000 mm	1963 mm	Without	Without	RAL7035
PRO-4282GR.0D	42	800 mm	1200 mm	1963 mm	Without	Without	RAL7035
PRO-4266TS.0D	42	600 mm	600 mm	1963 mm	Without	Without	RAL9005
PRO-4268TS.0D	42	600 mm	800 mm	1963 mm	Without	Without	RAL9005
PRO-4260TS.0D	42	600 mm	1000 mm	1963 mm	Without	Without	RAL9005
PRO-4262TS.0D	42	600 mm	1200 mm	1963 mm	Without	Without	RAL9005
PRO-4286TS.0D	42	800 mm	600 mm	1963 mm	Without	Without	RAL9005
PRO-4288TS.0D	42	800 mm	800 mm	1963 mm	Without	Without	RAL9005
PRO-4280TS.0D	42	800 mm	1000 mm	1963 mm	Without	Without	RAL9005
PRO-4282TS.0D	42	800 mm	1200 mm	1963 mm	Without	Without	RAL9005
PRO-4780GR.0D	47	800 mm	1000 mm	1963 mm	Without	Without	RAL7035
PRO-4782GR.0D	47	800 mm	1200 mm	1963 mm	Without	Without	RAL7035
PRO-4780TS.0D	47	800 mm	1000 mm	1963 mm	Without	Without	RAL9005
PRO-4782TS.0D	47	800 mm	1200 mm	1963 mm	Without	Without	RAL9005

Prefix	U	Cabinet Width	Cabinet Depth	Colour	Door Types	Options
PRO-	42	8	8	GR	.G1SV	OS = without Side Walls
	47	6 = 600 mm	6 = 600 mm	TS = RAL9005, jet black	.G1 = Glass door 1-part	
	42	8 = 800 mm	8 = 800 mm	GR = RAL7035, light grey	.S1 = Steel door 1-part / S2 = Steel door 2-part	
	33		0 = 1000 mm		.P1 = Steel door, perforated, 1-part / P2 = Steel door, perforated, 2-part	
	24		2 = 1200 mm		.SV = Steel door 1-part, 2 x Latch (= standard rear door)	
	18				.RW = Rear wall	
					.OD = unequipped cabinet frame with roof („Open Rack“)	

The first and second positions after the point define the front door, the third and fourth position the rear door (resp. -wall). For only one specification, front- and rear door are identical.



Glass door, 1-part
(also available 2-part)

Steel door, 1-part

Steel door, 2-part



Steel door perforated, 1-part

Steel door perforated, 2-part



Doors for Cabinets PRO

Doors for network and server cabinets PRO from 18U up to 47U, widths 600 and 800 mm

Glass doors with window made of certified safety glass (5 mm)

Perforated doors with perforation degree > 80 %

Turning handle with exchangeable profile half-cylinder acc. to DIN 18252 / EN1303 (except of rear door with 2 x latch)

Doors larger 24U with 3-point bar-locking

Doors up to incl. 24U with 1-point latch locking

Door opening angle 180°

Material steel sheet

Paint finish (steel elements) RAL7035, light grey / RAL9005, jet black

Delivery incl. all hinges, screws, earthing cable, 2 x key

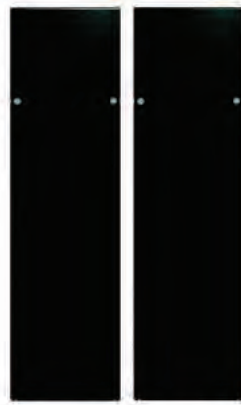
Art.-No.	Description	Width	Colour
PRO-TUR428G1.GR	Door 42U, Glass, 1-Part, Turning Handle	800 mm	RAL7035
PRO-TUR426G1.GR	Door 42U, Glass, 1-Part, Turning Handle	600 mm	RAL7035
PRO-TUR428S1.GR	Door 42U, Steel, 1-Part, Turning Handle	800 mm	RAL7035
PRO-TUR426S1.GR	Door 42U, Steel, 1-Part, Turning Handle	600 mm	RAL7035
PRO-TUR428SV.GR	Door 42U, Steel, 1-Part, 2 x Latch, Rear Door	800 mm	RAL7035
PRO-TUR426SV.GR	Door 42U, Steel, 1-Part, 2 x Latch, Rear Door	600 mm	RAL7035
PRO-TUR428S2.GR	Door 42U, Steel, 2-Part, Turning Handle	800 mm	RAL7035
PRO-TUR428P1.GR	Door 42U, Steel perf., 1-Part, Turning Handle	800 mm	RAL7035
PRO-TUR426P1.GR	Door 42U, Steel perf., 1-Part, Turning Handle	600 mm	RAL7035
PRO-TUR428P2.GR	Door 42U, Steel perf., 2-Part, Turning Handle	800 mm	RAL7035

Art.-No.	Description	Width	Colour
PRO-TUR428G1.TS	Door 42U, Glass, 1-Part, Turning Handle	800 mm	RAL9005
PRO-TUR426G1.TS	Door 42U, Glass, 1-Part, Turning Handle	600 mm	RAL9005
PRO-TUR428S1.TS	Door 42U, Steel, 1-Part, Turning Handle	800 mm	RAL9005
PRO-TUR426S1.TS	Door 42U, Steel, 1-Part, Turning Handle	600 mm	RAL9005
PRO-TUR428SV.TS	Door 42U, Steel, 1-Part, 2 x Latch, Rear Door	800 mm	RAL9005
PRO-TUR426SV.TS	Door 42U, Steel, 1-Part, 2 x Latch, Rear Door	600 mm	RAL9005
PRO-TUR428S2.TS	Door 42U, Steel, 2-Part, Turning Handle	800 mm	RAL9005
PRO-TUR428P1.TS	Door 42U, Steel perf., 1-Part, Turning Handle	800 mm	RAL9005
PRO-TUR426P1.TS	Door 42U, Steel perf., 1-Part, Turning Handle	600 mm	RAL9005
PRO-TUR428P2.TS	Door 42U, Steel perf., 2-Part, Turning Handle	800 mm	RAL9005

ALSO VARIANTS WITH PERFORATION OR ONLY TO OPEN FROM INSIDE AVAILABLE



Side wall for PRO 42U, D=800, RAL7035



Side wall for PRO 42U, D=1200, 2-part, RAL9005, 2 Parts, each corresponding to side wall 600 mm



Side Walls for PRO

Side walls for network and server cabinets PRO

Available from 18U up to 47U in depths 600 up to 1200 mm

Note: depth 1200 mm consisting of 2 elements 600 mm each

With 2 x latch locking (locking T3 / 1333)

Also suitable as rear wall

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Scope of delivery: side wall, 1 x key, earthing cable

Art.-No.	Description	For Cabinet Depth	Colour
PRO-W426E.GR	Side Wall 42U, 1-Part	600 mm	RAL7035
PRO-W428E.GR	Side Wall 42U, 1-Part	800 mm	RAL7035
PRO-W420E.GR	Side Wall 42U, 1-Part	1000 mm	RAL7035
PRO-W422Z.GR	Side Wall 42U, 2-Part	1200 mm	RAL7035
PRO-W426E.TS	Side Wall 42U, 1-Part	600 mm	RAL9005
PRO-W428E.TS	Side Wall 42U, 1-Part	800 mm	RAL9005
PRO-W420E.TS	Side Wall 42U, 1-Part	1000 mm	RAL9005
PRO-W422Z.TS	Side Wall 42U, 2-Part	1200 mm	RAL9005

Prefix	Type	U	Cabinet Depth	Type	Colour
PRO-	W	42	8	E	.GR
	W = Wall	47	6 = 600 mm	E = 1-Part	.GR = RAL7035, light grey
		42	8 = 800 mm	Z = 2-Part	
		33	0 = 1000 mm	EI = 1-Part, Opening Only From Inside	.TS = RAL9005, jet black
		24	2 = 1200 mm	EP = 1-Part, Perforated	
		18			

Side walls for cabinet depths 600 mm, 800 mm and 1000 mm consisting of one part. Side walls for cabinet depth 1200 mm consisting of 2 parts 600 mm each.



GREY VARIANTS ON REQUEST & IN ONLINE-SHOP www.efb-elektronik.de/en

INFORM NOW AND DOWNLOAD BROCHURE!



19" Server Cabinets PRO

19" server cabinet according to DIN41494
 Steel sheet housing with screwed frame, completely pre-assembled, self-ventilated, detachable
 Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, step-less depth-adjustable
 Contrariwise numbering of rack units at the 19" profiles
 Front and rear door with 3-point turning handle (up to 24U 1-point), lockable, incl. profile half-cylinder acc. to DIN18252 / EN 1303
 Profile half-cylinder exchangeable by customer (30/10 mm)
 Door stop for front and rear door possible left- or right-sided
 Detachable side walls with 2 x latch locking (lock equal to the door lock)
 Cabinets stackable side-by-side with and without removal of the side walls, baying set (Art.-No. PRO-ANR0X), otherwise screwable via screw set M6
 Roof and bottom with 4/6 pre-punched openings for cable entry (450 x 90 mm), for 600 mm cabinet width cable entry only rear
 Roof prepared for accommodation of 2-fan or 4-fan units, bottom with pre-punched opening for filter or cable entry modules
 Internal earthing of all cabinet sections
 Pre-assembled earthing bar rear-sided in the middle of the cabinet (ports: 20 x M5 + 2 x 8 mm)
 Max. load 1000 kg (depths 600 / 800 mm) resp. 1360 kg (depths 1000 / 1200 mm for >24U)
 Paint finish RAL9005, jet black
 Protection degree IP20
 Included accessories: 1 x brush, 1 x set of captive nuts (PU 20 pcs.), earthing bar and earthing cables, 4 x levelling feet M12, 2 x key
 Delivery in transport packaging on disposable pallet



Roof with fan cutouts and surrounding cable entries



Cabinet bottom with pre-assembled earthing bar, surrounding cable entries and pre-punched opening A (380 x 380 mm)

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door
PRO-2460TS.P1	24	600 mm	1000 mm	1163 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4260TS.P1	42	600 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4262TS.P1	42	600 mm	1200 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4288TS.P1	42	800 mm	800 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4288TS.P2	42	800 mm	800 mm	1963 mm	Steel perforated 2-part	Steel perforated 2-part
PRO-4280TS.P1	42	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4280TS.P1P2	42	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 2-part
PRO-4280TS.P2	42	800 mm	1000 mm	1963 mm	Steel perforated 2-part	Steel perforated 2-part
PRO-4282TS.P1	42	800 mm	1200 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4282TS.P1P2	42	800 mm	1200 mm	1963 mm	Steel perforated 1-part	Steel perforated 2-part
PRO-4282TS.P2	42	800 mm	1200 mm	1963 mm	Steel perforated 2-part	Steel perforated 2-part
PRO-4780TS.P1	47	800 mm	1000 mm	2186 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4780TS.P1P2	47	800 mm	1000 mm	2186 mm	Steel perforated 1-part	Steel perforated 2-part
PRO-4780TS.P2	47	800 mm	1000 mm	2186 mm	Steel perforated 2-part	Steel perforated 2-part
PRO-4782TS.P1	47	800 mm	1200 mm	2186 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-4782TS.P1P2	47	800 mm	1200 mm	2186 mm	Steel perforated 1-part	Steel perforated 2-part
PRO-4782TS.P2	47	800 mm	1200 mm	2186 mm	Steel perforated 2-part	Steel perforated 2-part



GREY VARIANTS
ON REQUEST &
IN ONLINE-SHOP
www.efb-elektronik.de/en



19" Co-Location Racks PRO

19" network cabinet according to DIN 41494
Steel sheet housing with screwed frame, completely pre-assembled, self-ventilated
1, 2, 3 or 4 boxes for individual access
Every box with independent cable ducts left and right for cable entry from top or bottom
Inside front and rear 4 x 19" profiles per box (2 front, 2 rear), galvanised, step-less depth-adjustable
Numbering of height units at the profiles
Front- and rear doors steel, perforated, 1-part
Doors with 1-point turning handle, lockable, incl. profile half-cylinder acc. to DIN 18252 / EN 1303
Profile half-cylinder exchangeable by customer (30/10 mm)
Door stop left and right-sided possible
Detachable side walls with 2 x latch locking (lock equal to door lock)
Side walls optional available perforated
Cabinets stackable side-by-side with and without side wall via baying set PRO-ANR01
Roof and bottom with covered cutouts for cable entry (left/right) and for accommodation of fan unit PRO-LFD02BO.xx
Intermediate bottoms sealed to side walls
Internal earthing of all cabinet parts
Max. load 600 kg
Paint finish RAL7035, light grey / RAL9005, jet black
Protection degree IP20
Included accessories: 1 x set of captive nuts (PU 20 pcs.), 4 x Leveling feet M12, 2 x key
Delivery in transport packaging on disposable pallet



Lateral cable ducts optionally from top or bottom side possible.

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door
PRO-CL1-4280TS.P1	1 x 42	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL2-4280TS.P1	2 x 20	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL2-4280TS.P2	2 x 20	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL3-4280TS.P1	3 x 13	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL4-4280TS.P1	4 x 9	800 mm	1000 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL4-4288TS.P1	4 x 9	800 mm	800 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL2-4288TS.P1	2 x 20	800 mm	800 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part
PRO-CL1-4288TS.P1	1 x 42	800 mm	800 mm	1963 mm	Steel perforated 1-part	Steel perforated 1-part



The cage nut is inserted from front side with a 45° rotation in the profile

Set of Captive Nuts, 50 x M6 for Front Mounting

For front-sided mounting into the 19" profile
Easy and fast - no more wounded fingers!
Set of 50 x screw M6 x 20 mm, washer and cage nut
Material steel, nylon

Art.-No.	Description
691102	Set of Captive Nuts, 50 x M6 for Front Mounting
691104	Set of Captive Nuts, 50 x M6 Torx for Front Mounting



Line-Up Connectors, 4 Pcs. in Set

Connection set for connection of cabinets PRO at the lateral openings in roof and bottom

Usable with and without side walls

Also suitable for connection of server cabinets e.g. with side coolers or In-Row coolers

1 set suitable for connection of 2 cabinets

Scope of delivery: 4 x screw M8, 4 x nut M8, 8 x washer

Art.-No.	Description
PRO-ANR01	Line-Up Connector for PRO, Set of 4 Pcs.



NOTE ON USE WITH SIDE WALLS:

For this purpose, the walls must be ordered and manufactured with a hole or provided with a hole on site - please contact us!

Line-Up Clamping Connector Set

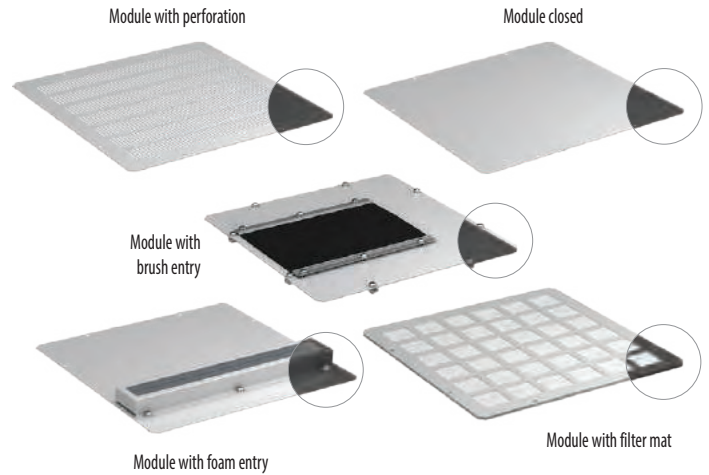
Clamp connector for raising the stability of lined-up cabinets PRO

Recommended for load over 400 kg

Suitable for use with and without side walls

Scope of delivery: 1 set consisting of 4 x clamp connector

Art.-No.	Description
PRO-ANR02	Line-Up Clamping Connector for PRO, Set of 4 Pcs.



Additional Roof with Cable Entries for PRO

For aesthetic supplement and covering of roof ventilation openings of the cabinet

Cable entries rear-sided resp. lateral (see sketch)

Material steel sheet, height 40 mm

Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Width	Depth	Colour
PRO-DCH66B.GR	Additional Roof H=40 mm	600 mm	600 mm	RAL7035
PRO-DCH68B.GR	Additional Roof H=40 mm	600 mm	800 mm	RAL7035
PRO-DCH60B.GR	Additional Roof H=40 mm	600 mm	1000 mm	RAL7035
PRO-DCH62B.GR	Additional Roof H=40 mm	600 mm	1200 mm	RAL7035
PRO-DCH86B.GR	Additional Roof H=40 mm	800 mm	600 mm	RAL7035
PRO-DCH88B.GR	Additional Roof H=40 mm	800 mm	800 mm	RAL7035
PRO-DCH80B.GR	Additional Roof H=40 mm	800 mm	1000 mm	RAL7035
PRO-DCH82B.GR	Additional Roof H=40 mm	800 mm	1200 mm	RAL7035
PRO-DCH66B.TS	Additional Roof H=40 mm	600 mm	600 mm	RAL9005
PRO-DCH68B.TS	Additional Roof H=40 mm	600 mm	800 mm	RAL9005
PRO-DCH60B.TS	Additional Roof H=40 mm	600 mm	1000 mm	RAL9005
PRO-DCH62B.TS	Additional Roof H=40 mm	600 mm	1200 mm	RAL9005
PRO-DCH86B.TS	Additional Roof H=40 mm	800 mm	600 mm	RAL9005
PRO-DCH88B.TS	Additional Roof H=40 mm	800 mm	800 mm	RAL9005
PRO-DCH80B.TS	Additional Roof H=40 mm	800 mm	1000 mm	RAL9005
PRO-DCH82B.TS	Additional Roof H=40 mm	800 mm	1200 mm	RAL9005



Bottom Modules for PRO

Module inserts for cabinet bottom in cabinets PRO

Suitable for opening 380 x 380 mm (type A, see sketch)

Various variants available:

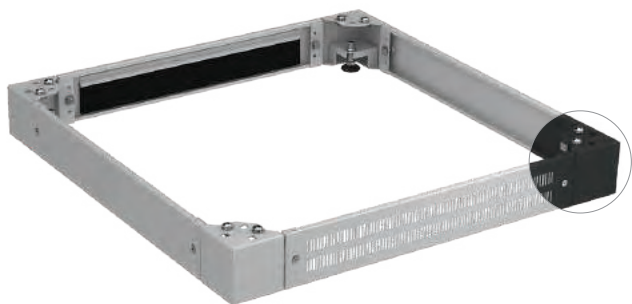
Closed, perforated, with filter mat, with brush, with foam, with filter and foam

Material steel sheet

Paint finish RAL7035, light grey / RAL9005, jet black

Delivery incl. mounting material

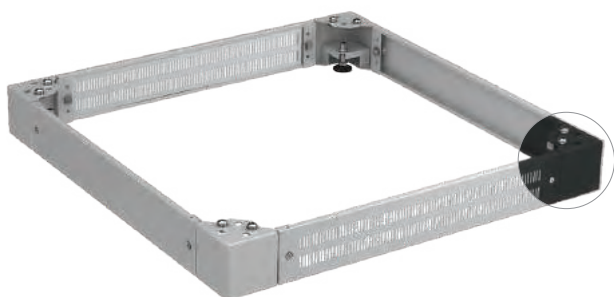
Art.-No.	Description	Colour
PRO-MOD01A.GR	Module, Closed	RAL7035
PRO-MOD02A.GR	Module with Perforation	RAL7035
PRO-MOD03A.GR	Module with Filter Mat	RAL7035
PRO-MOD04A.GR	Module with Brush Entry	RAL7035
PRO-MOD05A.GR	Module with Foam Entry	RAL7035
PRO-MOD01A.TS	Module, Closed	RAL9005
PRO-MOD02A.TS	Module with Perforation	RAL9005
PRO-MOD03A.TS	Module with Filter Mat	RAL9005
PRO-MOD04A.TS	Module with Brush Entry	RAL9005
PRO-MOD05A.TS	Module with Foam Entry	RAL9005



Plinth 100 mm for Cabinets PRO

Consisting of 4 very solid, levelable plinth corners and 4 covers
 Front cover perforated, rear cover with cable entry via brush
 Side covers closed
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery unassembled, incl. mounting material

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOK66PB.GR	Plinth H=100 mm	600 mm	600 mm	RAL7035
PRO-SOK68PB.GR	Plinth H=100 mm	600 mm	800 mm	RAL7035
PRO-SOK60PB.GR	Plinth H=100 mm	600 mm	1000 mm	RAL7035
PRO-SOK62PB.GR	Plinth H=100 mm	600 mm	1200 mm	RAL7035
PRO-SOK86PB.GR	Plinth H=100 mm	800 mm	600 mm	RAL7035
PRO-SOK88PB.GR	Plinth H=100 mm	800 mm	800 mm	RAL7035
PRO-SOK80PB.GR	Plinth H=100 mm	800 mm	1000 mm	RAL7035
PRO-SOK82PB.GR	Plinth H=100 mm	800 mm	1200 mm	RAL7035
PRO-SOK66PB.TS	Plinth H=100 mm	600 mm	600 mm	RAL9005
PRO-SOK68PB.TS	Plinth H=100 mm	600 mm	800 mm	RAL9005
PRO-SOK60PB.TS	Plinth H=100 mm	600 mm	1000 mm	RAL9005
PRO-SOK62PB.TS	Plinth H=100 mm	600 mm	1200 mm	RAL9005
PRO-SOK86PB.TS	Plinth H=100 mm	800 mm	600 mm	RAL9005
PRO-SOK88PB.TS	Plinth H=100 mm	800 mm	800 mm	RAL9005
PRO-SOK80PB.TS	Plinth H=100 mm	800 mm	1000 mm	RAL9005
PRO-SOK82PB.TS	Plinth H=100 mm	800 mm	1200 mm	RAL9005



Plinth 100 mm, Perforated, for Cabinets PRO

Consisting of 4 very solid, levelable plinth corners and 4 covers
 Front and rear cover perforated
 Side covers closed
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery unassembled, incl. mounting material

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOK88PP.GR	Plinth H=100 mm, Perforated	800 mm	800 mm	RAL7035
PRO-SOK88PP.TS	Plinth H=100 mm, Perforated	800 mm	800 mm	RAL9005



Tilt Protection, Slideable

Tilt protection for plinths of cabinet series PRO
 Consisting of extendable support frame and two guide rails
 Suitable for plinth heights 100 mm and 200 mm
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Included in delivery: 1 x tilt protection incl. mounting accessories

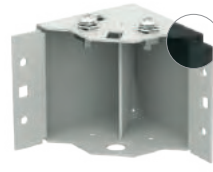
Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-KIS60.GR	Tilt Protection, Slideable for PRO	600 mm	1000 mm	RAL7035
PRO-KIS80.GR	Tilt Protection, Slideable for PRO	800 mm	1000 mm	RAL7035
PRO-KIS60.TS	Tilt Protection, Slideable for PRO	600 mm	1000 mm	RAL9005
PRO-KIS80.TS	Tilt Protection, Slideable for PRO	800 mm	1000 mm	RAL9005



Plinth corner height 100 mm, levelable



Plinth corner height 200 mm, levelable



Plinth corner height 100 mm, fixed height



Plinth corner height 200 mm, fixed height



4 Plinth Corners PRO

Set of 4 very stable plinth corners
 Plinth height 100 mm / 200 mm, levelable or fix
 Suitable for individual assembly with plinth covers PRO-SOBxx
 Fixed variante suitable for screwing at the floor and for use with vibration dampers PRO-VIB01
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
PRO-SOE100N.GR	4 Plinth Corners, Levelable, H=100 mm	RAL7035
PRO-SOE100N.TS	4 Plinth Corners, Levelable, H=100 mm	RAL9005
PRO-SOE200N.GR	4 Plinth Corners, Levelable, H=200 mm	RAL7035
PRO-SOE200N.TS	4 Plinth Corners, Levelable, H=200 mm	RAL9005
PRO-SOE100F.GR	4 Plinth Corners, Fixed, H=100 mm	RAL7035
PRO-SOE100F.TS	4 Plinth Corners, Fixed, H=100 mm	RAL9005
PRO-SOE200F.GR	4 Plinth Corners, Fixed, H=200 mm	RAL7035
PRO-SOE200F.TS	4 Plinth Corners, Fixed, H=200 mm	RAL9005



Plinth Cover PRO, with Brush

Covers for combination with plinth corners PRO-SOExx
 Suitable for use at all 4 corners of the plinth (front/rear/left/right)
 Material steel sheet
 Scope of delivery: 1 cover incl. mounting accessories

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOB06B.GR	Plinth Cover for PRO, with Brush	600 mm	600 mm	RAL7035
PRO-SOB08B.GR	Plinth Cover for PRO, with Brush	800 mm	800 mm	RAL7035
PRO-SOB10B.GR	Plinth Cover for PRO, with Brush	1000 mm	1000 mm	RAL7035
PRO-SOB12B.GR	Plinth Cover for PRO, with Brush	1200 mm	1200 mm	RAL7035
PRO-SOB06B.TS	Plinth Cover for PRO, with Brush	600 mm	600 mm	RAL9005
PRO-SOB08B.TS	Plinth Cover for PRO, with Brush	800 mm	800 mm	RAL9005
PRO-SOB10B.TS	Plinth Cover for PRO, with Brush	1000 mm	1000 mm	RAL9005
PRO-SOB12B.TS	Plinth Cover for PRO, with Brush	1200 mm	1200 mm	RAL9005



Plinth Cover PRO, Perforated

Covers for combination with plinth corners PRO-SOExx
 Suitable for use at all 4 corners of the plinth (front/rear/left/right)
 Material steel sheet
 Scope of delivery: 1 cover incl. mounting accessories

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOB06P.GR	Plinth Cover for PRO, Perforated	600 mm	600 mm	RAL7035
PRO-SOB08P.GR	Plinth Cover for PRO, Perforated	800 mm	800 mm	RAL7035
PRO-SOB10P.GR	Plinth Cover for PRO, Perforated	1000 mm	1000 mm	RAL7035
PRO-SOB12P.GR	Plinth Cover for PRO, Perforated	1200 mm	1200 mm	RAL7035
PRO-SOB06P.TS	Plinth Cover for PRO, Perforated	600 mm	600 mm	RAL9005
PRO-SOB08P.TS	Plinth Cover for PRO, Perforated	800 mm	800 mm	RAL9005
PRO-SOB10P.TS	Plinth Cover for PRO, Perforated	1000 mm	1000 mm	RAL9005
PRO-SOB12P.TS	Plinth Cover for PRO, Perforated	1200 mm	1200 mm	RAL9005



Plinth Cover PRO, Full

Covers for combination with plinth corners PRO-SOExx
 Suitable for use at all 4 corners of the plinth (front/rear/left/right)
 Material steel sheet
 Scope of delivery: 1 cover incl. mounting accessories

Art.-No.	Description	For Cabinet Width	For Cabinet Depth	Colour
PRO-SOB06V.GR	Plinth Cover for PRO, Full	600 mm	600 mm	RAL7035
PRO-SOB08V.GR	Plinth Cover for PRO, Full	800 mm	800 mm	RAL7035
PRO-SOB10V.GR	Plinth Cover for PRO, Full	1000 mm	1000 mm	RAL7035
PRO-SOB12V.GR	Plinth Cover for PRO, Full	1200 mm	1200 mm	RAL7035
PRO-SOB06V.TS	Plinth Cover for PRO, Full	600 mm	600 mm	RAL9005
PRO-SOB08V.TS	Plinth Cover for PRO, Full	800 mm	800 mm	RAL9005
PRO-SOB10V.TS	Plinth Cover for PRO, Full	1000 mm	1000 mm	RAL9005
PRO-SOB12V.TS	Plinth Cover for PRO, Full	1200 mm	1200 mm	RAL9005



Application example

Vibration Damper for PRO

Vibration damper for use under the plinths of cabinet series PRO
 Additional screwing of the plinth corners an the floor is recommended
 Suitable for use with plinths corners PRO-SOE100F.xx and PRO-SOE200F.xx
 Material rubber
 Included in delivery 4 x vibration damper

Art.-No.	Description
PRO-VIB01	Vibration Damper, Set 4 Pieces



Castor Set for PRO, Max. Load 400 kg

Castor set for cabinet series PRO
 Max. load 400 kg, height 108 mm
 Scope of delivery 2 x castor without brake, 2 x castor with brake, mounting accessories

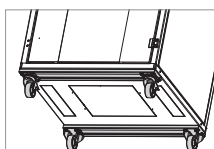
Art.-No.	Description
PRO-ROL01	Castor Set for PRO, max. Load 400 kg



Castor Set for PRO, Max. Load 600 kg

Castor set for cabinet series PRO
 Mounting of support rails across below the cabinet
 Max. load 600 kg
 Total height 160 mm (support rails 31 mm + castors 129 mm)
 Scope of delivery 2 x castor without brake, 2 x castor with brake, 2 x support rail, mounting accessories

Art.-No.	Description	Width	Colour
PRO-ROL026.GR	Castor Set for PRO, max. Load 600 kg	600 mm	RAL7035
PRO-ROL028.GR	Castor Set for PRO, max. Load 600 kg	800 mm	RAL7035



Mounting of the rails is done across the cabinet bottom



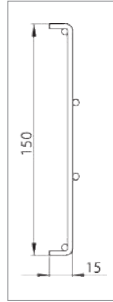
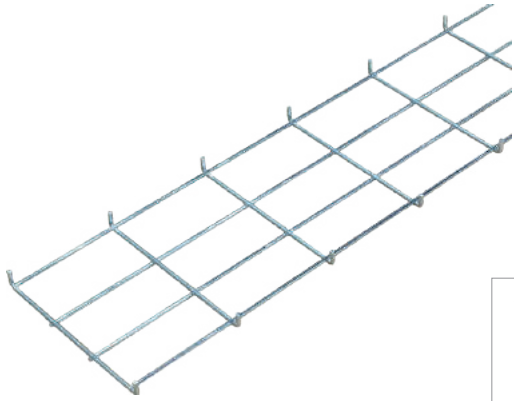
Leveling Feet M12x40, Set 4 Pieces

Height adjustable 25 .. 35 mm
 Thread M12 x 40, incl. locknuts
 Adjustment possible by 19 mm wrench and Allen key 5 mm

Art.-No.	Description
PRO-NIV01	Leveling Feet M12, Set of 4 Pieces

NEED SUPPORT?
 DATA SHEETS & MANUALS YOU'LL FIND
 IN OUR ONLINE SHOP!

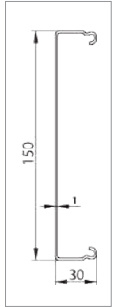




Vertical Cable Tray, Mesh

For vertical cable routing in the cabinet
 Mounting at the lateral depth rails
Note: for 600 mm cabinet width the cable tray fits in the space between depth rail and side wall
 Other U-types available on request
 Material steel sheet, galvanised
 Scope of delivery: 1 x cable tray incl. mounting accessories

Art.-No.	Description	For Cabinet Height
PRO-KRI42G	Vertical Cable Tray for PRO, Mesh	40 - 42 U
PRO-KRI47G	Vertical Cable Tray for PRO, Mesh	45 - 47 U



Vertical Cable Tray, Steel Sheet

For vertical cable routing in the cabinet
 Mounting at the lateral depth rails
Note: for 600 mm cabinet width only mountable at the inner side of the depth rail (fits not between depth rail and side wall)
 Other U-variants available on request
 Material steel sheet, galvanised
 Scope of delivery: 1 x cable tray incl. mounting accessories

Art.-No.	Description	For Cabinet Height
PRO-KRI42B	Vertical Cable Tray for PRO, Steel Sheet	40 - 42 U
PRO-KRI47B	Vertical Cable Tray for PRO, Steel Sheet	45 - 47 U



Application example
 (Delivery without cabinet)



Swing Frame for PRO, Asymmetric

19" swing frame for mounting in 800 mm wide cabinets PRO
 Usable height 40U
 Max. mounting depth 440 mm due to asymmetrical construction
 With door fixing and locking with 2 x latch
 Frame stop left and right possible due to turn around 180°
 Opening angle max. 120°
 Max. load 150 kg
 Material Steel sheet, steel profiles
 Paint finish RAL7035, light grey

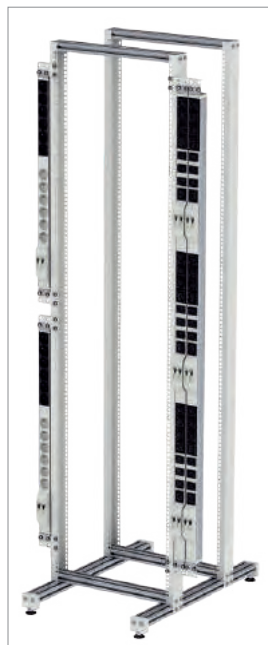
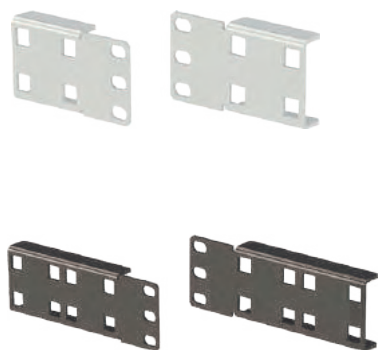
Art.-No.	Description	For Cabinet Height	Colour
PRO-SWR428A.GR	Swing Frame for PRO	42U	RAL7035



19" Mounting Plate for 42U

Base plate for mounting of various devices in the cabinet
 Mounting at the 19" level
 Material steel sheet aluzinc, thickness 3 mm
 Delivery incl. mounting material

Art.-No.	Description	For Cabinet Height	Colour
PRO-MOP428	Mounting Plate for PRO	42U	RAL7035



Application example
(Delivery without rack)



PDU Holder for PRO, Set 2 Pieces

For vertical mounting of socket strips (PDU) lateral at 19" profiles and racks
 Only for cabinet depth 800 mm
 Available in variants 1-way (for 1 PDU) and 2-way (for 2 PDU beside eachother)
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery 2 x PDU holder incl. mounting material

Art.-No.	Description	Colour
PRO-PDU01.GR	PDU Holder 1-Way für PRO, Set of 2	RAL7035
PRO-PDU01.TS	PDU Holder 1-Way für PRO, Set of 2	RAL9005
PRO-PDU02.TS	PDU Holder 2-Way für PRO, Set of 2	RAL9005



Application example
(Delivery without cabinet)

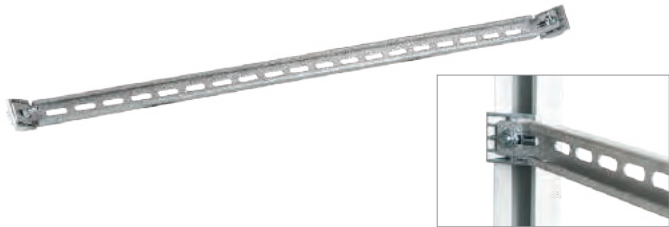
PDU Carrier 42U, for PRO

For vertical mounting of socket strips (PDU) in cabinets PRO in width 800 mm
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery 1 x PDU carrier incl. mounting material
 Other U on request

Art.-No.	Description	For Cabinet Height	Colour
PRO-PDU03.GR	PDU Carrier for PRO	42U	RAL7035
PRO-PDU03.TS	PDU Carrier for PRO	42U	RAL9005



SUITABLE SOCKET STRIPS/PDUs
 YOU'LL FIND ON P. 258
 FURTHER ACCESSORIES YOU'LL FIND
 IN OUR ONLINE-SHOP



Mounting with clamp connector directly at the cabinet pole in any number & height

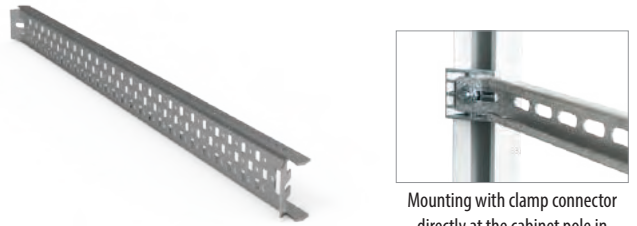
C Profile Rail for Cable Clamping, for PRO

For vertical cable routing in cabinet series PRO
Mounting possible in any number and height between the poles of the cabinet frame

Slot with 16 mm for bracket clamps
Material steel

Scope of delivery: 1 x profile rail incl. mounting material

Art.-No.	Description	For Cabinet Depth
PRO-CPR06	C Profile Rail for Cable Clamping	600 mm
PRO-CPR08	C Profile Rail for Cable Clamping	800 mm
PRO-CPR10	C Profile Rail for Cable Clamping	1000 mm
PRO-CPR12	C Profile Rail for Cable Clamping	1200 mm



Mounting with clamp connector directly at the cabinet pole in any number & height

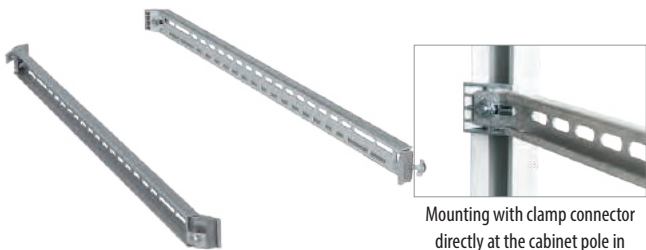
Multi Function Rail Horizontal, for PRO

Multi function rail for mounting between the cabinet poles of series PRO
For universal mounting of accessories, cable routing etc.

Positioning in any height possible
Material steel

Delivery 1 x rail incl. mounting material

Art.-No.	Description	For Cabinet Depth
PRO-MFH06	Multi Function Rail, Horizontal	600 mm
PRO-MFH08	Multi Function Rail, Horizontal	800 mm
PRO-MFH10	Multi Function Rail, Horizontal	1000 mm
PRO-MFH12	Multi Function Rail, Horizontal	1200 mm



Mounting with clamp connector directly at the cabinet pole in any number & height

Depth Rails Set, 2 Pieces

For mounting of profile rails, ducts or cable trays in cabinet series PRO
Also suitable for mounting in cabinet width (at all four cabinet sides)

Material steel / aluzinc diecast

Included in delivery: 2 x depth rails incl. mounting accessories

Art.-No.	Description	For Cabinet Depth
PRO-TST06	Depth Rails Set, 2 Pieces	600 mm
PRO-TST08	Depth Rails Set, 2 Pieces	800 mm
PRO-TST10	Depth Rails Set, 2 Pieces	1000 mm
PRO-TST12	Depth Rails Set, 2 Pieces	1200 mm



Cantilever Set, 4/8 Pieces

For mounting of the 19" or 21" (ETSI) profile rails in cabinets width 800 mm
For each profile 2 outriggers are necessary

Material aluzinc diecast

Delivery incl. mounting accessories

Art.-No.	Description
PRO-AUS01	Cantilever Set for 19", 4 Pieces, for PRO
PRO-AUS02	Cantilever Set for 21"/ETSI, 8 Pieces, for PRO



Profiles with ETSI grid perforation available on request and in the EFB-Webshop

19" Profile Rail for Cabinet Series PRO, Set 2 Pieces

For Retrofitting in network and server cabinets PRO

Double-contrariwise numbering of the rack units

For cabinet width 800 mm outriggers are necessary for mounting

Material steel, galvanised

Art.-No.	Description	U
PRO-PRO47	19" Profile Rail for PRO, Set 2 Pieces	47
PRO-PRO42	19" Profile Rail for PRO, Set 2 Pieces	42
PRO-PRO33	19" Profile Rail for PRO, Set 2 Pieces	33
PRO-PRO24	19" Profile Rail for PRO, Set 2 Pieces	24
PRO-PRO18	19" Profile Rail for PRO, Set 2 Pieces	18



Middle Profiles for PRO, Set of 2 Pieces

Vertical middle profile for support of heavy devices

Mounting between the front and rear 19" level

Material steel, galvanised

Art.-No.	Description	U
PRO-MPR47	Middle Profiles for PRO, Set of 2 Pieces	47 U
PRO-MPR42	Middle Profiles for PRO, Set of 2 Pieces	42 U
PRO-MPR33	Middle Profiles for PRO, Set of 2 Pieces	33 U
PRO-MPR24	Middle Profiles for PRO, Set of 2 Pieces	24 U



19" Rack Frame, Step-Less Adjustable

For vertical cable routing in network and server cabinets PRO
Mounting at the horizontal depth rails left- and right-sided in cabinet
Note: for mounting it can be necessary to adjust the profile depth in the cabinet

Incl. removable front cover with quick fastener
Material steel sheet

Scope of delivery: 1 x vertical cable manager incl. mounting accessories

Art.-No.	Description	For Cabinet Height	Colour
PRO-VKM42.GR	Vertical Cable Management, 1 Piece	42 U	RAL7035
PRO-VKM47.GR	Vertical Cable Management, 1 Piece	47 U	RAL7035
PRO-VKM42.TS	Vertical Cable Management, 1 Piece	42 U	RAL9005
PRO-VKM47.TS	Vertical Cable Management, 1 Piece	47 U	RAL9005



19" Rack Frame, Step-Less Adjustable

Open rack frame for mounting of 19" components
Accessibility from all sides for exhibition purposes, laboratory setups and IT installations

Stable construction, easy assembly
Mounting depth between 19" levels step-less adjustable from 130 .. 695 mm
Max. load 150 kg

Material aluminum profiles (base), steel (19" poles)
Paint finish steel parts RAL7035, light grey
Optional castor set PRO-ROL01 please order separately on demand

Variant with max. load 250 kg and mounting depth 711 mm available on request

Art.-No.	Description	U
691631GR.24	19" Rack Frame	24
691631GR.42	19" Rack Frame	42



Side Cover for Cabinet Series PRO, Width 800 mm

Side cover for cabinets PRO in width 800 mm
For mounting at the lateral depth rails

Material Steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	U	Colour
PRO-SIB42.GR	Side Cover for PRO, W=800, 2 Pcs.	42	RAL7035
PRO-SIB47.GR	Side Cover for PRO, W=800, 2 Pcs.	47	RAL7035
PRO-SIB42.TS	Side Cover for PRO, W=800, 2 Pcs.	42	RAL9005
PRO-SIB47.TS	Side Cover for PRO, W=800, 2 Pcs.	47	RAL9005

FURTHER ACCESSORIES & COMPONENTS FOR CABINET SERIES PRO YOU'LL FIND IN OUR ONLINE-SHOP



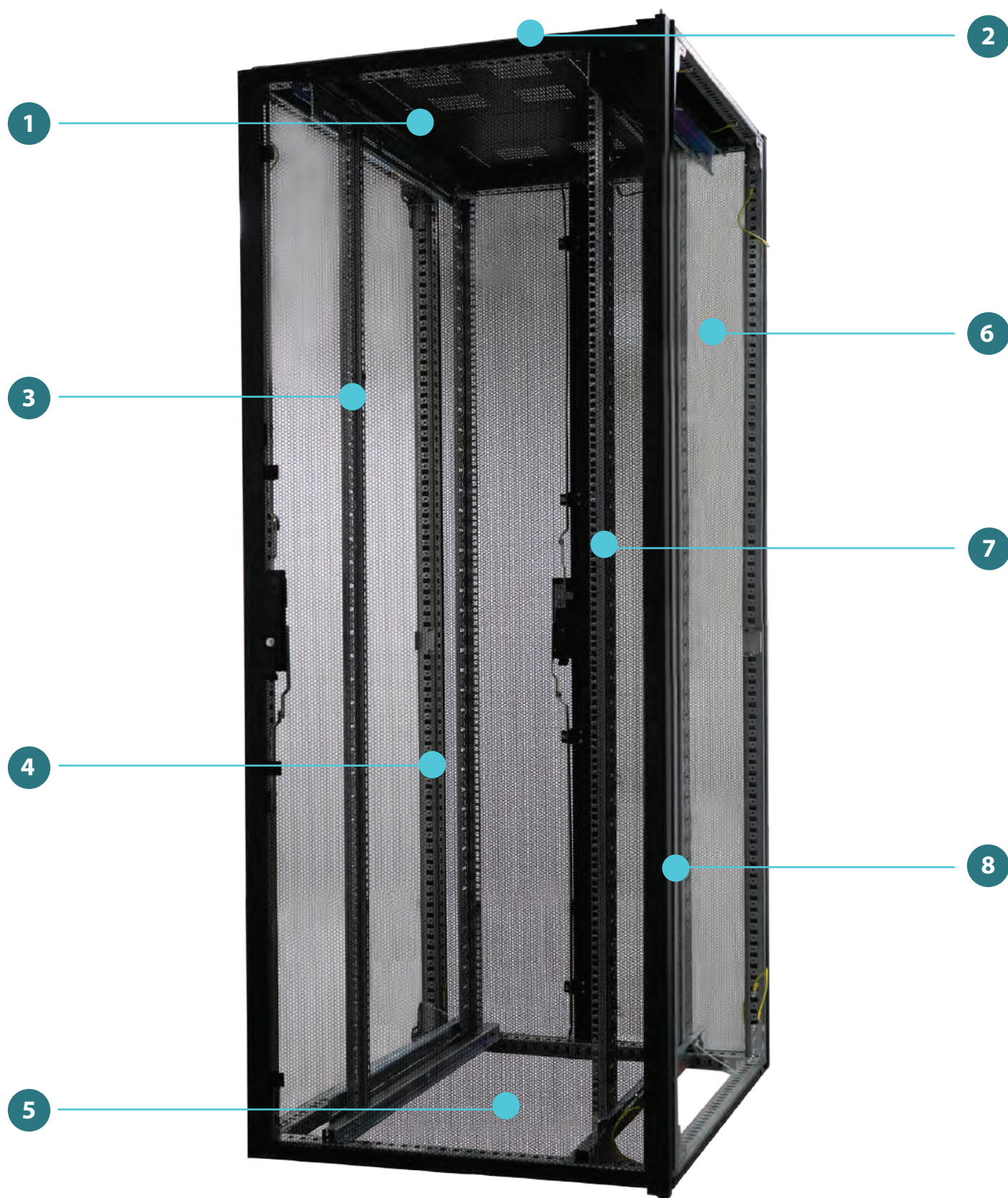
19" 4U Mini Network Frame

The mini network frame is the ideal component for accommodating 19" components in smaller networking solutions
Sturdy sheet steel frame, non-slip
Dimensions: (W x H x D) 490 x 230 x 295 mm

Art.-No.	Description
699996	19" 4U Mini Network Frame, RAL7035

THE EFB-SERVER

PREMIUM SERVER CABINETS FOR DATA CENTRES



ROBUST, UNIVERSAL & WITH TOOL-LESS MOUNTING OPTIONS

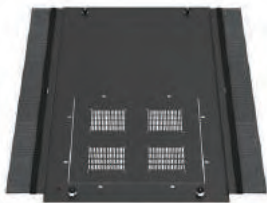
1 TOOL-LESS MOUNTING

of roof and further accessories



2 CABLE ENTRY

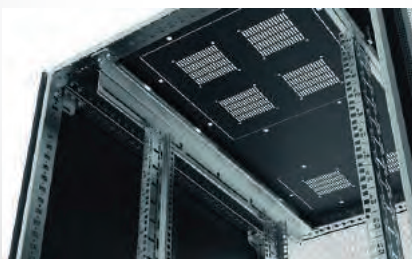
in roof over complete cabinet depth



3 STEP-LESS DEPTH-ADJUSTMENT

of the 19" levels incl. mm scaling

- 19" level changeable to ETSI/21" in standard



4 PROFILE FRAME

with all-side surrounding grid perforation, completely dismantlable



5 HIGH MAX. LOAD OF 1500 KG

(optionally higher max. load possible)

6 5 DIFFERENT SIDE WALL VARIANTS AVAILABLE

- Horizontally divided for easy mounting access and door opening 270°
- Lateral socket strips possible also for 600 mm cabinet depth
- Partitions / Separations for use with or without leveling feet, between or in the cabinet frame
- Partitions / Separations can be retrofit everytime



7 COMPONENTS FOR AIR ROUTING

- Vertical & horizontal air routing possible



8 DOORS WITH HIGH SECURITY

- 1-Part doors with 5-point locking
- 2-Part doors with 3-point locking
- 80 % degree of perforation / 86 % perforated area





FOR MORE DETAILS
DOWNLOAD EFB-SERVER
BROCHURE!



19" Server Cabinets, EFB-Server'

19" server cabinet according to DIN41494

Steel sheet housing with screwed profile frame, completely pre-assembled, dismantlable

Inside front and rear 4 x 19" profile rails (2 front, 2 rear), galvanised, depth-adjustable step-less and tool-less

Scaling for depth-adjustment at the profile carrying rails

Contrariwise numbering of rack units at the 19" profiles

Front- and rear door steel, perforated, 1-part or 2-part, perforation degree > 80 %, perforation area up to 86 %

1-part door with 5-point locking and turning handle, lockable, incl. profile half-cylinder acc. to DIN18252 / EN1303, door stop right or left-sided possible

2-part door with 3-point bar locking and turning handle, lockable, incl. profile half-cylinder acc. to DIN18252 / EN1303

Profile half-cylinder exchangeable by customer (30/10 mm)

Door opening angle up to 270°

Delivery without side walls, side walls available in various variants A / B / C / D / E:

Detailed information about wall variants you'll find in article description „side walls“

Cabinets stackable side-by-side with stacking set Art.-No. ESV-ANR01

Partitions / separations are retrofitable onto already lined-up cabinets

Roof mountable tool-less, with pre-punched ventilation openings for use of up to 2 fan units (2-fan or 4-fan type)

Roof with cable entries over full cabinet length after removal of the pre-punched lateral covers

Delivery without bottom (bottom sets optional)

Max. load 1500 kg, optional possible higher

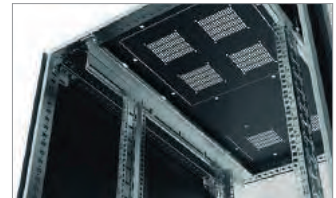
All cabinet parts inside completely grounded

Paint finish RAL7035, light grey / RAL9005, jet black

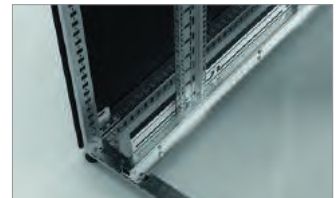
Protection degree IP20 (except bottom area)

Scope of supply: 1 x set of captive nuts (PU 20 pcs), 4 x leveling feet M12, 2 x key

Delivery in transport packaging on disposable pallet



The 19" profiles and many further components are tool-less adjustable



The extremely solid profile frame with surrounding grid perforation also allows conversion to metric installation dimension (ETSI / 21")

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Colour
ESV-4260TS.P10S	42	600 mm	1000 mm	2000 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4260TS.P1P20S	42	600 mm	1000 mm	2000 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4262TS.P10S	47	600 mm	1200 mm	2000 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4262TS.P1P20S	42	600 mm	1200 mm	2000 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4280TS.P10S	42	800 mm	1000 mm	2000 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4280TS.P1P20S	42	800 mm	1000 mm	2000 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4282TS.P10S	42	800 mm	1200 mm	2000 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4282TS.P1P20S	42	800 mm	1200 mm	2000 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4760TS.P10S	47	600 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4760TS.P1P20S	47	600 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4762TS.P10S	42	600 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4762TS.P1P20S	47	600 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4780TS.P10S	47	800 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4780TS.P1P20S	47	800 mm	1000 mm	2200 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005
ESV-4782TS.P10S	47	800 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 1-part	RAL9005
ESV-4782TS.P1P20S	47	800 mm	1200 mm	2200 mm	Steel perforated 1-part	Steel perforated 2-part	RAL9005

Prefix	U	Cabinet Width	Cabinet Depth	Colour	Door Assembly	Options
ESV-	42	8	0	GR	.P1P2	0S = Without Side Walls
	47	6 = 600 mm	0 = 1000 mm	TS = RAL9005, Jet Black	.P1 = Steel Door, Perforated, 1-Part	
	42	8 = 800 mm	2 = 1200 mm	GR = RAL7035, Light Grey	.P2 = Steel Door, Perforated, 2-Part	

The first and second digit after the point define the front door, third and fourth define the rear door. For only one type, front and rear door are identically.



Side and Partition / Separation Walls for EFB-Server, Type A-B-C-D-E

Side walls resp. partitions / separations for server cabinets EFB-Server are available in 5 variants:

Side wall type A:

- horizontally divided
- enables door opening angle of 270°
- Cabinet width increases by 3 mm per side
- not suitable for use with line-up connectors

Side wall type B:

- horizontally divided
- enables the mounting of PDUs lateral of the 19" profiles for cabinet width 600 mm
- cabinet width increases by 3 mm per side
- not suitable for use with line-up connectors

Partition/separation type C/D:

- 1-part partition for mounting between lined-up cabinets
- suitable for use with line-up connectors ESV-ANR01
- with 4 pre-punched cable openings 150 x 45 mm and 4 cutouts for line-up connectors
- front and bottom bends for easy installation
- necessary cabinet distance only 2 mm

Partition/separation type C:

for use at cabinets with leveling feet

Partition/separation type D:

for use at cabinets without leveling feet

Partition/separation type E:

- for mounting inside of the cabinet frame
- suitable for use with line-up connectors ESV-ANR02

Material steel sheet

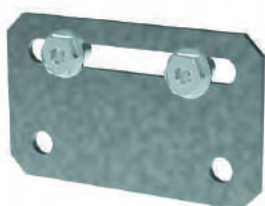
Paint finish RAL7035, light grey / RAL9005, jet black

Scope of delivery: 1 x side wall/partition/separation incl. mounting accessories



All variants also available in grey

Art.-No.	Description	U	For Cabinet Depth	Type	Colour
ESV-W420A.GR	Side Wall for EFB-Server	42	1000	Door opening 270°	RAL7035
ESV-W420B.GR	Side Wall for EFB-Server	42	1000	PDU in W=600 mm	RAL7035
ESV-W420C.GR	Partition / Separation for EFB-Server	42	1000	Partition / Separation with feet	RAL7035
ESV-W420D.GR	Partition / Separation for EFB-Server	42	1000	Partition / Separation w/o feet	RAL7035
ESV-W422A.GR	Side Wall for EFB-Server	42	1200	Door opening 270°	RAL7035
ESV-W422B.GR	Side Wall for EFB-Server	42	1200	PDU in W=600 mm	RAL7035
ESV-W422C.GR	Partition / Separation for EFB-Server	42	1200	Partition / Separation with feet	RAL7035
ESV-W422D.GR	Partition / Separation for EFB-Server	42	1200	Partition / Separation w/o feet	RAL7035
ESV-W420A.TS	Side Wall for EFB-Server	42	1000	Door opening 270°	RAL9005
ESV-W420B.TS	Side Wall for EFB-Server	42	1000	PDU in W=600 mm	RAL9005
ESV-W420C.TS	Partition / Separation for EFB-Server	42	1000	Partition / Separation with feet	RAL9005
ESV-W420D.TS	Partition / Separation for EFB-Server	42	1000	Partition / Separation w/o feet	RAL9005
ESV-W422A.TS	Side Wall for EFB-Server	42	1200	Door opening 270°	RAL9005
ESV-W422B.TS	Side Wall for EFB-Server	42	1200	PDU in W=600 mm	RAL9005
ESV-W422C.TS	Partition / Separation for EFB-Server	42	1200	Partition / Separation with feet	RAL9005
ESV-W422D.TS	Partition / Separation for EFB-Server	42	1200	Partition / Separation w/o feet	RAL9005



ESV-ANR01

Line-Up Connectors for EFB-Server, Set 4 Pieces

Connector set for stacking of two cabinets EFB-Server when using partitions / separations type C/D/E

Note: side walls type A/B are not suitable for use with line-up connectors

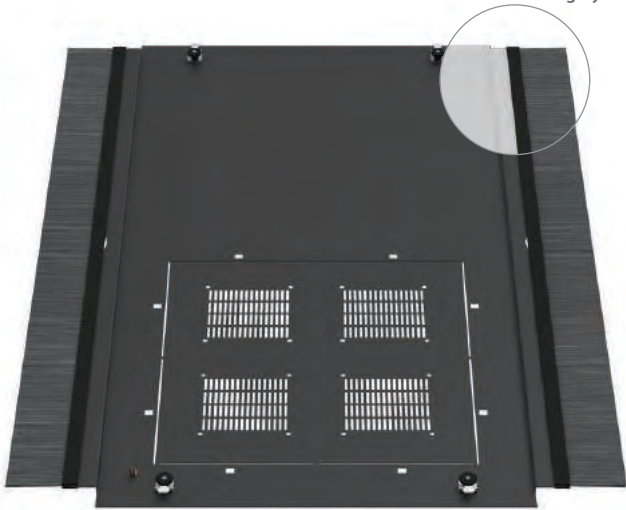
Screw mounting directly at the profile frame

Material steel

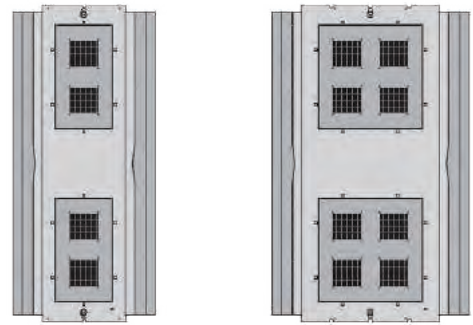
Scope of delivery: 4 x connector incl. mounting material

Art.-No.	Description	For Use With
ESV-ANR01	Line-Up Connectors for EFB-Server, Set 4 Pieces	Partitions/Separations Type C+D
ESV-ANR02	Line-Up Connectors for EFB-Server, Set 4 Pieces	Partitions/Separations Type E

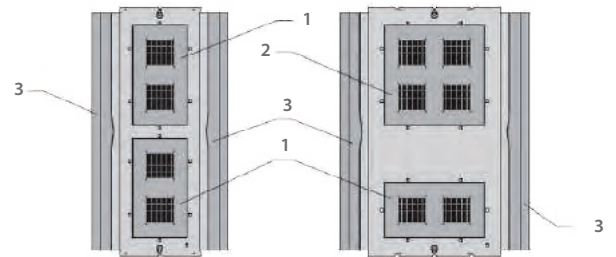
Also available
in grey



Roof plate EFB-Server,
(cabinet depth 1200 mm)



Roof plate EFB-Server,
(cabinet depth 1000 mm)



Legend:

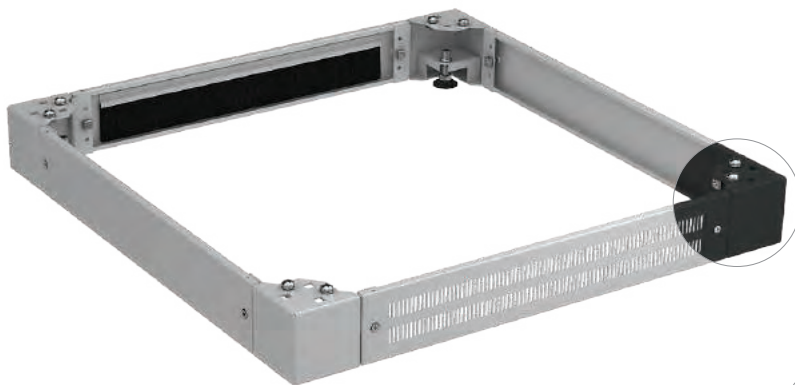
- 1 - Mounting opening type B, 380 x 210 mm
- 2 - Mounting opening type A, 380 x 380 mm
- 3 - lateral brush for cable entry
(after removal of pre-punched cover)



Brush Strip for Roof EFB-Server, 1 Piece

Brush strip for use at the side edge of the roof
Mounting after removal of the pre-punched cover
Material plastic, black
Scope of delivery: 1 x brush strip

Art.-No.	Description	Length
ESV-BRS10	Brush Strip for Roof EFB-Server, 1 Piece	1000 mm
ESV-BRS12	Brush Strip for Roof EFB-Server, 1 Piece	1200 mm



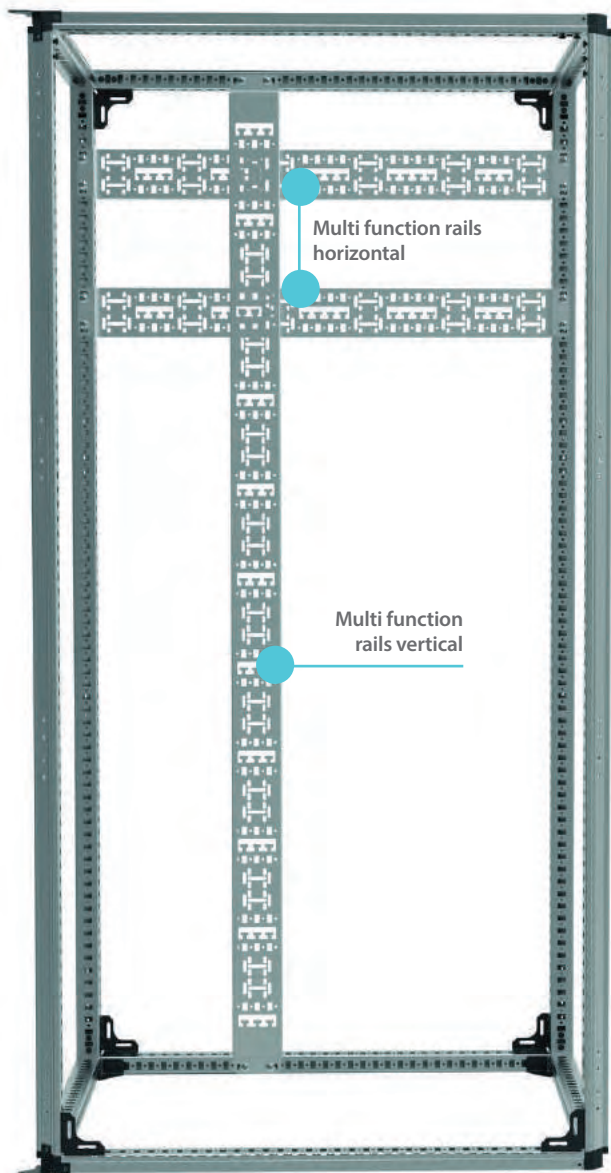
FOR CABINETS EFB-SERVER, THE SAME
PLINTHS AND FANS ARE USED AS FOR
THE CABINET SERIES PRO.
PLINTHS YOU'LL FIND FROM P. 191,
SUITABLE FANS AT P. 231

Variant with 4 fans



Power connector
IEC C14





Horizontal and vertical multi function rails are mountable together

Multi Function Rails Horizontal for EFB-Server

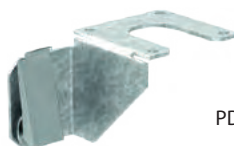
Multi function rail for mounting between the cabinet poles
 For universal mounting of accessories, cable routing etc.
 Positioning in any height possible
 Material steel
 Delivery 1 x rail incl. mounting material

Art.-No.	Description	For Cabinet Depth
ESV-MFH10	Multi Function Rail Horizontal for EFB-Server	1000 mm
ESV-MFH12	Multi Function Rail Horizontal for EFB-Server	1200 mm

Multi Function Rails Vertical for EFB-Server

Multi function rail for mounting between the cabinet poles
 For universal mounting of accessories, cable routing etc.
 Mounting at any position possible
 Material steel
 Delivery 1 x rail incl. mounting material

Art.-No.	Description	For Cabinet Height
ESV-MFV42	Multi Function Rail Vertical for EFB-Server	42 U
ESV-MFV47	Multi Function Rail Vertical for EFB-Server	47 U



PDU holder top



PDU holder bottom



SUITABLE SOCKET STRIPS
 ON PAGE 251
 FURTHER ACCESSORIES YOU'LL
 FIND IN THE ONLINE-SHOP



PDU Holder for EFB-Server, Set 2 Pieces

For vertical mounting of socket strips (PDU) lateral at the cabinet frame
Note: with side walls type B a lateral mounting of PDUs is possible even for cabinet width 600 mm
 Material steel sheet, galvanised
 Scope of delivery. 2 x PDU holder incl. mounting material (toolless)

Art.-No.	Description
ESV-PDU01	PDU Holder for EFB-Server, 2 Pieces

SIDE WALLS TYPE B
 enable mounting of PDU /
 socket strips between
 19" profile and side wall also
 for cabinet width 600 mm



Vertical Cable Combs for EFB-Server

For vertical cable routing in the cabinet
 Suitable for cabinet widths 600 mm and 800 mm
 Toolless mounting at the 19" profiles
 Material plastic, black resp. steel sheet, RAL7035, light grey / RAL 9005, jet black
 Scope of delivery: 1 x vertical cable comb incl. mounting material

Art.-No.	Description	U	Colour
ESV-VKK42.GR	Vertical Cable Comb for EFB-Server	42	RAL7035
ESV-VKK47.GR	Vertical Cable Comb for EFB-Server	47	RAL7035
ESV-VKK42.TS	Vertical Cable Comb for EFB-Server	42	RAL9005
ESV-VKK47.TS	Vertical Cable Comb for EFB-Server	47	RAL9005



Vertical Cable Management with Cover for EFB-Server

Vertical cable duct with two independent covers (top/below)
 Suitable for cabinet width 800 mm
 Toolless mounting at the 19" profiles
 Material plastic, black resp. steel sheet RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x vertical cable duct with covers incl. mounting accessories

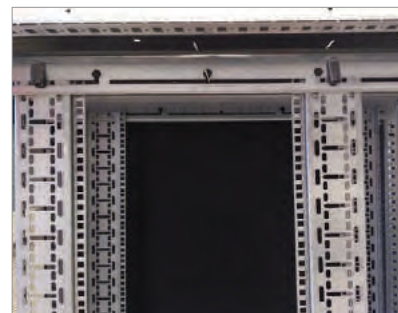
Art.-No.	Description	U	Colour
ESV-VKM42.GR	Vertical Cable Management for EFB-Server	42	RAL7035
ESV-VKM47.GR	Vertical Cable Management for EFB-Server	47	RAL7035
ESV-VKM42.TS	Vertical Cable Management for EFB-Server	42	RAL9005
ESV-VKM47.TS	Vertical Cable Management for EFB-Server	47	RAL9005



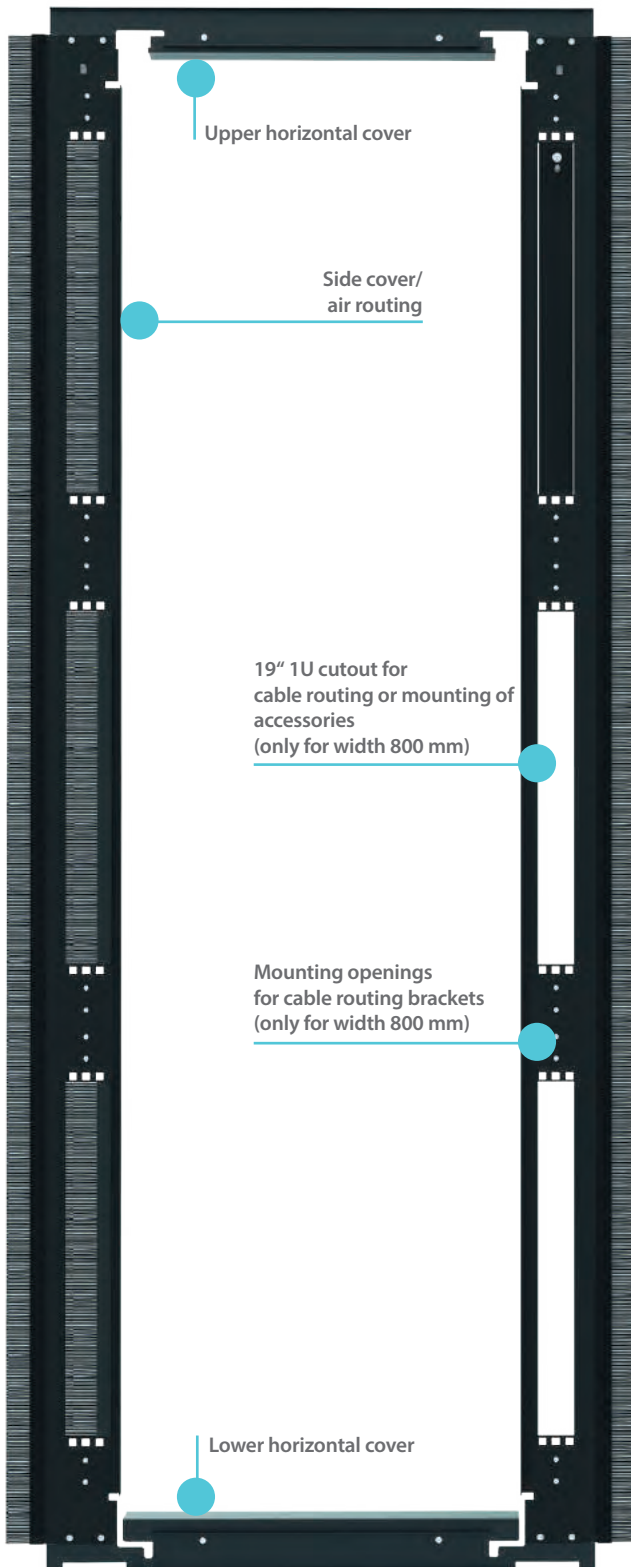
Middle Profile for EFB-Server

Vertical middle profile for support of heavy devices
 Tool-less mounting at the upper and lower profile carrying rail
 Material steel, galvanised
 Scope of delivery: 1 x middle profile, mounting accessories

Art.-No.	Description	U
ESV-MPR42	Middle Profile for EFB-Server	42
ESV-MPR47	Middle Profile for EFB-Server	47



Both the 19" profiles and additional middle profiles can be assembled are adjustable tool-less



Side Cover/Air Routing for EFB-Server

For covering the area beside the 19" level in cabinets EFB-Server

- Serves to control the air flow and prevents the mixing of warm and cold air
- Sealing to side walls with brush strip
- With cutouts 3 x 19" 1U per side for cable routing or accessory mounting
- Mounting openings for cable routing brackets
- Toolless mounting left- and right-sided of the 19" profiles
- Material steel sheet
- Paint finish RAL7035, light grey / RAL9005, jet black
- Scope of delivery: 2 x panel incl. mounting accessories, brush strips

Art.-No.	Description	U	Width	Colour
ESV-SA3426.GR	Side Cover/Air Routing for EFB-Server	42	600 mm	RAL7035
ESV-SA3476.GR	Side Cover/Air Routing for EFB-Server	47	600 mm	RAL7035
ESV-SA3428.GR	Side Cover/Air Routing for EFB-Server	42	800 mm	RAL7035
ESV-SA3478.GR	Side Cover/Air Routing for EFB-Server	47	800 mm	RAL7035
ESV-SA3426.TS	Side Cover/Air Routing for EFB-Server	42	600 mm	RAL9005
ESV-SA3476.TS	Side Cover/Air Routing for EFB-Server	47	600 mm	RAL9005
ESV-SA3428.TS	Side Cover/Air Routing for EFB-Server	42	800 mm	RAL9005
ESV-SA3478.TS	Side Cover/Air Routing for EFB-Server	47	800 mm	RAL9005



Horizontal Cover/Air Routing for EFB-Server

Note: for fixing, Side covers ESV-SAExxx are necessary

- For covering the area above and below of the 19" level in cabinets EFB-Server
- Serves as blinding and control of the air flow
- Toolless mounting at the side covers
- Material steel sheet
- Paint finish RAL7035, light grey / RAL9005, jet black
- Scope of delivery: 2 x panel incl. mounting accessories

Art.-No.	Description	U	Width	Colour
ESV-HAB426.GR	Horizontal Cover/Air Routing for EFB-Server	42	600 mm	RAL7035
ESV-HAB476.GR	Horizontal Cover/Air Routing for EFB-Server	47	600 mm	RAL7035
ESV-HAB428.GR	Horizontal Cover/Air Routing for EFB-Server	42	800 mm	RAL7035
ESV-HAB478.GR	Horizontal Cover/Air Routing for EFB-Server	47	800 mm	RAL7035
ESV-HAB426.TS	Horizontal Cover/Air Routing for EFB-Server	42	600 mm	RAL9005
ESV-HAB476.TS	Horizontal Cover/Air Routing for EFB-Server	47	600 mm	RAL9005
ESV-HAB428.TS	Horizontal Cover/Air Routing for EFB-Server	42	800 mm	RAL9005
ESV-HAB478.TS	Horizontal Cover/Air Routing for EFB-Server	47	800 mm	RAL9005





Sliding door for Cold/Warm Aisle Containment basing on cabinet series ,EFB-Server'
 Sliding door with operating handles without lock (locking optional on demand)
 Manual operation, self-closing or automatic operation available (optional)
 Variants for use with/without levelling feet or plinth available
 Materials steel, aluminium, certified safety glass
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery as complete set incl. 2 x door element, upper cover, 2 side walls and mounting material

FURTHER U VARIANTS, OTHER AISLE WIDTHS OR ONE-SIDE MOUNTED ROOF YOU WILL FIND IN THE ONLINE-SHOP & ON REQUEST

We advise & deliver individual solutions for your project - please contact us.

Sliding Doors for EFB-Server 42U, Cabinet Depth 1200 mm, Aisle 1200 mm

Art.-No.	Description	U	Cabinet Depth	Installation	Operation	Aisle width	Colour
ESV-STR4220M.GR	Sliding Door for EFB-Server	42	1200	Without feet	Manual	1200 mm	RAL7035
ESV-STR422FM.GR	Sliding Door for EFB-Server	42	1200	With feet	Manual	1200 mm	RAL7035
ESV-STR4220S.GR	Sliding Door for EFB-Server	42	1200	Without feet	Self-closing	1200 mm	RAL7035
ESV-STR4220M.TS	Sliding Door for EFB-Server	42	1200	Without feet	Manual	1200 mm	RAL9005
ESV-STR422FM.TS	Sliding Door for EFB-Server	42	1200	With feet	Manual	1200 mm	RAL9005
ESV-STR4220S.TS	Sliding Door for EFB-Server	42	1200	Without feet	Self-closing	1200 mm	RAL9005

Sliding Doors for EFB-Server 42U, Cabinet Depth 1000 mm, Aisle 1200 mm

Art.-No.	Description	U	Cabinet Depth	Installation	Operation	Aisle width	Colour
ESV-STR4200M.GR	Sliding Door for EFB-Server	42	1000	Without feet	Manual	1200 mm	RAL7035
ESV-STR420FM.GR	Sliding Door for EFB-Server	42	1000	With feet	Manual	1200 mm	RAL7035
ESV-STR4200S.GR	Sliding Door for EFB-Server	42	1000	Without feet	Self-closing	1200 mm	RAL7035
ESV-STR4200M.TS	Sliding Door for EFB-Server	42	1000	Without feet	Manual	1200 mm	RAL9005
ESV-STR420FM.TS	Sliding Door for EFB-Server	42	1000	With feet	Manual	1200 mm	RAL9005
ESV-STR4200S.TS	Sliding Door for EFB-Server	42	1000	Without feet	Self-closing	1200 mm	RAL9005

Aisle Roof for Cold/Warm Aisle EFB-Server

Roof elements for cold / warm aisle containment basing on ,EFB-Server'
 Toolless mounting
 Raised construction +150 mm
 Material steel sheet, polycarbonat
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x aisle roof incl. mounting material

We advise & deliver individual solutions for your project - please contact us.

Art.-No.	Description	Aisle width	Colour
ESV-GDE62F.GR	Aisle Roof for EFB-Server	1200 mm	RAL7035
ESV-GDE82F.GR	Aisle Roof for EFB-Server	1200 mm	RAL7035
ESV-GDE62F.TS	Aisle Roof for EFB-Server	1200 mm	RAL9005
ESV-GDE82F.TS	Aisle Roof for EFB-Server	1200 mm	RAL9005



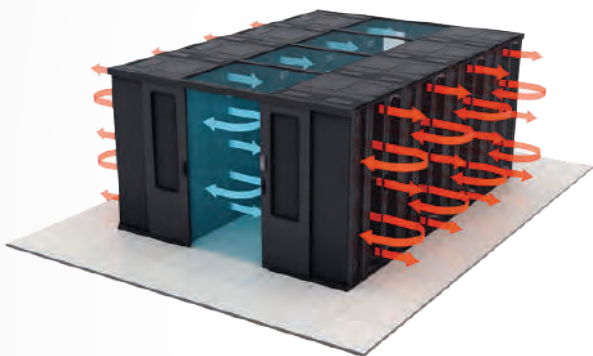


IN ROW AND SIDE COOLERS OPTIMAL CLIMATISATION ENSURES HIGH AVAILABILITY

In environments such as data centres, where a lot of heat is emitted by the numerous devices, reliable cooling is crucial - only in this way can the high availability of the active technology be ensured around the clock.

By using the high-quality in-row or side heat exchangers suitable for the PRO and EFB-Server cabinet series, there is a permanent, constantly controlled exchange of air, so that hot spots can be prevented. No additional cold air has to be blown into the room: Temperature and humidity are controlled by the precision air-conditioning units directly in the cold aisle or in individual rooms directly in the cold aisle or in individual individual cabinets.

The consistent separation of cold and warm air opens up high potential for energy savings:



HIGH-QUALITY COOLING SOLUTIONS

- DX („Direct Expansion“ / Split) and cold water versions available
- Simple installation without intervention inside the cabinet
- Ensuring short cold air paths to the active units
- Direct hot air discharge from the active units
- No single point of failure due to simple n+1 redundancy
- Filters can be changed easily at any time
- Humidity and temperature measurement
- Numerous options: EC fan, communication via Ethernet

Containment of eight server cabinets in variant „Cold Aisle“: the In Row Coolers transport the cooled air into the corridor. From there, it will stream thru the racks. After cooling the devices, the warm air comes out of the rear side of the cabinets.

WE ADVISE YOU & DELIVER INDIVIDUAL SOLUTIONS FOR YOUR PROJECT. PLEASE CONTACT US!

CLOSED CIRCUIT

Cooling directly in the cabinet by means of Side heat exchanger



OPEN CIRCUIT

Cooling via cold aisle by means of in-row heat exchanger

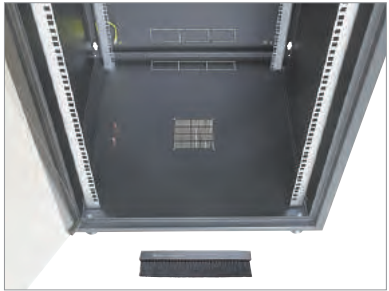




ADDITIONAL VARIANT:
19" NETWORK CABINET OFFICE -
ACOUSTICALLY INSULATED YOU
WILL FIND ON PAGE 215



Picture shows cabinet OFF-1566GR.V1RW with optional worktop (black) on distance sleeves, castor set and further 19" accessories inside



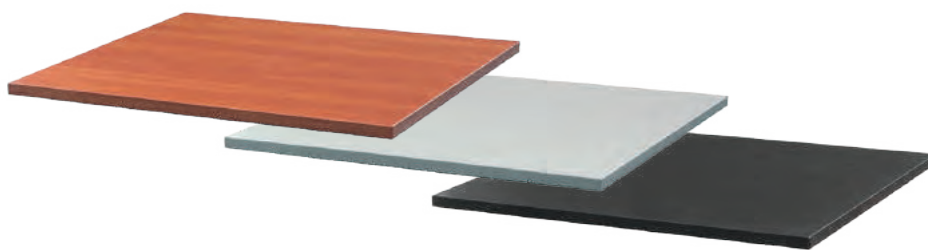
Roof, rear wall and bottom plate are equipped with pre-punched cable entries. After opening, they can be closed with a brush strip (included in delivery).



19" Network Cabinet OFFICE, RAL7035/RAL9005

19" network cabinet according to DIN41494
Steel sheet housing, self-supporting, completely pre-assembled, self-ventilated
Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, step-less depth-adjustable
Front door full glass, 1-part (thickness 4 mm)
Front door with 1-point latch-locking
Door stop possible left or right-sided
Bottom and rear with pre-punched openings for cable entry (ca. 245 x 25 mm)
Roof and bottom prepared for accommodation of 1 x fan unit (Art.-No. 691664)
Internal earthing of all cabinet sections
Paint finish RAL7035, light grey / RAL9005, jet black
Max. load 12U 30 kg, 15U 38 kg, 18U 45 kg
Protection degree IP20
Included in delivery: 1 x brush, 4 x leveling feet M8, 2 x key
Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Max. Load	Colour
OFF-1266GR.V1RW	12	600 mm	600 mm	604 mm	Full glass door 1-part	Rear wall	30 kg	RAL7035
OFF-1566GR.V1RW	15	600 mm	600 mm	737 mm	Full glass door 1-part	Rear wall	38 kg	RAL7035
OFF-1568GR.V1RW	15	600 mm	800 mm	737 mm	Full glass door 1-part	Rear wall	38 kg	RAL7035
OFF-1866GR.V1RW	18	600 mm	600 mm	871 mm	Full glass door 1-part	Rear wall	45 kg	RAL7035
OFF-1868GR.V1RW	18	600 mm	800 mm	871 mm	Full glass door 1-part	Rear wall	45 kg	RAL7035
OFF-1266TS.V1RW	12	600 mm	600 mm	604 mm	Full glass door 1-part	Rear wall	30 kg	RAL9005
OFF-1566TS.V1RW	15	600 mm	600 mm	737 mm	Full glass door 1-part	Rear wall	38 kg	RAL9005
OFF-1568TS.V1RW	15	600 mm	800 mm	737 mm	Full glass door 1-part	Rear wall	38 kg	RAL9005
OFF-1866TS.V1RW	18	600 mm	600 mm	871 mm	Full glass door 1-part	Rear wall	45 kg	RAL9005
OFF-1868TS.V1RW	18	600 mm	800 mm	871 mm	Full glass door 1-part	Rear wall	45 kg	RAL9005



Worktop for OFFICE

Attractive worktop for mounting on the cabinet roof
 Material MDF, laminated, thickness 18 mm
 Optional distance set (Art.-No. OFF-ARB01) enables raising of 19 mm for optimized ventilation
 Paint finish calvados (wood) / grey / black
 Delivery incl. mounting accessories

Art.-No.	Description	Width	Depth	Colour
OFF-ARB66.CV	Worktop for OFFICE	600 mm	600 mm	Natural colour
OFF-ARB68.CV	Worktop for OFFICE	600 mm	800 mm	Natural colour
OFF-ARB66.GR	Worktop for OFFICE	600 mm	600 mm	Grey
OFF-ARB68.GR	Worktop for OFFICE	600 mm	800 mm	Grey
OFF-ARB66.TS	Worktop for OFFICE	600 mm	600 mm	Black
OFF-ARB68.TS	Worktop for OFFICE	600 mm	800 mm	Black



Set for Raising the Worktop

For raising the worktop to 19 mm above the roof
 Necessary for mounting of fans if worktop is used
 Optimisation of cabinet ventilation
 Included in delivery: 4 x distance sleeve, 4 x screw M5 x 34, 4 x washer

Art.-No.	Description
OFF-ARB01	Set for Raising the Worktop



Castor Set for OFFICE

Plastic castors with steel thread bolt M8
 Height 68 mm (without thread bolt)
 Included in delivery: 2 x castor with brake, 2 x castor without brake

Art.-No.	Description
OFF-ROL01	Castor Set for Cabinet Series OFFICE



Leveling Feet 4 Pcs. M8

Leveling feet for cabinet series OFFICE and wall housings 1-part/2-part
 Thread M8, height 56 mm
 With locknut

Art.-No.	Description
OFF-NIV01	Leveling Feet for Cabinet Series OFFICE and Wall Housings, 4 Pcs. M8



19" 5U Tablet Holder, RAL7035

Module for vertical carrying of 16, 20 or 27 devices like tablets, laptops etc.
 Available capacities: 16 trays of 22 mm each, 20 trays of 16.3 mm each or 27 trays of 10.5 mm each
 Stainless steel brackets adjustable for different tray widths
 Soft standing area and edge protection for avoiding of scratches
 Rear-sided cable entries incl. edge protection for charging cables
 Material steel, brackets stainless steel
 Paint finish RAL7035, light grey



Art.-No.	Description	Trays	Colour
691777GR.1	19" 5U Tablet Holder	16 x 22 mm	RAL7035
691777GR.2	19" 5U Tablet Holder	20 x 16 mm	RAL7035
691777GR.3	19" 5U Tablet Holder	27 x 10 mm	RAL7035

OUR CONFIGURATOR FOR NETWORK AND SERVER CABINETS



With high-quality product lines, our new **cabinet configurator** provides adequate options for your individual customised configuration. Simply select and combine model, frame and accessories.

While selecting your parameters, your **individually designed** cabinet is always visualised to allow you to directly view and track all modifications and add suitable accessories as needed

<https://configurator.efb-elektronik.de/cabinet>

PREMIUM SERVER CABINETS FOR DATA CENTERS



The premium line **EFB-Server** includes a high-quality system for server cabinets and the matching accessories. Due to the excellent workmanship, the products are optimally suited for demanding requirements of complex data centers. Find out more in the free brochure.



DOWNLOAD THE FREE BROCHURE:
www.efb-elektronik.de/en/efb-server



LOOK UP STANDARD TERMS IN THE GLOSSARY.

Brief and straightforward explanations can be found starting on page 334.



ALMOST SILENT &
WITHOUT WASTE HEAT FOR THE
INSTALLATION ROOM
Ideal for all quiet places: office,
conference/seminar rooms,
library, hospital etc.



Complete Set 19" Cabinet PRO 42U 800x1000 + Side Cooler 3.5 kW

Nearly noiseless and without heat for the installation room
Ideal for all quite locations: office, conference / seminar room, libraries, hospital, ...

19" network/server cabinet 42U, depth 1000 mm, coplet set with side cooler
Nearly noiseless due to integrated noise absorption mats – practically not noticeable in the installation location!

- Integrated air routing system guides the cold air into the frontside of the cabinet
- Evacuating of the waste heat in top of the cabinet
- No waste heat for the installation room
- Side module contains the cooling unit of the split-climatic system
- Outdoor unit („Chiller“) is installed in next room or at a outside wall
- Cooling system in Inverter Technology, means that only the actually necessary energy is used

Common Specifications:

- Side cooler inside fully lined with special acoustic foam for especially quite operation
- Insulated side and rear wall, detachable
- Rear-sided outlet for cables an cooling pipes
- Control via touch panel in the front or IR remote control (included)
- Paint finish RAL7035, light grey (RAL9005 or special design on request)

Technical specifications indoor unit (integrated in side module):

- Modern inverter technology
- Cooling power 3500 W
- Energy efficiency class „A“
- Operation voltage 230 V / 50 Hz
- Air flow 720 m³/h
- SPL max. 39 dB(A)



For connection and filling with refridgerant a certified climatic technician is necessary

Technical specifications outdoor unit:

- Modern inverter technology
- Cooling power 3500 W
- Refridgerant R410a

Art.-No.	Description	Width	Depth	Height
PRO-4210GR.SK13,5	Cabinet 42U + Bay Cooler 3.5 kW, WxD 1100x1000, RAL7035, *Complete Set*	1100 mm	1000 mm	1963 mm



PICTURE SHOWS VARIANT 24U 800x800 mm



The cabinet is delivered prepared with all openings and cutouts



The optional air funnel allows the direct removal of heat from the room by means of a PVC hose



Cabinet IP55 with Side Cooler

IP55 cabinet with side-mounted cooling solution
 3 power levels 1.0, 1.5 and 1.9 kW cooling capacity
 Cooling device for industrial purposes at high environmental temperatures up to +55°C
 Industrial-qualified steel sheet housings
 Compact, rugged design and simple function
 Electromechanical thermostat and fault indicating contact
 Integrated condensate evaporator
 Temperature selection directly at the device
 Optional exhaust air funnel allows the direct discharge of waste heat through an exhaust hose (∅ 150 mm) from the installation room
 Noise level 67 dB(A)
 Power supply 230 V / 50 Hz
 Supplied completely ready-for-installation including prepared cabinet with all openings, sealings, cables etc.

Art.-No.	Description	Width	Depth	Height	With Air Funnel Ø 150 mm
KS55-4288GR.1,0	19" Cabinet 42U IP55 with Side Cooler 1.0 kW	1037 mm	800 mm	2144 mm	False
KS55-4288GR.1,0A	19" Cabinet 42U IP55 with Side Cooler 1.0 kW, Air Funnel	1037 mm	800 mm	2144 mm	True
KS55-4288GR.1,5	19" Cabinet 42U IP55 with Side Cooler 1.5 kW	1037 mm	800 mm	2144 mm	False
KS55-4288GR.1,5A	19" Cabinet 42U IP55 with Side Cooler 1.5 kW, Air Funnel	1037 mm	800 mm	2144 mm	True
KS55-4288GR.1,9	19" Cabinet 42U IP55 with Side Cooler 1.9 kW	1037 mm	800 mm	2144 mm	False
KS55-4288GR.1,9A	19" Cabinet 42U IP55 with Side Cooler 1.9 kW, Air Funnel	1037 mm	800 mm	2144 mm	True
KS55-4280GR.1,9	19" Cabinet 42U IP55 with Side Cooler 1.9 kW	1037 mm	1000 mm	2144 mm	False
KS55-4280GR.1,9A	19" Cabinet 42U IP55 with Side Cooler 1.9 kW, Air Funnel	1037 mm	1000 mm	2144 mm	True



Exhaust Hose Ø 150 mm, incl. 1 x Clamp

Hose ∅ 150 mm, length 3 m / 6 m
 For use with side cooling solutions with air funnel
 For evacuation of lost heat out of the room
 Material PVC
 Delivery incl. 1 x mounting clamp

Art.-No.	Description
80165.3	Exhaust Hose Ø 150 mm, Length 3.0 m, incl. 1 x Clamp
80165.6	Exhaust Hose Ø 150 mm, Length 6.0 m, incl. 1 x Clamp



IP Thermometer with E-Mail, LAN, WiFi, PoE, SNMP

New generation of the IP Thermometers in modern Design
 Connection of up to **three temperature- or humidity sensors (also combi sensors)**

- Two dry contacts for control of alarms (door opening, smoke sensor, etc.)
- Network connection via **LAN or WiFi**
- E-Mail with TLS transport encryption
- SMS via HWg-SMS gateway directly via network
- Worldwide access via SensDesk portal of the manufacturer incl. web interface (Android, iOS)
- Applications for the IP thermometer:
 - IT monitoring: control of relevant data in server room and alarm to the technicians
 - Health: monitoring of refridgerators incl. reporting
 - Food industry: monitoring of cold chain
 - Heating systems: fast information at failure of critical systems
 - Out of Band: integrated WiFi module enables connection at critical locations
- Included in delivery: IP thermometer, 1 x temperature sensor (3 m), software CD, power supply (adaptable Euro/UK/USA/China)



Art.-No.	Description
DCM1002.2	IP-Thermometer with E-Mail, LAN, WiFi, PoE, SNMP



Temperature Sensor for IP Thermometer

Temperature sensor, cable length 3 m (other lengths on request)
 Temperature range -10°C .. +80°C
 Suitable for DCM1002.x and DCM1001.x

Art.-No.	Description
DCM1000.T	Temperature Sensor for DCM100X.x, -10°C .. +80°C, Cable 3 m



Humidity Sensor for IP Thermometer

Humidity sensor, cable length 3 m (other lengths on request)
 Suitable for DCM1002.x and DCM1001.x

Art.-No.	Description
DCM1000.H	Humidity Sensor for DCM1002.1



Door Contact Switch for IP Thermometer

Door contact switch, cable length 3 m
 Suitable for DCM1002.x and DCM1001.x (not for DCM1000.x)

Art.-No.	Description
DCM1001.D	Door Contact Switch for DCM1002.x



REAR SIDE WITH 3 x SUPER-SILENT FAN AND CABLE ENTRY



19" Roll Container 15U, Acoustically Insulated, Office Design

All EFB housings are available as acoustical insulated type and in individual design - ask your sales contact!

- 19" Network cabinet as roll container for office environments
- High-quality acoustical insulated variant for ergonomic work, suitable for installation directly at the working place
- Attractive, stable MDF plate at the upper side enables parking of further devices (printer etc.) on the cabinet
- Attenuation (typ.) 8 .. 25 dB (frequency-dependent)
- Especially decoupled, smooth running „Silent“ fans at the rear wall guide the heat to outside, converted air volume 294 m³/h
- Fresh air feeding from bottom-front via filter grid
- Cable entry rear-sided below via brush
- Inside 4 x 19" rails, depth-adjustable in 25 mm raster
- Front door with window of certified safety glass (5 mm), with turning handle and profile half-cylinder acc. to DIN18252, PHC exchangeable
- Rear door with 1 x latch, lock equal to door lock
- Side walls detachable with 2 x latch
- Max. load 300 kg (castors) / 600 kg (leveling feet)
- Paint finish und MDF plate RAL7035, light grey
- Delivery incl. set of 4 castors (2 with brake), 2 x key, 1 x power supply for fans

Art.-No.	Bezeichnung	U	Width	Height
692615N-AK-GR	19" Roll Container 15U, Acoustically Insulated, Office Design	15	600 mm	900 mm



19" Wall Housing, Acoustically Insulated

All EFB housings are available as acoustical insulated type - ask your sales contact!

- Acoustically high-quality insulated 19" wall housing for acoustical insulation of loud, active devices
- For installation in immediate near of working places, in seminar or conference rooms without noise pollution
- Complete inner lining with especially noise absorbers
- Attenuation (typ.) 8 .. 25 dB (frequency-dependent, see data sheet)
- Special decoupled super silent fans in roof area
- Converted air volume 196 m³/h
- Closeable fresh air inlets in bottom
- Cable entry in bottom via brush
- Front door with window of certified safety glass (4 mm), lockable
- Side walls detachable, lockable
- Paint finish RAL7035, light grey
- Delivery incl. 2 x key, 1 x power supply for the fans



2 x super-silent fan in roof, additionally decoupled

Art.-No.	Bezeichnung	U	Width	Height	Depth	Max. Load
691706.1-AK	19" Wall Housing, Acoustically Insulated	6	600 mm	330 mm	500 mm	50 kg
691709.1-AK	19" Wall Housing, Acoustically Insulated	9	600 mm	465 mm	500 mm	50 kg
691712.1-AK	19" Wall Housing, Acoustically Insulated	12	600 mm	600 mm	500 mm	50 kg
691715.2-AK	19" Wall Housing, Acoustically Insulated	15	600 mm	730 mm	600 mm	50 kg



19" Network Cabinet OFFICE - Acoustically Insulated

19" network cabinet according to DIN41494
Steel sheet housing, self-supporting, completely pre-assembled, active ventilated

Interior lined with sound-absorbing foam, attenuation ca. 8 dB

Front door with additional, high quality rubber sealing

Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, step-less depth-adjustable

Front door full glass, 1-part (thickness 4 mm)

Front door with 1-point latch-locking

Door stop possible left or right-sided

Bottom and rear with pre-punched openings for cable entry

Roof equipped with high quality single fan with cable open end (ca. 0,3 m, without thermostat/temperature controller + cables, please order separately)

Internal earthing of all cabinet sections

Paint finish RAL7035, light grey / RAL9005, jet black

Max. load 45 kg

Protection degree IP20

Included in delivery: 1 x brush, 4 x leveling feet M8, 2 x key

Delivery in transport packaging on disposable pallet



Pre-assembled quality fan in roof
(Thermostat etc. please order separately on demand)

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door	Colour
OFF-1866GR.V1RW-AK	18	600 mm	600 mm	871 mm	Full glass door 1-part	Rear wall	RAL7035
OFF-1866TS.V1RW-AK	18	600 mm	600 mm	871 mm	Full glass door 1-part	Rear wall	RAL9005
OFF-1868TS.V1RW-AK	18	600 mm	800 mm	871 mm	Full glass door 1-part	Rear wall	RAL9005



Server Cabinet 26U/600/1000 mm, Acoustically Insulated, Wood Design Beech

All EFB housings are available as acoustical insulated type - ask your sales contact!

Acoustically high-quality insulated 19" server cabinet for acoustical insulation of loud, active devices

Especially attractive design with side elements and roof in wood type (Beech)

For installation in immediate near of working places, in seminar- or conference rooms without noise pollution

Complete inner lining with especially noise absorbers

Attenuation (typ.) 8 .. 25 dB (frequency-dependent)

3 x Super-Silent fans in rear roof area

Converted air volume 294 m³/h

Closeable fresh air inlets in bottom

Cable entry in bottom via perforated air entry in bottom

Front door 1-part with perforation design, acoustically insulated, lockable

Rear door 2-part with perforation design, acoustically insulated, lockable

Front and rear door with turning handle and profile half-cylinder acc. to DIN18252 / EN1303, PHC exchangeable by customer

Side walls detachable, screwed

Paint finish (frame) RAL9005, jet black, wood elements beech

Delivery incl. 2 x key, 1 x power supply for the fans, 4 x leveling feet, set of captive nuts (PU 20 pcs.)



Also doors and poles are fully insulated



Rear-sided roof area with 3 x super-silent fan

Art.-No.	U	Width	Depth	Height	Front Door	Rear Door
693126.60-AK-BU	26	600 mm	1000 mm	1270 mm	Other	Other

IP CABINETS & OUTDOOR CABINETS



19" Standing Cabinets IP55 **P. 217**

19" Wall Housings IP55 **P. 218**

Customer-Specific Solutions **P. 219**

// YOU MIGHT ALSO BE INTERESTED IN:

19" 3U Power Distribution Box **P. 234**

Active Devices (Switches etc.) **P. 312**

LED Cabine Lighting **P. 233**



19" Network / Industrial Cabinet, Protection Degree IP55

19" Network cabinet according to DIN 41494
 Steel sheet housing with welded frame, completely pre-assembled
 Pre-assembled plinth 100 mm
 Inside front and rear 4 x 19" profiles (2 front, 2 rear-sided), galvanised, depth-adjustable in 25 mm raster
 Numbering of rack units at the 19" profiles
 Front an rear door steel, 1-part
 Front and rear door with 3-point locking with turning handle, lockable

Door opening angle front and rear > 120°
 Side walls not detachable
 Inner roof pre-punched openings for fan units
 Bottom prepared with air inlet filters and rubber grommets Ø 80 mm for cable entry
 Internal earthing of all cabinet sections
 Max. load 1000 kg
 Paint finish RAL9005, jet black
 Protection degree IP55
 Included accessories: 1 x set of captive nuts (PU 20 pcs.), pre-installed plinth, 2 x key
 Delivery in transport packaging on disposable pallet

Art.-No.	U	Width	Depth	Height	Suitable Fans	Colour
692524IP55.GR	24	600 mm	600 mm	1360 mm	only 2-fan	RAL7035
692724IP55.GR	24	800 mm	800 mm	1360 mm	2/4/6-fan	RAL7035
691742IP55.GR	42	800 mm	800 mm	2160 mm	2/4/6-fan	RAL7035
692442IP55.GR	42	800 mm	1000 mm	2160 mm	2/4/6-fan	RAL7035
692524IP55.TS	24	600 mm	600 mm	1360 mm	only 2-fan	RAL9005
692724IP55.TS	24	800 mm	800 mm	1360 mm	2/4/6-fan	RAL9005
691742IP55.TS	42	800 mm	800 mm	2160 mm	2/4/6-fan	RAL9005
692442IP55.TS	42	800 mm	1000 mm	2160 mm	2/4/6-fan	RAL9005



SUITABLE
 POWER CABLE
 EK504.XV2 ON
 PAGE 261



Roof Fan Units for Standing Cabinets IP55

For installation in roof of all network and server cabinets Classic
 19" Mounting possible with optional mounting set (Art.-No. 691654MS / 691654MSTS)
 Control via connected thermostat (Art.-No. 691642)
 Thermostat and mounting material included
 Rear-sided power connection via IEC C14 socket (power cable not included, e.g. Art.-No. EK504.x)
 Rated voltage 230 V, 50 Hz
 Illuminated switch ON/OFF
 Rear sided earth connection via earth jack
 Material: steel sheet
 Paint finish: RAL7035 light grey / RAL9005 jet black

Art.-No.	Description	Air Flow	Colour
691654V3	Roof Fan Unit, 2 Fans, for IP55 Standing Cabinet	320 m³/h	RAL7035
691655V3	Roof Fan Unit, 4 Fans, for IP55 Standing Cabinet	640 m³/h	RAL7035
691659V3	Roof Fan Unit, 6 Fans, for IP55 Standing Cabinet	920 m³/h	RAL7035
691654TSV3	Roof Fan Unit, 2 Fans, for IP55 Standing Cabinet	320 m³/h	RAL9005
691655TSV3	Roof Fan Unit, 4 Fans, for IP55 Standing Cabinet	640 m³/h	RAL9005
691659TSV3	Roof Fan Unit, 6 Fans, for IP55 Standing Cabinet	920 m³/h	RAL9005

19" Wall Housings IP55

Steel sheet housing with welded corpus, completely pre-assembled
 Right- and left-sided metal covered air inlets for passive ventilation
 Side walls not detachable

Roof hinged, inner roof prepared for mounting of Plug&Play fan unit Art.-No. 691656GR (cable not included, please order separately, e.g. Art.-No. EK504.x)
 Bottom with PG glands 1 x PG48, 2 x PG21 and 3 x Ø 20 mm PVC blind grommets

For depth 450 mm inside 2 x 19" profile rails front-sided, galvanised, with numbering of rack units (U)

For depth 600 mm inside 4 x 19" profile rails (2 front, 2 rear), galvanised, with numbering of rack units (U)

Front door steel sheet with reinforcement and 3-point bar locking, lockable, with profile half-cylinder acc. to DIN 18252 / EN1303

Profile half-cylinder exchangeable by customer

Cabinet parts inside completely earthed

Max. load 100 kg

Paint finish RAL7035, light grey

Protection degree IP55

Plinth for use as standing cabinet available as option

Included accessories: 4 x Wall mount bracket, 2 x key



19" Wall Housing IP55, Steel Door

Art.-No.	Bezeichnung	U	Height	Depth
691707IP55.1	19" Wall Housing IP55, Steel Door	7	410 mm	450 mm
691709IP55.1	19" Wall Housing IP55, Steel Door	9	500 mm	450 mm
691712IP55.1	19" Wall Housing IP55, Steel Door	12	630 mm	450 mm
691716IP55.1	19" Wall Housing IP55, Steel Door	16	810 mm	450 mm
691720IP55.1	19" Wall Housing IP55, Steel Door	20	1000 mm	450 mm
691707IP55.2	19" Wall Housing IP55, Steel Door	7	410 mm	600 mm
691709IP55.2	19" Wall Housing IP55, Steel Door	9	500 mm	600 mm
691712IP55.2	19" Wall Housing IP55, Steel Door	12	630 mm	600 mm
691716IP55.2	19" Wall Housing IP55, Steel Door	16	810 mm	600 mm
691720IP55.2	19" Wall Housing IP55, Steel Door	20	1000 mm	600 mm

19" Wall Housing IP55, Glass Door

Art.-No.	Bezeichnung	U	Height	Depth
691707IP55.1G	19" Wall Housing IP55, Glass Door	7	410 mm	450 mm
691709IP55.1G	19" Wall Housing IP55, Glass Door	9	500 mm	450 mm
691712IP55.1G	19" Wall Housing IP55, Glass Door	12	630 mm	450 mm
691716IP55.1G	19" Wall Housing IP55, Glass Door	16	810 mm	450 mm
691720IP55.1G	19" Wall Housing IP55, Glass Door	20	1000 mm	450 mm
691707IP55.2G	19" Wall Housing IP55, Glass Door	7	410 mm	600 mm
691709IP55.2G	19" Wall Housing IP55, Glass Door	9	500 mm	600 mm
691712IP55.2G	19" Wall Housing IP55, Glass Door	12	630 mm	600 mm
691716IP55.2G	19" Wall Housing IP55, Glass Door	16	810 mm	600 mm
691720IP55.2G	19" Wall Housing IP55, Glass Door	20	1000 mm	600 mm



Fan Unit, 2-Fans for Wall Housings IP55, Plug & Play

Suitable for installation in wall housing series 1-PART/2-PART, FLAT PACK, IP55 and BASIC

Screw mounting hanging inside below the cabinet roof

Thermostat and mounting material included

Rear-sided power connection via IEC C14 socket (power cable not included, e.g. Art.-No. EK504.x)

Rated voltage 230 V / 50 Hz

Illuminated ON/OFF switch

Material steel sheet

Paint finish RAL7035, light grey

Art.-No.	Description	Air Flow	Noise Level	Colour
691656GR	2-Fan Unit, Plug & Play for Wall Housings	320 m ³ /h	47 dB	RAL7035



Plinth for 19" Wall Housing IP55

For using the IP55 wall housings (Art.-No. 6917xxIP55.x) as standing cabinet
 Plinth height 100 mm, depth 600 mm

Suitable for plane surfaces like e.g. concrete

Screw mounting at the wall housing

Openings for mounting at the floor

Material steel sheet

Paint finish RAL7035, light grey

Art.-No.	Description	For Cabinet Width	For Cabinet Depth
691750WIP.1	Plinth for 19" Wall Housing IP55	600 mm	450 mm
691750WIP.2	Plinth for 19" Wall Housing IP55	600 mm	600 mm



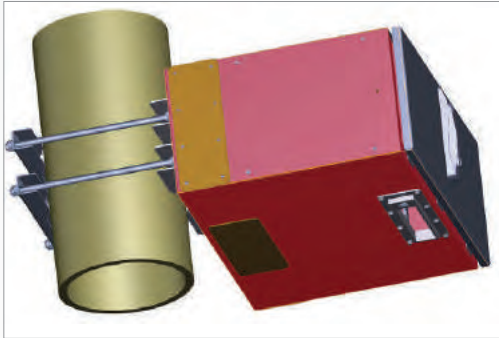
WE CAN DO MORE - CUSTOMIZED SOLUTIONS

This catalogue only gives a brief insight into the variety of solutions that we implement as a manufacturer.

In addition to the standard portfolio, we offer a wide range of special solutions for your projects. Individual colours or printing with customer logo are just as possible as - in addition to the classic steel sheet - outdoor housings made of aluminum sheet or panels as well as stainless steel housings, e.g. for the food sector.

We are happy to develop solutions specifically according to your requirements and guide them through all the necessary steps (design proposal and adaptation, customer approval, certification if necessary, ...) up to delivery.

Numerous successful implementations show our know-how and experience.



Custom 19" 6U aluminum housing IP54, universal to the standing or laying mast or wall mounting, with 6 positions for ROXTEC cable entry



Stainless steel wall housing (INOX) with 2 blind covers. Also possible with viewing window



Stainless steel fire protection distributor F90 for use e.g. in tunnels



Aluminium outdoor housing based on modular panel system, single or double-wall



Your project needs a special colour concept? Talk with your sales contact!

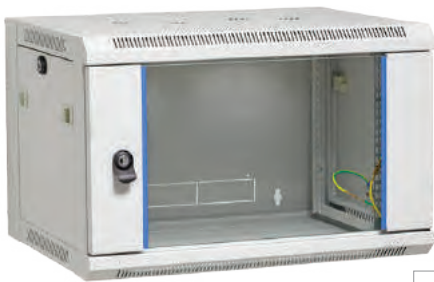
WALL HOUSINGS //



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// YOU MIGHT ALSO BE INTERESTED IN:

LED Cabinet Lighting	P. 233
Shelves	P. 236
Cable Management	P. 240



Delivery unassembled in one carton



19" Wall Housing Flat Pack, RAL7035

Art.-No.	U	Width	Height	Depth
691704FGR.1	4	570 mm	285 mm	450 mm
691706FGR.1	6	570 mm	370 mm	450 mm
691709FGR.1	9	570 mm	500 mm	450 mm
691709FGR.2	9	570 mm	500 mm	600 mm
691712FGR.1	12	570 mm	635 mm	450 mm
691712FGR.2	12	570 mm	635 mm	600 mm
691715FGR.1	15	570 mm	770 mm	450 mm
691715FGR.2	15	570 mm	770 mm	600 mm
691721FGR.2	21	570 mm	1040 mm	600 mm

19" Wall Housing Flat Pack, RAL9005

Art.-No.	U	Width	Height	Depth
691704FTS.1	4	570 mm	285 mm	450 mm
691706FTS.1	6	570 mm	370 mm	450 mm
691709FTS.1	9	570 mm	500 mm	450 mm
691709FTS.2	9	570 mm	500 mm	600 mm
691712FTS.1	12	570 mm	635 mm	450 mm
691712FTS.2	12	570 mm	635 mm	600 mm
691715FTS.1	15	570 mm	770 mm	450 mm
691715FTS.2	15	570 mm	770 mm	600 mm
691721FTS.2	21	570 mm	1040 mm	600 mm

19" Wall Housing BASIC, RAL7035

Art.-No.	U	Width	Height	Depth
WGB-1906GR.45	6	535 mm	304 mm	450 mm
WGB-1906GR.60	6	535 mm	304 mm	600 mm
WGB-1909GR.45	9	535 mm	437 mm	450 mm
WGB-1909GR.60	9	535 mm	437 mm	600 mm
WGB-1912GR.45	12	535 mm	571 mm	450 mm
WGB-1912GR.60	12	535 mm	571 mm	600 mm
WGB-1915GR.45	15	535 mm	707 mm	450 mm
WGB-1915GR.60	15	535 mm	707 mm	600 mm

19" Wall Housing BASIC, RAL9005

Art.-No.	U	Width	Height	Depth
WGB-1906TS.45	6	535 mm	304 mm	450 mm
WGB-1906TS.60	6	535 mm	304 mm	600 mm
WGB-1909TS.45	9	535 mm	437 mm	450 mm
WGB-1909TS.60	9	535 mm	437 mm	600 mm
WGB-1912TS.45	12	535 mm	571 mm	450 mm
WGB-1912TS.60	12	535 mm	571 mm	600 mm
WGB-1915TS.45	15	535 mm	707 mm	450 mm
WGB-1915TS.60	15	535 mm	707 mm	600 mm

19" Wall Housing BASIC, RAL9010

Art.-No.	U	Width	Height	Depth
WGB-1906WS.45	6	535 mm	304 mm	450 mm
WGB-1906WS.60	6	535 mm	30 mm	600 mm
WGB-1909WS.45	9	535 mm	437 mm	450 mm
WGB-1909WS.60	9	535 mm	437 mm	600 mm
WGB-1912WS.45	12	535 mm	571 mm	450 mm
WGB-1912WS.60	12	535 mm	571 mm	600 mm
WGB-1915WS.45	15	535 mm	707 mm	450 mm
WGB-1915WS.60	15	535 mm	707 mm	600 mm



19" Wall Housing Flat Pack

Steel sheet housing with very solid frame, self-ventilated, not pre-assembled
 Front door with window of certified safety glass (4 mm) and latch locking
 Door stop easily changeable left/right due to high-quality, spring-loaded metal hinge pins
 Side walls removable and lockable, lock equal to door lock
 Roof, bottom and rear wall with pre-punched openings for cable entry (230 x 41 mm)
 Roof prepared for mounting of 2 x single fan (Art.-No. 691664)
 Inside 2 x 19" rails front-sided, depth-adjustable
 Cabinet parts completely earthed
 Max. load 60 kg (static, equally distributed), protection degree IP20
 Paint finish RAL7035, light grey / RAL9005, jet black
 Included accessories: 2 x key, earthing cables
 Delivery unassembled in transport packaging (1 carton)



Delivery unassembled in one carton



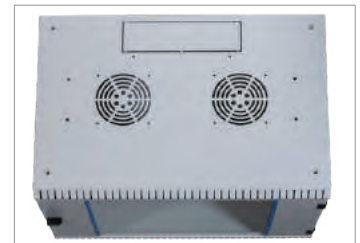
19" Wall Housing BASIC

Steel sheet housing, screwable from outside, not pre-assembled
 Front door fully made of certified safety glass, thickness 4 mm, smoke coloured
 Front door lockable, door opening angle 120°
 Door hinges left-sided
 Sidewalls not detachable
 Roof prepared for mounting of plug & play fan unit (Art.-No. 691656xx)
 Roof and bottom with cable entry 145 x 70 mm
 Inside 2 x 19" profile rails, depth-adjustable, with lateral opening for cable routing
 Paint finish RAL7035, light grey / RAL9005, jet black / RAL9010, pure white
 Width 535 mm, depth 450 / 600 mm
 Max. load 80 kg (static, equally distributed), protection degree IP20
 Incl. key
 Delivery unassembled in 1 carton with handle

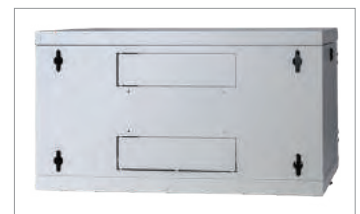


SUITABLE ACCESSORIES (e.g. leveling feet) YOU'LL FIND ON PAGE 224

WALL HOUSINGS 1-PART & 2-PART:
Suitable for plug & play fan unit, Threads M8 for feet or castor sets, especially solid metal hinges



Roof & bottom with rear-sided cable entries (250 x 70 mm) and cutouts for plug & play 2-fan unit



Rear side with 2 x cable entry (250 x 70 mm) and openings for wall mounting



Side walls of the 1-part wall housings are removable and lockable



Black variants of wall housings 1-part and 2-part are available on request - contact our sales team!



19" Wall Housings Fixed, 1-Part

Steel sheet housing with welded frame, completely pre-assembled, self-ventilated
Prepared for Plug & Play 2-fan unit Art.-No. 691656xx
Bottom with 4 x mounting point for leveling feet or castor set (please order separately)
Front door with metal hinges for increased stability
Door stop easily changeable left / right
 Side walls removable, lockable, locks equal to door lock
 Roof, bottom and rear wall with pre-punched openings for cable entry (250 x 70 mm)
 Front-sided 2 x 19" profile rails, galvanised, depth-adjustable
 Front door with latch locking and window made of certified safety glass (thickness 4 mm)
 Internal earthing of all cabinet sections
 Paint finish RAL7035, light grey
 Protection degree IP20
 Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 2 x key
 Delivery in transport packaging, from 30 kg / 12U on pallet

19" Wall Housings Fixed, 1-Part, Depth 400 mm

Art.-No.	U	Width	Height	Max. Load
691704VGR.40	4	600 mm	240 mm	50 kg
691706VGR.40	6	600 mm	330 mm	50 kg
691709VGR.40	9	600 mm	465 mm	50 kg
691712VGR.40	12	600 mm	600 mm	50 kg

19" Wall Housings Fixed, 1-Part, Depth 500 mm

Art.-No.	U	Width	Height	Max. Load
691706VGR.50	6	600 mm	330 mm	50 kg
691709VGR.50	9	600 mm	465 mm	50 kg
691712VGR.50	12	600 mm	600 mm	50 kg
691715VGR.50	15	600 mm	730 mm	50 kg

19" Wall Housings Fixed, 1-Part, Depth 600 mm

Art.-No.	U	Width	Height	Max. Load
691709VGR.60	9	600 mm	465 mm	50 kg
691712VGR.60	12	600 mm	600 mm	50 kg
691715VGR.60	15	600 mm	730 mm	50 kg
691718VGR.60	18	600 mm	860 mm	50 kg
691721VGR.60	21	600 mm	997 mm	50 kg

Max. distance between the 19" levels (only for installed rear 19" level)		
Housing Depth	Max. Distance of 19" Levels	Max. Mounting Depth to Rear Wall
400 mm	315 mm	350 mm
500 mm	415 mm	450 mm
600 mm	515 mm	550 mm

For this assembly variant each ca. 40 mm remain from 19" level to rear wall resp. door.



WITH LEVELING FEET OR CASTORS THE HOUSINGS ARE USABLE AS STANDING OR DESK HOUSING



19" Wall Housing Swiveling, 2-Part

Steel sheet housing with welded frame, pre-assembled, self-ventilated
 Rear sided swing-frame for swiveling the front part of the housing
Prepared for Plug & Play 2-fan unit Art.-No. 691656xx
Bottom with 4 x mounting point for leveling feet or castor set (please order separately)
Front door with metal hinges for increased stability
Door stop not changeable, but for change door opening side complete housing is rotatable about 180° due to fully symmetrical construction
 Pre-punched openings for cable entry optionally from roof or bottom
 Prepared for mounting of single fan units in roof and bottom
 Inside front-sided 2 x 19" profile rails, galvanised, depth-adjustable
 Front door with window made of certified safety glass
 Front door lockable with latch
 Internal earthing of all cabinet sections
 Paint finish: RAL7035, light grey
 Protection degree IP20
 Included in delivery: 1 x brush terminal, 1 x set of captive nuts (PU 20 pcs.), 2 x key
 Delivery in transport packaging, from 30 kg / 12U on pallet



Wall housing 2-part, swiveled out, castor set available as accessory



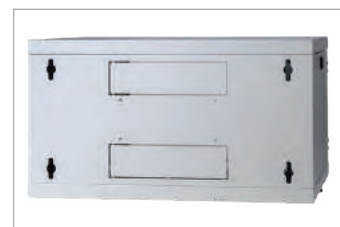
Roof with rear-sided 100 mm frame, cable entry (250 x 70 mm) and cutouts for plug & play 2-fan unit

19" Wall Housing Swiveling, 2-Part, Depth 500 mm

Art.-No.	U	Width	Height	Max. Load
691604VGR.50	4	600 mm	240 mm	30 kg
691606VGR.50	6	600 mm	330 mm	40 kg
691609VGR.50	9	600 mm	465 mm	40 kg
691612VGR.50	12	600 mm	600 mm	40 kg
691615VGR.50	15	600 mm	730 mm	50 kg
691621VGR.50	21	600 mm	997 mm	50 kg

19" Wall Housing Swiveling, 2-Part, Depth 600 mm

Art.-No.	U	Width	Height	Max. Load
691604VGR.60	4	600 mm	240 mm	30 kg
691606VGR.60	6	600 mm	330 mm	40 kg
691609VGR.60	9	600 mm	465 mm	40 kg
691612VGR.60	12	600 mm	600 mm	40 kg
691615VGR.60	15	600 mm	730 mm	50 kg
691621VGR.60	21	600 mm	997 mm	50 kg



Rear side with 2 x cable entry (250 x 70 mm) and openings for wall mounting

Max. distance between the 19" levels (only for installed rear 19" level)		
Housing Depth	Max. Distance of 19" Levels	Max. Mounting Depth to Rear Wall
500 mm	315 mm	450 mm
600 mm	415 mm	550 mm

For this assembly variant each ca. 40 mm remain from 19" level to rear wall resp. door.



19" Mounting Rails for Wall Housings 1-Part/2-Part, Set 2 Pieces

For use as rear-sided 19" level in wall housings 1-part/2-part (Art.-No. 6917xxVGR.x/VTS.x and 6916xxVGR.x/VTS.x)
 Material steel, galvanised
 Delivery as set of 2 incl. mounting material

Art.-No.	Description
691776.06	19" Mounting Rails 6U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.09	19" Mounting Rails 9U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.12	19" Mounting Rails 12U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.15	19" Mounting Rails 15U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.18	19" Mounting Rails 18U for Wall Housings 1-Part/2-Part, Set 2 Pieces
691776.21	19" Mounting Rails 21U for Wall Housings 1-Part/2-Part, Set 2 Pieces



NO MORE CABLING EFFORT:
 Plug & Play - Mount and turn on
 Integrated thermostat and on/off switch
 Mains connection IEC C14 (iec plug)



Fan Unit, 2-Fans for Wall Housings, Plug & Play

Suitable for installation in wall housing series 1-PART/2-PART, FLAT PACK and IP55
 Screw mounting hanging inside below the cabinet roof
 Thermostat and mounting material included
 Rear-sided power connection via IEC C14 socket (power cable not included, e.g. Art.-No. EK504.x)
 Rated voltage 230 V / 50 Hz
 Illuminated on/off switch
 Material steel sheet



Integrated thermostat and on/off switch



Housing variant black in mounting position

Art.-No.	Description
691656GR	2-Fan Unit, Plug & Play for Wall Housings, RAL7035
691656TS	2-Fan Unit, Plug & Play for Wall Housings, RAL9005
691656WS	2-Fan Unit, Plug & Play for Wall Housings, RAL9010



Power Cable CEE7/7 90° - C13 180°, black

10 A / 250 V VDE tested
 Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK504.1V2	0.75 mm ²	Black	1.0 m
EK504.2V2	0.75 mm ²	Black	2.0 m



Mounted compact turning handle at wall housing

Compact Turning Handle for Profile Half Cylinder

Enables the use of an individual profile half-cylinder in doors of wall cabinets 1-part/2-part and Flat Pack
 Suitable for use with profile half-cylinder acc. to DIN 18252 / EN1303 (e.g. Art.-No. 46087.x)
 Easiest mounting, included latch limits the rotation angle to 90°
 Delivery without profile half-cylinder

Art.-No.	Description
699989	Compact Turning Handle for PHC, incl. Latch



Leveling Feet for 19" Wall Housings 1-Part/2-Part

Leveling feet for cabinet series OFFICE and wall housings 1-part/2-part
 Thread M8, height 56 mm
 With locknut

Art.-No.	Description
OFF-NIV01	Leveling Feet for Cabinet Series OFFICE and Wall Housings, 4 Pcs. M8



Castor Set for 19" Wall Housings 1-Part/2-Part

Plastic castors with steel thread bolt M8
 Height 68 mm (without thread bolt)
 Included in delivery: 2 x castor with brake, 2 x castor without brake

Art.-No.	Description
OFF-ROL01	Castor Set for Cabinet Series OFFICE and Wall Housings, 4 Pcs.



The swiveling 19" level enables different mounting positions and -depths up to 360 mm



AVAILABLE IN THREE COLOUR VARIANTS



Extremely low space requirement due to the height of only 150 mm



19" Wall Housing 3U+5U Vertical

Steel sheet housing for wall mounting, completely pre-assembled, self-ventilated
Wall raising (overall depth) only 150 mm
 3U for vertical mounting of 19" components, max. depths each 1 x 360 / 340 / 300 mm
 5U additionally for horizontally mounting of 19" components, max. depth 80 mm
 3U level 180° swiveling
 Cover with window, hinged and lockable
 Pre-punched ventilation openings in housing
 Pre-punched cable clamps in rear wall
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black / RAL9010, white
 Protection degree IP20
 Included in delivery: 1 x key



Rear side with various possibilities for fixing and cable entry

Art.-No.	U	Width	Height	Colour
691703V	8	537 mm	475 mm	RAL7035
691703VTS	8	537 mm	475 mm	RAL9005
691703VWS	8	537 mm	475 mm	RAL9010



Application example 1:
19" level in upright position, 3U with mounting depth up to 360 mm are usable



Application example 2:
19" level is angled, 3U with mounting depth up to 140 mm and 4U rear sided are usable



1 HOUSING -
2 DIMENSIONS:
5U 19" vertically or
10U 10" horizontally



Wall housing opened, rear-sided the cutouts for 2 x single fan Art.-No. 691664



19"/10" Wall Mount Cabinet 5U Vertical / 10U Horizontal

- Steel sheet housing 5U vertical, completely pre-assembled
- Front-sided 19" level made of punched profile
- Front door with window made of certified safety glass (thickness 4 mm)
- Front door with latch
- Left side wall hinged for easy access
- Right side wall with holes for wall mounting
- Rear wall screwed, prepared for mounting of 2 fan units
- Internal earthing of all cabinet sections
- Additional earthing bolt M6 inside the housing
- Pre-punched openings (250 x 60 mm) for cable entry from roof or bottom
- Paint finish RAL7035, light grey
- Protection degree IP20
- Included in delivery: 2 x brush terminal, 1 x set of captive nuts (20 pcs.), 2 x key
- Delivery in transport packaging



Cable entry with brush



Various mounting options



Central grounding bolt M5

Art.-No.	U	Width	Height	Depth
691706V	5	322 mm	543 mm	500 mm



Application example
(Delivery without components)



19" 4U Mini Network Frame

- The mini network frame is the ideal component for accommodating 19" components in smaller networking solutions
- Sturdy sheet steel frame, non-slip
- Dimensions: (W x H x D) 490 x 230 x 295 mm

Art.-No.	Description
699996	19" 4U Mini Network Frame, RAL7035

19" Wall Brackets, Depth-Adjustable, RAL7035 Light Grey

Art.-No.	U	Width	Height	Max. Load
691831GR.2	2	528 mm	89 mm	5 kg
691831GR.3	3	528 mm	134 mm	10 kg
691831GR.4	4	528 mm	178 mm	10 kg
691831GR.6	6	528 mm	267 mm	15 kg
691831GR.9	9	528 mm	400 mm	15 kg

19" Wall Brackets, Depth-Adjustable, RAL9005 Jet Black

Art.-No.	U	Width	Height	Max. Load
691831TS.2	2	528 mm	89 mm	5 kg
691831TS.3	3	528 mm	134 mm	10 kg
691831TS.4	4	528 mm	178 mm	10 kg
691831TS.6	6	528 mm	267 mm	15 kg
691831TS.9	9	528 mm	400 mm	15 kg

19" Wall Brackets, Depth-Adjustable, RAL9010 Pure White

Art.-No.	U	Width	Height	Max. Load
691831WS.2	2	528 mm	89 mm	5 kg
691831WS.3	3	528 mm	134 mm	10 kg
691831WS.4	4	528 mm	178 mm	10 kg
691831WS.6	6	528 mm	267 mm	15 kg
691831WS.9	9	528 mm	400 mm	15 kg



The mounting depth of the wall brackets is adjustable



19" Wall Brackets, Depth-Adjustable

19" wall bracket with adjustable mounting depth (225 .. 345 mm)
Material steel
Paint finish RAL7035, light grey / RAL9005, jet black / RAL9010, pure white



Single Fan Unit for Wall Housing

Prepared for mounting in bottom or roof of all 19" wall-mounting cabinets 1-part and 2-part
Mounting material for fixing, power supply and earthing included
Rated voltage: 230 V, 50 Hz

Art.-No.	Description
691664	Fan for 19" Wall Mounting Cabinets, 120 mm, 230 V / 50 Hz



Thermostat

Suitable for roof fan unit and single fan units
Adjustable range -10°C .. +80°C
Mounting at the 19" profiles

Art.-No.	Description
691642.1	Thermostat incl. Bracket, for Fan Units 69165xV3 or Single Fan 691664



Filter Panel for 691664F

Filter Panel 120 mm for single fan Art.-No. 691664

Art.-No.	Description
691664F	Filter Panel for 691664, Mounting on 120 mm Fan



Power Cable Schuko 90° - Open End WES, black

16 A / 250 V VDE tested
Open End assembled with wire end sleeves
Wire end sleeves for 1.8 m: L = 6 mm, Ø 1.7 mm, yellow insulator
Wire end sleeves for 3 + 5 m: L = 8 mm, Ø 1.7 mm, red insulator
Cable colour black
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK504AE.1,8	0.75 mm ²	Black	1.8 m
EK504AE.3	1.00 mm ²	Black	3.0 m
EK504AE.5	1.00 mm ²	Black	5.0 m



Wide cable entry at the rear side (177 x 280 mm)



10" Wall Housings, Depth 300 mm

Self-ventilated steel sheet housing, welded
 Front door lockable, with latch, door opening angle > 180°
 Front door with window made of certified safety glass (4 mm)
 2 x 10" profile rails, depth adjustable, usable mounting depth 203..263 mm
 Cable entry possible from top, bottom (opening 44 x 115 mm) or rear-sided (177 x 280 mm)
 Bottom with 4 x thread for leveling feet M8 (Art.-No. OFF-NIV01)
 Roof with pre-punched opening for single fan
 Long holes for wall mounting
 Max. load 60 kg
 Paint finish RAL7035, light grey / RAL9005 jet black
 Included in delivery: 2 x brush, 2 x key
 Delivery in transport packaging

Art.-No.	U	Width	Height	Colour
691803GR.4	4	300 mm	234 mm	RAL7035
691803GR.6	6	300 mm	322 mm	RAL7035
691803GR.9	9	300 mm	455 mm	RAL7035
691803TS.4	4	300 mm	234 mm	RAL9005
691803TS.6	6	300 mm	322 mm	RAL9005
691803TS.9	9	300 mm	455 mm	RAL9005



Application example (Delivery without components)



Mini Rack 10"

Self-ventilated steel sheet housing
 Front door with window made of safety glass (4 mm)
 Door opening angle 180°, lockable door lock with latch
 The special construction of the door prevents possible kinking of the inserted patch cables
 Max. mounting depth of 10" components 155 mm
 Cable infeed optionally from top or bottom, openings 120 mm x 35 mm
 Slots for wall mounting
 Material steel sheet, paint finish RAL7035, light grey
 Delivery in transport packaging

Art.-No.	U	Width	Height	Colour
691801	7	300 mm	355 mm	RAL7035



10" 1U Shelf

Placing area in the 10" level e.g. for routers
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black

Art.-Nr.	Description	Colour
691820GR.1	10" 1U Shelf	RAL7035
691820TS.1	10" 1U Shelf	RAL9005



10" 1U Dummy Plate

Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
691821	10" 1U Blanking Panel	RAL7035
691821TS	10" 1U Blanking Panel	RAL9005



10" 1U Distribution Panel for 12 x Keystone

With rear-sided cable bracket
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery unassembled

Art.-No.	Description	Colour
691826	10" 1U Distribution Panel for 12 x Keystone	RAL7035
691826TS	10" 1U Distribution Panel for 12 x Keystone	RAL9005



10" 1U Cable Routing Panel

For cable routing at the 10" level
With 3 plastic brackets, bracket length ca. 70 mm
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
691820GR.2	10" 1U Cable Routing Panel	RAL7035
691820TS.2	10" 1U Cable Routing Panel	RAL9005



691822



691824

Delivery unassembled
(without adapters)



10" 1U FO Front Panels

Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery unassembled

Art.-No.	Description	Colour
691822	10" 1U FO Front Panel 8 x SC simplex	RAL7035
691824	10" 1U FO Front Panel 8 x SC Duplex	RAL7035



SUITABLE 10" COMPONENTS YOU WILL FIND HERE:

SOCKET STRIPS IN 10" FORMAT
ON PAGE 254

PATCH PANELS IN 10" FORMAT
ON PAGE 150

ACTIVE COMPONENTS IN 10" FORMAT
ON PAGE 315

**AN EVEN WIDER CHOICE CAN BE
FOUND IN OUR ONLINE SHOP!**

INNER ACCESSORIES //



Roof Fan Units	P. 231
Fans, Heater, Thermostat	P. 232
Lighting Units	P. 233
DIN Rail Holder, Energy Distribution Box, Sliding Rails	P. 234
Shelves	P. 236
Keyboard & Document Drawers	P. 239
Cable Management	P. 240
Dummy Plates	P. 245
Earthing & Locking Accessories	P. 246
Cage Nuts & 19" Labeling System	P. 247

// YOU MIGHT ALSO BE INTERESTED IN:

FO Jumper Cable	P. 79
Active Components (Switches etc.)	P. 312



Roof Fan 2-/4-Way for PRO, incl. Thermostat

Fan unit with integrated thermostat for use in roof of cabinets PRO
For 4-fan variant: 3-stage switch (0/I/II) for speed reduction („Silent-Mode“) for especially quietly operation
 For 2-fan variant: ON/OFF switch
 Easy mounting at prepared opening A (380 x 380 mm) hanging at cabinet roof
 Power connector IEC C14, power cable please order separately, e.g. Art.-No. EK504.xV2
 Housing material plastic
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: fan unit incl. thermostat, mounting accessories



Art.-No.	Description	No. of Fans	Air Flow, Free-Blowing	Noise Level	Remark	Colour
PRO-LFD04AT.GR	Roof Fan 2-/4-Way for PRO & ESV, Opening A, incl. Thermostat	4	660 (Silent Mode: 330) m³/h	54 (Silent Mode: 44) dB(A)	Switchable Silent Mode	RAL7035
PRO-LFD02AT.GR	Roof Fan 2-/4-Way for PRO & ESV, Opening A, incl. Thermostat	2	330 m³/h	48 dB(A)		RAL7035
PRO-LFD04AT.TS	Roof Fan 2-/4-Way for PRO & ESV, Opening A, incl. Thermostat	4	660 (Silent Mode: 330) m³/h	54 (Silent Mode: 44) dB(A)	Switchable Silent Mode	RAL9005
PRO-LFD02AT.TS	Roof Fan 2-/4-Way for PRO & ESV, Opening A, incl. Thermostat	2	330 m³/h	48 dB(A)		RAL9005



Roof Fan 2-Way for Co Location PRO and EFB-Server

Fan unit with integrated thermostat for use in roof of cabinets Co Location PRO and EFB-Server
 Easy mounting at prepared opening B (210 x 380 mm) hanging at cabinet roof
 Housing material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: fan unit incl. thermostat, mounting accessories

Art.-No.	Description	No. of Fans	Air Flow, Free-Blowing	Noise Level	Colour
PRO-LFD02BT.GR	Roof Fan 2-Way, with Thermostat, for Co Location PRO and ESV	2	330 m³/h	48 dB(A)	RAL7035
PRO-LFD02BT.TS	Roof Fan 2-Way, with Thermostat, for Co Location PRO and ESV	2	330 m³/h	48 dB(A)	RAL9005



Cabinet Heater 200/400 W

Compact heating module with fan
 Fan output 10 m³/h
 2 output levels (heating output), controlled via connection type
 Independent circuit for the fan
 Scope of delivery: heater, DIN rail 35 x 7.5 mm, 2 x holders, screw terminals for connection

Art.-No.	Description
691657.1	Cabinet Heater 200/400 W, DIN-Rail Mounting



Single Fan Unit for Wall Housing

Prepared for mounting in bottom or roof of all 19" wall-mounting cabinets
 1-part and 2-part
 Mounting material for fixing, power supply and earthing included
 Rated voltage: 230 V, 50 Hz

Art.-No.	Description
691664	Single Fan Unit for Wall Housing



19" 1U Temperature Controller, Electronic, 2 Relais

Control of a fan at overtemperature (via relais 1)
 Control of a second fan at overtemperature (via relais 2)
 Control of a heater at undertemperature (via relais 1)
 Control of a fan at overtemperature (via relais 2)
 Digital temperature display (actual value)
 Measuring range: -40°C up to +90°C
 Outputs: 2 relais, dry, programmable (250 V AC / 2 A)
 Free programmable switching temperatures
 Display of relay status
 Type of sensor: diode, cable length 3 m
 Power supply: 230 V / 50 Hz
 Connection via rear-sided screw terminals
 Recommended Accessory (not included): power cable Euro-Open End with wire-end sleeves Art.-No. EK502AE.x

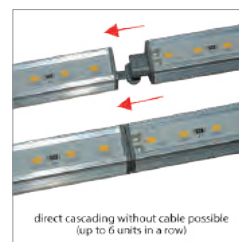
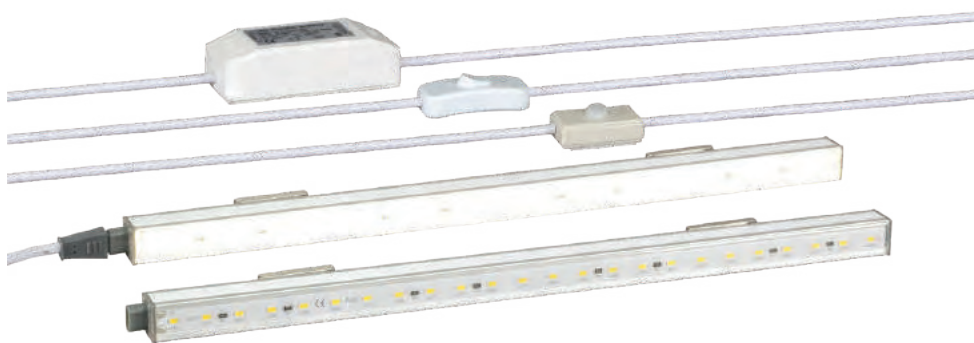
Art.-No.	Description
691642T.1	19" 1U Electronic Temperature Controller, 2 Relais, RAL7035
691642TTS.1	19" 1U Electronic Temperature Controller, 2 Relais, RAL9005



Thermostat

Art.-No. 691642.1 for control of fan units (blue button)
 Art.-No. 691642.2 for control of heaters (red button)
 Adjustable range -10°C .. +80°C
 Mounting at the 19" profiles
 Thermostat and mounting material are included in delivery of the roof fan units

Art.-No.	Description
691642.1	Thermostat incl. Bracket, for Fan Units 69165xV3 or Single Fan 691664
691642.2	Thermostat incl. Bracket, for Heater 691657.1



LED Magnetic Lighting Unit, 230 V AC with IR-Sensor and Switch

LED lighting unit in high-quality aluminium profile for magnetic mounting at any position in cabinet
 Selective lighting due to turnable magnetic holder (turning angle ca. 180°)
 IR sensor replaces door contact switch: lighting unit is turned on for 45 sec. at motion detection
 Self-adhesive sensor and power supply for easy mounting in cabinet
 At glass and non-perforated steel doors the sensor can be easily glued directly onto the 19" profile for turning light on when door is opened, for perforated doors mounting sidely in the cabinet, e.g. at a depth-rail, is recommended

Technical Data LED:

24 x LED type 5730
 This lighting unit contains a light source in energy efficiency class F
 LED light colour warm white, colour temperature 3500 K, Luminosity 420 Lm,
 Colour rendering index Ra > 80

Technical Data LED Driver:

Input 100 .. 240 V AC, 50/60 Hz, 0.6 A
 Output 24 V DC, 1250 mA, 30 W max.
 Dimensions (LxWxH) 115 x 45 x 28 mm, Material plastic, white

Technical Data Sensor:

Detection radius 1.2 m
 Switch-on time 45 s
 Dimensions (LxWxH) 40 x 20 x 10 mm, Material plastic, white



Cascading Cable for LED Lighting 698026.x

For connecting up to 6 pieces of LED magnetic lighting units 698026.x
 Cable length 1.25 m
 Reverse polarity protected plug/jack
 Colour cable white, plugs grey

Art.-No.	Description
698026.1	Set of LED Lighting Unit + Connection Kit 230 V AC, IR-Sensor, Switch

Art.-No.	Description
698026.3	Cascading Cable 1.25 m, White, for LED Unit 698026.x



19" 1U Lighting Unit „Basic LED“

Ready-to-connect lighting unit 19" 1U
 For horizontal mounting in the 19" level of network and server cabinets
 Operating voltage 100 .. 240 V AC, 8 W
 This lighting unit contains a lighting source in energy efficiency class E
 LED light colour warm-white, light output 800 Lm, Ra > 80
 Materials holder stainless steel, body aluminium, cover plastic
 Dimensions (WxHxD) 480 x 44 x 26 mm
 Delivery incl. power cable 2 m white, with Euro plug and switch

Art.-No.	Description
698023.3	19" 1U Lighting Unit „Basic LED“



Cable Set PRO for Lighting Unit „Basic“, incl. Door Contact Switch

Suitable for cabinet series PRO (not for CLASSIC)
Plug & Play - no further wiring work necessary!
 Connection set Euro plug to Euro-8 jack incl. door contact switch and mounting bracket
 Suitable for connection and control of lighting unit „Basic“ or other devices with Euro-8 plug
 Completely prewired as opener (NC) (door opening switches lighting unit on)
 Cable H03VVH2-F 2G 0,75 mm², 2 m + 1 m
 Lighting unit not included in delivery

Art.-No.	Description
PRO-TKS01	Connection Set PRO for Lighting Unit „Basic“, incl. Door Contact Switch



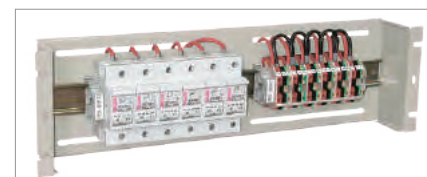
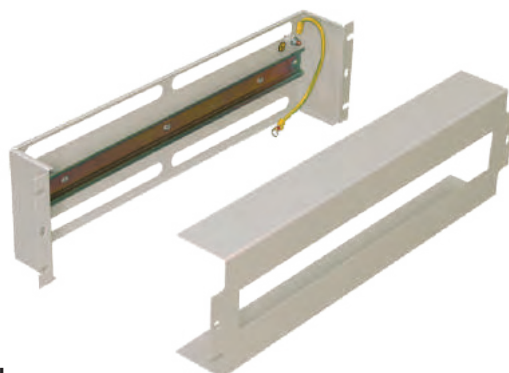
19" 4U Universal DIN-Rail Holder

For carrying DIN rail components
Also suitable for wall- and ceiling mounting
 DIN rail according to DIN EN 60715 TH35 (35 x 7.5 mm)
 Width of DIN rail 435 mm
 DIN rail depth-adjustable from ca. 55 .. 165 mm (step-less)
 Rear-sided C-rail for cable fixing, height-adjustable
 DIN-rail is mountable also horizontally



Application example - delivery without components

Art.-No.	Description
53719.1V2	19" 4U Universal DIN Rail Holder



Application example - delivery without components

19" 3U Power Distribution/Circuit Breaker

For carrying DIN rail modules like circuit breakers, outlets etc.
 Capacity 22 modules to 17.5 mm
 Front opening 402.5 x 45.5 mm
 Rear-sided earthing bolt M5 incl. cable
 Dimensions (W x H x D) 482.6 x 133 x 60 mm
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Mounting note: For easy opening and closing of the front cover, a captive nut M6 should be installed behind the left & right cover screw.

Art.-No.	Description
691277.1V2	19" 3U Power Distribution/Circuit Breaker Housing for 22 Modules 17.5 mm, RAL7035
691277TS.1V2	19" 3U Power Distribution/Circuit Breaker Housing for 22 Modules 17.5 mm, RAL9005

DIN Rail for 19" Mounting

Dimensions 483 x 35 x 7.5 mm
 With 2 x 19" mounting holes
 Material steel, galvanised

Art.-No.	Description
691274.1V2	DIN Rail 35 x 7.5 mm for 19" Mounting



USER FRIENDLY:
 All three Contacts are located at the bottom side

Socket Outlet 1-Way for DIN-Rail

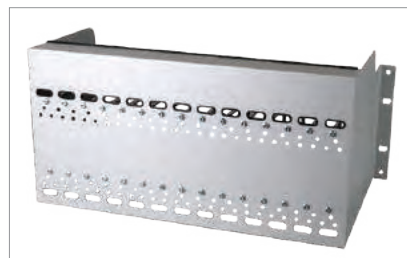
Outlet with protective contact for mounting at DIN-rail TS35 („Hat Rail“)
 Rated voltage/ current 250 V / 16 A
 Wire max. 10 mm²
 Colour grey (red,yelloow ertc. on request)

Art.-No.	Description
EK633.1	Outlet 1-Way for DIN-Rail, Grey
EK633.2	Outlet 1-Way for DIN-Rail, with Cover, Grey
EK633.3	Outlet 1-Way for DIN-Rail, France (UTE), Grey

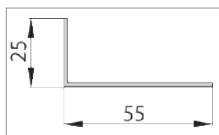
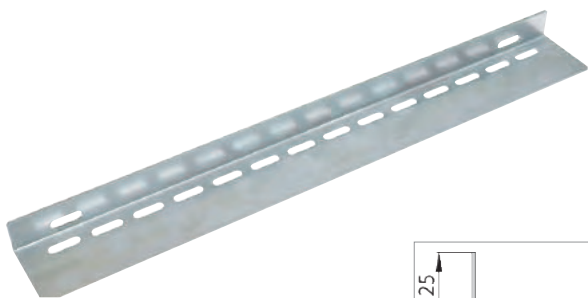


19" 5U Tablet Holder, RAL7035

Module for vertical carrying of 16, 20 or 27 devices like tablets, laptops etc.
 Available capacities: 16 trays of 22 mm each, 20 trays of 16.3 mm each or 27 trays of 10.5 mm each
 Stainless steel brackets adjustable for different tray widths
 Soft standing area and edge protection for avoiding of scratches
 Rear-sided cable entries incl. edge protection for charging cables
 Material steel, brackets stainless steel
 Paint finish RAL7035, light grey



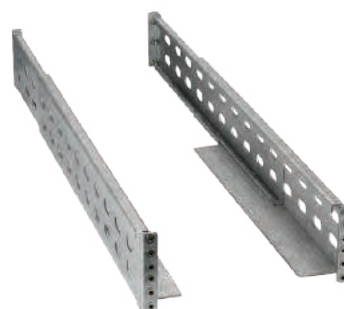
Art.-No.	Description	Trays	Colour
691777GR.1	19" 5U Tablet Holder	16 x 22 mm	RAL7035
691777GR.2	19" 5U Tablet Holder	20 x 16 mm	RAL7035
691777GR.3	19" 5U Tablet Holder	27 x 10 mm	RAL7035



Heavy-Duty Sliding Rails

For mounting of heavy devices in network or server cabinets
 Mounting at the front and rear-sided 19" profiles
 Max. load 100 kg
 Material steel sheet
 PU 2 pieces

Art.-No.	Depth	For Cabinet Depth	Max. Load
PRO-SGL06	350 mm	600 mm	100 kg
PRO-SGL08	550 mm	800 mm	100 kg
PRO-SGL10	750 mm	1000 mm	100 kg
PRO-SGL12	950 mm	1200 mm	100 kg



Sliding Rails, Telescopic

For mounting of heavy devices e.g. servers
 Telescopic extendable
 Material steel, galvanised
 Max. load 50 kg
 Delivery as set of 2 left/right

Art.-No.	Depth	For Cabinet Depth	Max. Load
PRO-GLT06	350 – 600 mm	600 – 800 mm	50 kg
PRO-GLT08	550 – 900 mm	800 – 1000 mm	50 kg
PRO-GLT10	850 – 1150 mm	1000 – 1200 mm	50 kg



Do you know the problem?

Two hands hold the switch, the server, patch panel or the UPS which is to be mounted straight into the 19" rack. How to install the screws? Now you would need a „third hand“ because releasing is impossible!

This mounting aid supports you while installing 19" components. It is fixed at one or two sides of the 19" profile, to reliably hold devices while mounting into the cabinet. So one or two hands remain free for working. No second person is necessary anymore.



Application example

Mounting Aid „3rd Hand“

Supports 19" components while installation
 Suitable for all 19" profiles
 Very solid design
 Material steel sheet, galvanised
 Delivery as set of 2 pieces

Art.-No.	Description
39850.1	Mounting Aid for 19" Components, 2 Pieces in Set



19" 1U Shelves, Depth 150 / 250 mm, 5/10 kg

Shelves with fixed depth for 19" mounting
Optional rear-sided mounting brackets and lashing strap for devices available
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery incl. mounting accessories

Art.-No.	Description	Depth	Max. Load	Colour
691650GR.1A	19" 1U Shelf	150 mm	5 kg	RAL7035
691650GR.1B	19" 1U Shelf	250 mm	10 kg	RAL7035
691650TS.1A	19" 1U Shelf	150 mm	5 kg	RAL9005
691650TS.1B	19" 1U Shelf	250 mm	10 kg	RAL9005



19" 2U Shelves, Depth 300 / 400 mm, 22 kg

Shelves with fixed depth for 19" mounting
Optional rear-sided mounting brackets and lashing strap for devices available
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery incl. mounting accessories

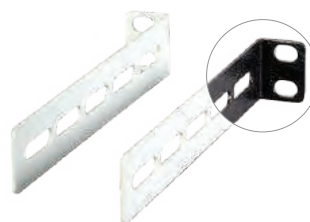
Art.-No.	Description	Depth	Max. Load	Colour
691650GR.2A	19" 2U Shelf	300 mm	22 kg	RAL7035
691650GR.2B	19" 2U Shelf	400 mm	22 kg	RAL7035
691650TS.2A	19" 2U Shelf	300 mm	22 kg	RAL9005
691650TS.2B	19" 2U Shelf	400 mm	22 kg	RAL9005



19" 3U Shelves, Depth 450 mm, 36 kg

Shelves with fixed depth for 19" mounting
Optional rear-sided mounting brackets and lashing strap for devices available
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery incl. mounting accessories

Art.-No.	Description	Depth	Max. Load	Colour
691650GR.3	19" 3U Shelf	450 mm	36 kg	RAL7035
691650TS.3	19" 3U Shelf	450 mm	36 kg	RAL9005



Brackets Set for Shelves 1/2/3U, Art.-No. 691650xx

For rear-sided mounting of the shelves Art.-No. 691650xx.x
Material steel sheet
Paint finish RAL7035, light grey / RAL9005, jet black
Delivery incl. mounting accessories

Art.-No.	Description	Colour
691650GR.W	Brackets Set for Shelves 1/2/3U, Art.-No. 691650xx	RAL7035
691650TS.W	Brackets Set for Shelves 1/2/3U, Art.-No. 691650xx	RAL9005



Lashing Strap for Shelves 1/2/3U

For securing loose parts or devices against falling
For use with the shelves 691650xx.x
Fixing at the lateral slots of the shelves
Length Material plastic, hook and loop tape, 2 stripes ca. 48 cm each

Art.-No.	Description
691650.S	Lashing Strap for Shelves 1/2/3U





19" 2U Pull-Out Shelves, Front Mounting, Max. Load 20 kg

For use in all 19" network and server cabinets
 For fixing at the front sided 19" profiles
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x shelf incl. mounting accessories

Art.-No.	Usable Depth	Max. Load	Colour
691667GR.2A	355 mm	20 kg	RAL7035
691667GR.2B	455 mm	20 kg	RAL7035
691667GR.2C	555 mm	20 kg	RAL7035
691667TS.2A	355 mm	20 kg	RAL9005
691667TS.2B	455 mm	20 kg	RAL9005
691667TS.2C	555 mm	20 kg	RAL9005



19" 1U Pull-Out Shelves, Max. Load 30 kg

For use in all 19" network and server cabinets
 Fixing at the front and rear-sided 19" profiles necessary
 Mounting depth rear-sided adjustable (+0 .. 100 mm)
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x shelf incl. mounting accessories

Art.-No.	Depth	Max. Pull-Out	For Cabinet Depth	Colour
691651AGR.6	350 mm	350 mm	600 mm	RAL7035
691651AGR.8	550 mm	550 mm	800 mm	RAL7035
691651AGR.10	750 mm	750 mm	1000 mm	RAL7035
691651AGR.12	950 mm	950 mm	1200 mm	RAL7035
691651ATS.6	350 mm	350 mm	600 mm	RAL9005
691651ATS.8	550 mm	550 mm	800 mm	RAL9005
691651ATS.10	750 mm	750 mm	1000 mm	RAL9005
691651ATS.12	950 mm	950 mm	1200 mm	RAL9005



19" 1U Shelves, Fixed, Max. Load 120 kg

For use in all 19" network and server cabinets
 Fixing at the front and rear-sided 19" profiles necessary
 Mounting depth rear-sided adjustable (+0 .. 100 mm)
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x shelf incl. mounting accessories

Art.-No.	Depth	For Cabinet Depth	Max. Load	Colour
691651FGR.6	350 mm	600 mm	120 kg	RAL7035
691651FGR.8	550 mm	800 mm	120 kg	RAL7035
691651FGR.10	750 mm	1000 mm	120 kg	RAL7035
691651FGR.12	950 mm	1200 mm	120 kg	RAL7035
691651FTS.6	350 mm	600 mm	120 kg	RAL9005
691651FTS.8	550 mm	800 mm	120 kg	RAL9005
691651FTS.10	750 mm	1000 mm	120 kg	RAL9005
691651FTS.12	950 mm	1200 mm	120 kg	RAL9005



19" 1U Shelves with Cable Rounting, Max. Load 120 kg

For use in all 19" network and server cabinets
 With front-sided cable entries and cable routing brackets
 Fixing at the front and rear-sided 19" profiles necessary
 Mounting depth rear-sided adjustable (+0 .. 100 mm)
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x shelf incl. mounting accessories

Art.-No.	Depth	For Cabinet Depth	Max. Load	Colour
691651KGR.6	350 mm	600 mm	120 kg	RAL7035
691651KGR.8	550 mm	800 mm	120 kg	RAL7035
691651KGR.10	750 mm	1000 mm	120 kg	RAL7035
691651KGR.12	950 mm	1200 mm	120 kg	RAL7035
691651KTS.6	350 mm	600 mm	120 kg	RAL9005
691651KTS.8	550 mm	800 mm	120 kg	RAL9005
691651KTS.10	750 mm	1000 mm	120 kg	RAL9005
691651KTS.12	950 mm	1200 mm	120 kg	RAL9005



19" 0.5U Shelves, Fixed, Max. Load 70 kg

For use in all 19" network and server cabinets
 Fixing at the front and rear-sided 19" profiles necessary
 Mounting depth rear-sided adjustable (+0 .. 100 mm)
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x shelf incl. mounting accessories

Art.-No.	Depth	For Cabinet Depth	Max. Load	Colour
691641FGR.6	350 mm	600 mm	70 kg	RAL7035
691641FGR.8	550 mm	800 mm	70 kg	RAL7035
691641FGR.10	750 mm	1000 mm	70 kg	RAL7035
691641FGR.12	950 mm	1200 mm	70 kg	RAL7035
691641FTS.6	350 mm	600 mm	70 kg	RAL9005
691641FTS.8	550 mm	800 mm	70 kg	RAL9005
691641FTS.10	750 mm	1000 mm	70 kg	RAL9005
691641FTS.12	950 mm	1200 mm	70 kg	RAL9005



19" 1U Heavy-Duty Shelves, Depth-Adjust., Max. Load 150 kg

For use in all 19" network and server cabinets
 Fixing at the front and rear-sided 19" profiles necessary
 Mounting depth adjustable with self-tapping screws
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x shelf incl. mounting accessories

Art.-No.	Depth	For Cabinet Depth	Max. Load	Colour
691653GR.6	350 – 600 mm	600 mm	150 kg	RAL7035
691653GR.80	500 – 900 mm	800 - 1000 mm	150 kg	RAL7035
691653TS.6	350 – 600 mm	600 mm	150 kg	RAL9005
691653TS.80	500 – 900 mm	800 - 1000 mm	150 kg	RAL9005



Heavy-Duty Pull-Out Shelf, Max. Load 140 kg

For mounting in 1000 or 1200 mm deep cabinets PRO or EFB-Server
Side mounting on 6 x 19" profiles (additional middle profiles necessary, Art.-No. PRO-MPRxx resp. ESV-MPRxx)
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x shelf incl. mounting accessories

Art.-No.	Usable Depth	For Cabinet Depth	Max. Load	Colour
691640AGR.02	700 mm	1000 - 1200 mm	140 kg	RAL7035
691640ATS.02	700 mm	1000 - 1200 mm	140 kg	RAL9005



Heavy-Duty Shelf, Fixed, Max. Load 200 kg

For mounting in 1000 or 1200 mm deep cabinets PRO or EFB-Server
Mounting on 6 x 19" profiles (additional middle profiles necessary, Art.-No. PRO-MPRxx resp. ESV-MPRxx)
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery: 1 x shelf incl. mounting accessories

Art.-No.	Depth	For Cabinet Depth	Max. Load	Colour
691640FGR.02	700 mm	1000 - 1200 mm	200 kg	RAL7035
691640FTS.02	700 mm	1000 - 1200 mm	200 kg	RAL9005



19" 1U Keyboard Drawer, Touchpad, Lockable

Very solid keyboard drawer incl. keyboard and touchpad
 For installation in 19" cabinets, ball-bearing keyboard drawer
 Connection via USB, cable length 2 m
 Industrial keyboard with normal sized keys and Windows function keys
 Integrated touchpad with 2 mouse keys
 Safety lock with two keys, solid metal handle
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery incl. mounting accessories
 Optional: 2 x mounting rail incl. screws for additional fixing onto the rear-sided profiles

Also available with US Layout

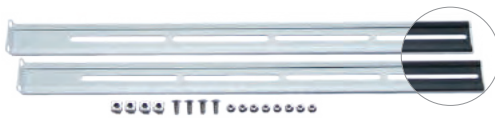
Art.-No.	Description	Weight	Colour
691649.1TP	19" 1U Keyboard Drawer DE, Touchpad, Lockable	5.3 kg	RAL7035
691649TS.1TP	19" 1U Keyboard Drawer DE, Touchpad, Lockable	5.3 kg	RAL9005
691649TS.1TP-US	19" 1U Keyboard Drawer US, Touchpad, Lockable	5.3 kg	RAL9005



19" 1U Keyboard Drawer, Trackball, Lockable

Very solid keyboard drawer incl. keyboard and trackball
 For installation in 19" cabinets, ball-bearing keyboard drawer
 Connection via USB and PS/2, cable length 2 m
 Industrial keyboard with normal sized keys and Windows function keys
 Integrated optical trackball 14 mm with 2 mouse keys
 Safety lock with two keys, solid metal handle
 Paint finish RAL7035, light grey / RAL9005, jet black
 Delivery incl. mounting accessories
 Optional: 2 x mounting rail incl. screws for additional fixing onto the rear-sided profiles

Art.-No.	Description	Weight	Colour
691649.1	19" 1U Keyboard Drawer DE, Touchpad, Lockable	6.3 kg	RAL7035
691649TS.1	19" 1U Keyboard Drawer DE, Touchpad, Lockable	6.3 kg	RAL9005



Rear-Sided Mounting Set for Keyboard Drawer

Rear-sided 19" mounting rails for 1U keyboard drawer Art.-No. 691649.1 and 691649.1TP
 Paint finish RAL7035, light grey / RAL9005, jet black
 Scope of delivery 2 x mounting rails, 4 x screw + nut, 8 x nut

Art.-No.	Description	Colour
691649.1B	Rear-Sided Mounting Set for Keyboard Drawer	RAL7035
691649TS.1B	Rear-Sided Mounting Set for Keyboard Drawer	RAL9005



19" 2U Keyboard Drawer, Lockable

19" 2U Keyboard drawer, telescopic pull-out
 Lockable, 2 keys included
 Suitable for all 19" network and server cabinets
 Usable width 410 mm, depth 320 mm, pull-out 180 mm
 Material steel sheet
 Paint finish RAL7035, light grey / RAL 9005 jet black
 Weight 6.1 kg
 Suitable keyboard Art.-No. 691680.1, please order separately

Art.-No.	Description	Colour
691649	19" 2U Keyboard Drawer, Lockable	RAL7035
691649TS	19" 2U Keyboard Drawer, Lockable	RAL9005



19" Document Drawers 1-3U, Lockable

Pull-out document drawer
 Lockable, 2 keys included in delivery
 Inner dimensions (W x D): ca. 388 x 278 mm
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	U	Colour
691646	19" Document Drawer, Lockable	1	RAL7035
691646.1	19" Document Drawer, Lockable	2	RAL7035
691646.2	19" Document Drawer, Lockable	3	RAL7035
691646TS	19" Document Drawer, Lockable	1	RAL9005
691646TS.1	19" Document Drawer, Lockable	2	RAL9005
691646TS.2	19" Document Drawer, Lockable	3	RAL9005

Circuit Diagram Bag DIN A4

Plastic circuit diagram bag
 For format DIN A4
 With adhesive tapes for fixing
 Dimensions: (W) x (H) x (D) 232 x 220 x 30 mm
 Colour similar RAL7035, light grey

Art.-No.	Description
699997	Diagram Bag DIN A4, Plastic

CABLE MANAGEMENT //



Cable Routing Panel & Brackets	P. 241
Cable Tidy Rails	P. 244
Dummy Plates	P. 245
Grounding/Earthing Accessories	P. 246
Cage Nuts & 19" Labeling System	P. 247

// YOU MIGHT ALSO BE INTERESTED IN:

Copper Patchcables	P. 130
19" Wall Housings	P. 220

 **ESPECIALLY RUGGED, BRACKETS TURNABLE**



Picture shows single bracket 75 mm



19" 1U Cable Routing Panel, 5 x Metal Bracket

For clear and orderly cable routing in the 19" level
Especially solid steel brackets, diameter 5 mm
Bracket turnable in steps of 90°
Bracket length 75 or 110 mm
Material bracket + panel steel, holder PA
Colour RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Bracket Length	Colour
699980.1	19" 1U Cable Routing Panel, 5 x Metal Bracket	75 mm	RAL7035
699980.2	19" 1U Cable Routing Panel, 5 x Metal Bracket	110 mm	RAL7035
699980TS.1	19" 1U Cable Routing Panel, 5 x Metal Bracket	75 mm	RAL9005
699980TS.2	19" 1U Cable Routing Panel, 5 x Metal Bracket	110 mm	RAL9005

 **ESPECIALLY RUGGED, BRACKETS TURNABLE**



Picture shows single bracket 110 mm



19" 1U Cable Routing Panel, 5 x Metal Double Brackets

For clear and orderly cable routing in the 19" level
Especially solid steel double brackets, diameter 5 mm
Bracket turnable in steps of 90°
Bracket length 75 or 110 mm
Material bracket + panel steel, holder PA
Colour RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Bracket Length	Colour
699981.1	19" 1U Cable Routing Panel, 5 x Metal Double Brackets	75 mm	RAL7035
699981.2	19" 1U Cable Routing Panel, 5 x Metal Double Brackets	110 mm	RAL7035
699981TS.1	19" 1U Cable Routing Panel, 5 x Metal Double Brackets	75 mm	RAL9005
699981TS.2	19" 1U Cable Routing Panel, 5 x Metal Double Brackets	110 mm	RAL9005

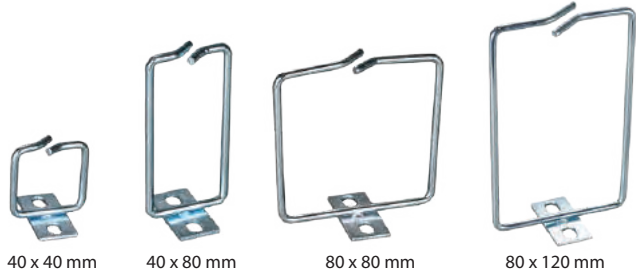


19" 1U Cable Routing Panel, 5 x Plastic Bracket

For clear and orderly cable routing in the 19" level
Especially rounded brackets for securing the bending radius of FO cables
Bracket turnable in steps of 90°
Bracket length 56 mm
Material panel steel, brackets plastic
Colour RAL7035, light grey / RAL9005, jet black



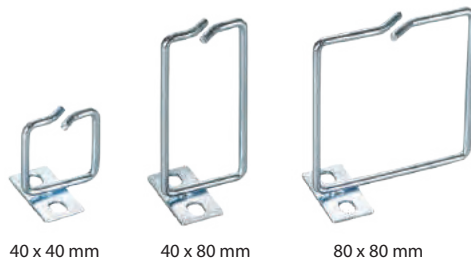
Art.-No.	Description	Bracket Length	Colour
699982.1	19" 1U Cable Routing Panel, 5 x Plastic Brackets	56 mm	RAL7035
699982TS.1	19" 1U Cable Routing Panel, 5 x Plastic Brackets	56 mm	RAL9005



Cable Routing Brackets

For orderly and clear cable routing
Mounting on the side of the 19" profile rails
Material steel, galvanised

Art.-No.	Description
699991.1	Cable Routing Bracket 40 x 40 mm
699991.2	Cable Routing Bracket 40 x 80 mm
699991.3	Cable Routing Bracket 80 x 80 mm
699991.4	Cable Routing Bracket 80 x 120 mm



Due to the offset mounting plate access to the ports is preserved

Cable Routing Brackets with Lateral Offset Mounting Plate

Cable routing bracket for mounting at the front side or laterally at the 19" level
Lateral offset mounting plate enables access to all ports of 19" devices (e.g. patch panel, switches, etc.)
Screw mounting in 1U or in the lateral openings of the 19" profile rails
Material steel, galvanised

Art.-No.	Description
699991.1S	Cable Routing Bracket 40 x 40 mm with Lateral Offset Mounting Plate
699991.2S	Cable Routing Bracket 40 x 80 mm with Lateral Offset Mounting Plate
699991.3S	Cable Routing Bracket 80 x 80 mm with Lateral Offset Mounting Plate



19" 1U Cable Routing Panel, 5 Brackets, Plastic

For orderly and clear cable routing in the 19" level
 Material plastic
 Colour RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Bracket Length	Colour
699992	19" 1U Cable Routing Panel, 5 Brackets, Plastic	70 mm	RAL7035
699992TS	19" 1U Cable Routing Panel, 5 Brackets, Plastic	70 mm	RAL9005



19" 1U Cable Routing Panel, 4 Brackets, Steel

For orderly and clear cable routing in the 19" level
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

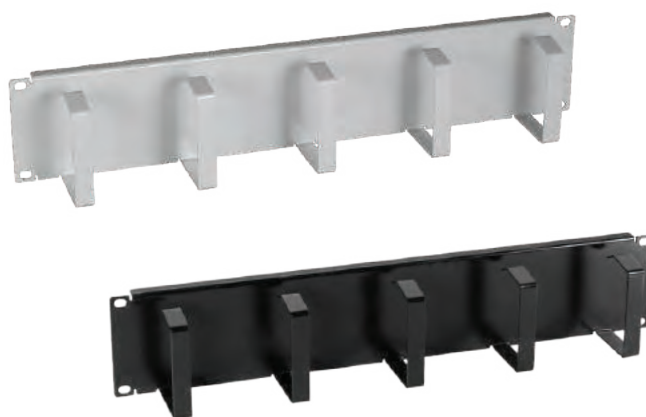
Art.-No.	Description	Bracket Length	Colour
699995	19" 1U Cable Routing Panel, 4 Brackets, Steel	60 mm	RAL7035
699995TS	19" 1U Cable Routing Panel, 4 Brackets, Steel	60 mm	RAL9005



19" 1U Cable Routing Panel, 5 Brackets, Steel

For orderly and clear cable routing in the 19" level
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

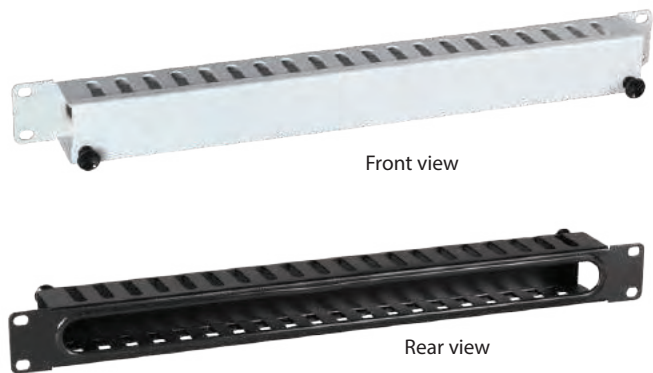
Art.-No.	Description	Bracket Length	Colour
699995.1	19" 1U Cable Routing Panel, 5 Brackets, Steel	60 mm	RAL7035
699995TS.1	19" 1U Cable Routing Panel, 5 Brackets, Steel	60 mm	RAL9005



19" 2U Cable Routing Panel, 5 Brackets, Steel

For orderly and clear cable routing in the 19" level
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Bracket Length	Colour
699998	19" 2U Cable Routing Panel, 5 Brackets, Steel	60 mm	RAL7035
699998TS	19" 2U Cable Routing Panel, 5 Brackets, Steel	60 mm	RAL9005



Front view

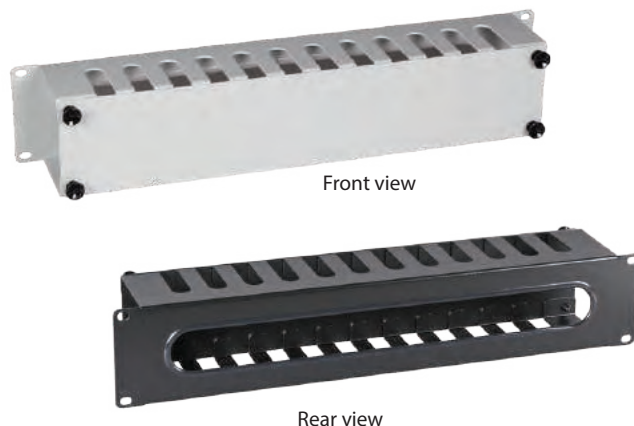
Rear view



19" 1U Cable Routing Panel with Cover, Steel

With front-sided cover with quick-fastener
 For orderly and clearly cable routing in the 19" level
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Bracket Length	Colour
699999.1	19" 1U Cable Routing Panel with Cover, Steel	50 mm	RAL7035
699999TS.1	19" 1U Cable Routing Panel with Cover, Steel	50 mm	RAL9005



Front view

Rear view



19" 2U Cable Routing Panel with Cover, Steel

With front-sided cover with quick-fastener
 For orderly and clearly cable routing in the 19" level
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Bracket Length	Colour
699999.2	19" 2U Cable Routing Panel with Cover, Steel	79 mm	RAL7035
699999TS.2	19" 2U Cable Routing Panel with Cover, Steel	79 mm	RAL9005



19" 1U Cable Feedtrough Panel with Brush

Cutout 440 x 25 mm
 Material steel sheet
 Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	Colour
699993V2	19" 1U Cable Feedtrough Panel with Brush	RAL7035
699993TSV2	19" 1U Cable Feedtrough Panel with Brush	RAL9005



19" 1U Cable Feedtrough Panel with Edge Protection, Steel

Cutout 440 x 25 mm
 Material steel sheet
 Paint finish, RAL7035 light grey / RAL9005, jet black

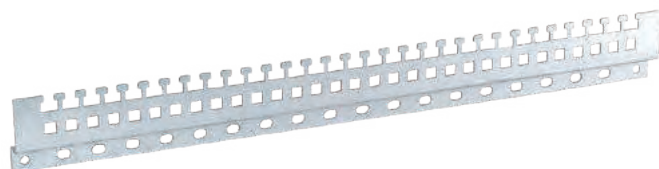
Art.-No.	Description	Colour
699993	19" 1U Cable Feedtrough Panel with Edge Protection, Steel	RAL7035
699993TS	19" 1U Cable Feedtrough Panel with Edge Protection, Steel	RAL9005



19" 1U Cable Tidy Rail

Cable tidy rail for mounting on the 19" profile in network and server cabinets
 For orderly installation and strain-relief of cables via cable ties
 Width 482.6 mm, Depth 60 mm
 Material steel, galvanised

Art.-No.	Description
691660	19" 1U Cable Tidy Rail



Cable Tidy Rail for Side Mounting

Cable tidy rails for side mounting on the 19" profile in network and server cabinets
 Organised installation and strain relief of cables via cable ties
 Material steel, galvanised

Art.-No.	Description	For Cabinet Depth
691670	Cable Tidy Rail for Side Mounting	600 mm
691665	Cable Tidy Rail for Side Mounting	800 mm
691661	Cable Tidy Rail for Side Mounting	1000 mm
691661.1	Cable Tidy Rail for Side Mounting	1200 mm



C-Profiles for 19" Mounting

Dimensions 483 x 30 x 15 mm
 With 2 x 19" mounting holes 6.5 x 12 mm
 Slot wide 16 mm
 Material steel, galvanised

Art.-No.	Description
691273.1	C-Profile for 19" Mounting



C-Profiles for Side-Mounting

C profile rail 30 x 15 mm with slot width 16 mm
 For side-mounting at the 19" profiles in EFB standing cabinets CLASSIC
 For use in PRO series a slightly adjustment of 19" profile depth is necessary
 Continuous 25 mm grid holes 11 x 7.3 mm
 Material steel, galvanised

Art.-No.	Description
691273.8V2	C Profile Rail for Side Mounting, Cabinet Depth 800 mm
691273.10V2	C Profile Rail for Side Mounting, Cabinet Depth 1000 mm
691273.12V2	C Profile Rail for Side Mounting, Cabinet Depth 1200 mm



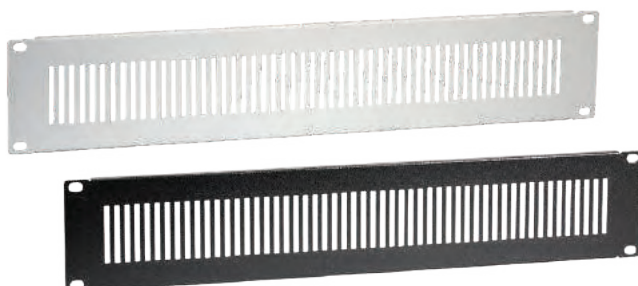
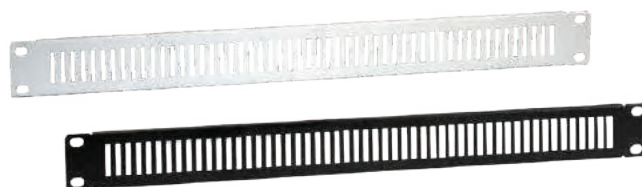
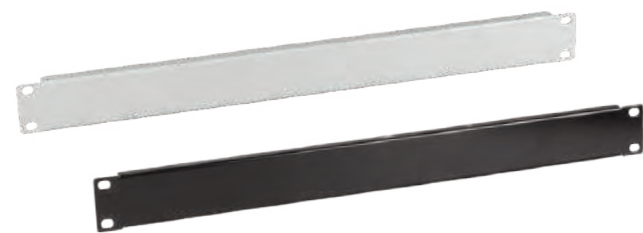
U-Clamps for C-Profile Rails, incl. Bottom Saddle

U-clamps for C-profile rails with slot width 16..17 mm
 Material steel sheet, galvanised
 Delivery incl. bottom saddle
 Other dimensions available on request

Art.-No.	Description
691275.3	U-Clamp incl. Bottom Saddle, for Cable Ø 16..22 mm
691275.5	U-Clamp incl. Bottom Saddle, for Cable Ø 28..34 mm
691275.7	U-Clamp incl. Bottom Saddle, for Cable Ø 38..42 mm



Application example



19" Dummy Plates

For covering open areas in the 19" level
High stability
Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	U	Colour
691265	19" Dummy Plates	1	RAL7035
691266	19" Dummy Plates	2	RAL7035
691267	19" Dummy Plates	3	RAL7035
691268	19" Dummy Plates	6	RAL7035
691269	19" Dummy Plates	9	RAL7035
691265TS	19" Dummy Plates	1	RAL9005
691266TS	19" Dummy Plates	2	RAL9005
691267TS	19" Dummy Plates	3	RAL9005
691268TS	19" Dummy Plates	6	RAL9005
691269TS	19" Dummy Plates	9	RAL9005



19" Dummy Plates, Perforated

For covering open areas in the 19" level
Perforation enables air flow
High stability
Paint finish RAL7035, light grey / RAL9005, jet black

Art.-No.	Description	U	Colour
691265PF.GR	19" Dummy Plates, Perforated	1	RAL7035
691266PF.GR	19" Dummy Plates, Perforated	2	RAL7035
691265PF.TS	19" Dummy Plates, Perforated	1	RAL9005
691266PF.TS	19" Dummy Plates, Perforated	2	RAL9005



Application example

19" 1U Dummy Plate Snap-In, Tool-Less, RAL9005

Very fast and easy snap-in mounting, screw-less
Easy to remove
Material plastic
Colour similar RAL9005, jet black

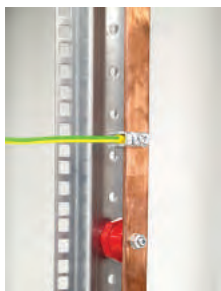
Art.-No.	Description	U	Colour
691271	19" 1U Dummy Plate Snap-In, Tool-Less, RAL9005	1	RAL9005



19" 10U Mounting Plate

For screw mounting of devices in area of the 19" level
Material steel sheet, galvanised, thickness 3 mm
Unperforated

Art.-No.	Description
693046.10	19" 10U Mounting Plate



Earthing Set for Cabinets 42U, Vertical

For vertical installation in 42U network cabinets Classic/PRO
 Mounting via supporting insulators on the sidely round holes of the 19" profiles (PRO: please use rear lateral raster holes)
 Mountable also in combination with vertically blind panels
 For mounting in server cabinets the installation of an additional 19" profile is recommended
 Scope of delivery: copper earthing bar 1800 x 15 x 5 mm, 12 x busbar terminal 1.5 .. 16 mm², 4 x supporting insulator, 8 x thread bolt M6 x 25, 8 x washer, 8 x nut M6, self-locking

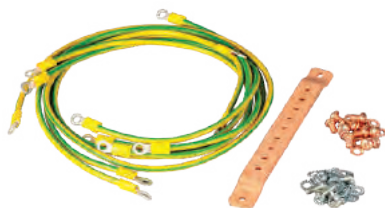


SUITABLE
 EARTHING CABLES
 YOU'LL FIND IN OUR
 ONLINE SHOP

Art.-No.	Description
K3930V42	Earthing Bar for Network Cabinets 42U, Vertical, incl. 12 x Busbar Clamp

Earthing Set for Cabinets, Small

For mounting in all network / server cabinets Classic/ISR and wall-mount cabinets
 Earthing kit consisting of:
 Earthing bar 9 connection points, 9 x screws with washer for connection points, 2 x M5 nuts, 6 x earthing cable H07V-K, 1 x 6 mm², gn/ye, with M5 ring cable lug on both sides
 Lengths: 2 x 390 mm, 2 x 580 mm, 1 x 670 mm, 1 x 800 mm
 Material: steel, copper plated
 All parts packed in polybag



Art.-No.	Description
K3930V2	Earthing Set for Cabinets, Small



Turning Handle, Complete, w/o Cylinder

Suitable for all front and rear doors (full height) of standing cabinets PRO and Classic
 Suitable for cutout 25-50-50-50
 For use with profile half-cylinders DIN 18252 / EN1303 (30/10 mm)
 Profile half-cylinder not included, please order separately
 Material plastic / metal

Art.-No.	Description
102179	Turning Handle, Complete, without Cylinder

Profile Half-Cylinder

Profile half-cylinder acc. to DIN 18252 / EN1303
 Suitable for EFB standard turning handles (Art.-No. 102179), compact turning handle (Art.-No. 699989) and telecom distributors TWL/TSL



Art.-No.	Description
46087.1	Profile Half-Cylinder T3/1333 with 2 Keys (for Classic)
46087.1P	Profile Half-Cylinder T3/1333 with 2 Keys (for PRO)
46087.2	Profile Half-Cylinder Locking T4 with 2 Keys, Alternative Locking
46087.3	Profile Half-Cylinder for Locking 3524E with 1 Key
46087.4	Profile Half-Cylinder with Push-Button
46086.1	Profile Half-Cylinder Locking 15, with 1 Key Q15



Compact Turning Handle for Profile Half Cylinder

Enables the use of an individual profile half-cylinder in doors of wall cabinets 1-part/2-part and Flat Pack
 Suitable for use with profile half-cylinder acc. to DIN 18252 / EN1303 (e.g. Art.-No. 46087.x)
 Easiest mounting, included latch limits the rotation angle to 90°
 Delivery without profile half-cylinder

Art.-No.	Description
699989	Compact Turning Handle for PHC, incl. Latch

Spare Keys for Standard Cabinet/Wall Housing

2 spare keys for standing and wall cabinets



Art.-No.	Description
102115	Spare keys for Network and Server Cabinets, Wall Housings (T3/1333), 2 Pieces
102115.2	Spare Keys for Wall Housings IP55 and 3+5U, 2 Pieces
102115.4	Spare Key for Standing Cabinets IP55, 2 Pieces



Application example

Labeling System for 19"/1U

Installation in 19" server, network cabinets
 For labeling devices like patch panels, switches etc.
 Transparent window in the cover, easy installation via included screws
 Mountable at left and right side
 Without screws max. expandable to 4U
 Colour RAL7035, light grey
 Dimensions (W x H x D) 42 x 44 x 10 mm

Art.-No.	Description	Colour
37680.1	Labeling System for 19" 1U, Grey	RAL7035
37681.1	Labeling Sheet, 1 Sheet = 40 Labels	



Set of Captive Nuts

Consisting of
 20/50 x captive nuts M6
 20/50 x washer M6 plastic
 20/50 x screw M6 x 20 mm PH3

Art.-No.	Description
691099	Set of Captive Nuts 20 x M6, Complete
691100	Set of Captive Nuts 50 x M6, Complete



Set of Captive Nuts for Front Mounting

For front-sided mounting into the 19" profile
Easy and fast - no more wounded fingers!
 Set of 50 x screw M6 x 20 mm, washer and cage nut
 Material steel, nylon

Art.-No.	Description
691102	Set of Captive Nuts 50 x M6 for Front Mounting (50 x Nut., Screw, Washer)



Set of Captive Nuts, 50 x M6 Torx for Front Mounting

For front-sided mounting into the 19" profile
Easy and fast - no more wounded fingers!
 Set of 50 x screw M6 x 20 mm T30, washer and cage nut
 Material steel, nylon

Art.-No.	Description
691104	Set of Captive Nuts, 50 x M6 Torx for Front Mounting (50 x Nut., Screw, Washer)



Set of Captive Nuts, 50 x M5 for Front Mounting

For front-sided mounting into the 19" profile
Easy and fast - no more wounded fingers!
 Set of 50 x screw M5 x 20 mm PH2, washer and cage nut
 Material steel, nylon

Art.-No.	Description
691103	Set of Captive Nuts 50 x M5 for Front Mounting (50 x Nut., Screw, Washer)



The cage nuts are inserted from the front into the 19" grid perforation and fixed by a rotation of 45°.

The annoying **reaching behind the 19" profiles** as well as the **risk of injury** when handling sharp-edged spring steel cages **are fully eliminated.**



POWER SUPPLY

// FROM THE DESK TO THE DATA CENTRE

POWER CABLES

// P. 260

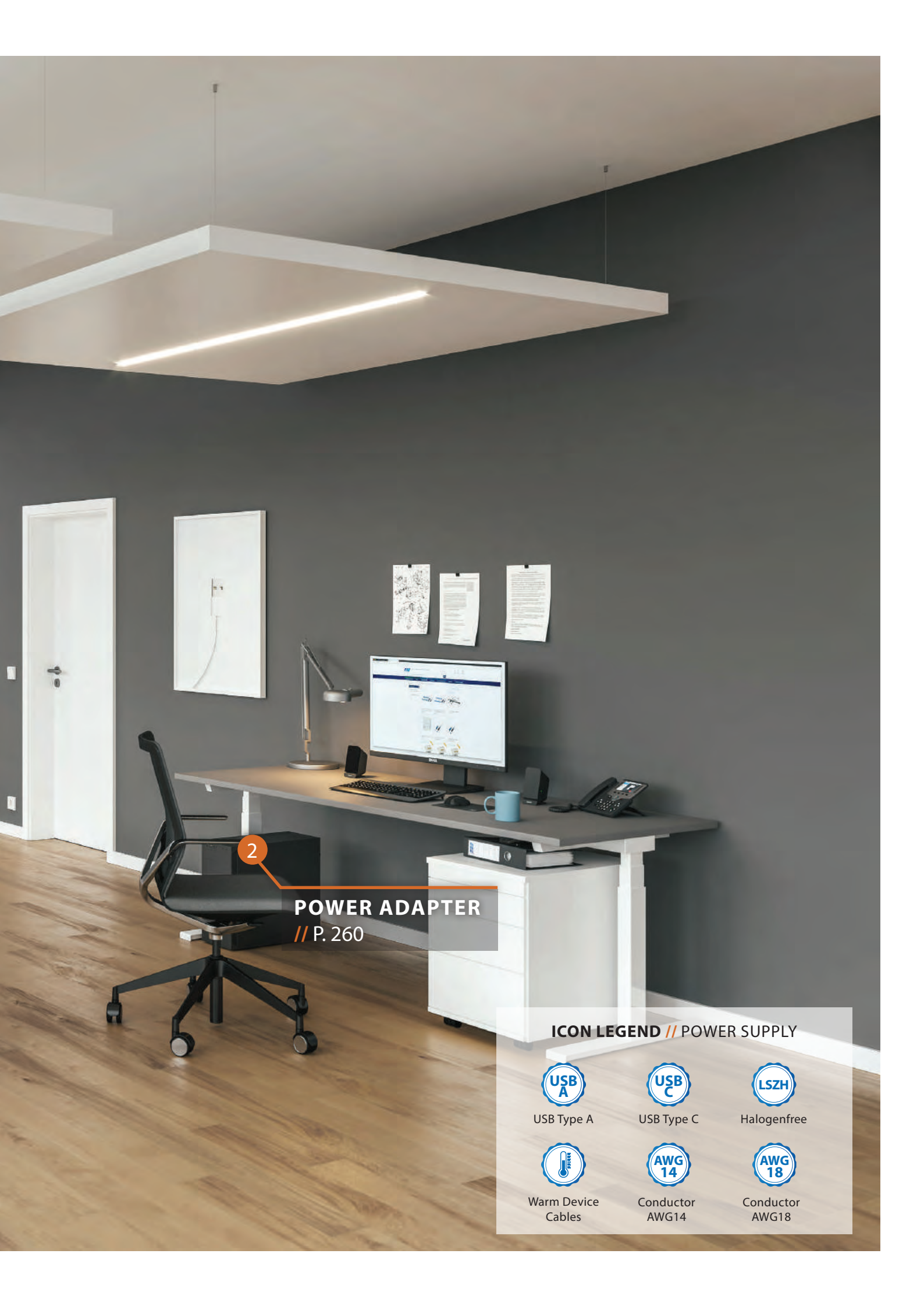
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1

SOCKET STRIPS

// P. 250





2

POWER ADAPTER

// P. 260

ICON LEGEND // POWER SUPPLY



USB Type A



USB Type C



Halogenfree



Warm Device
Cables

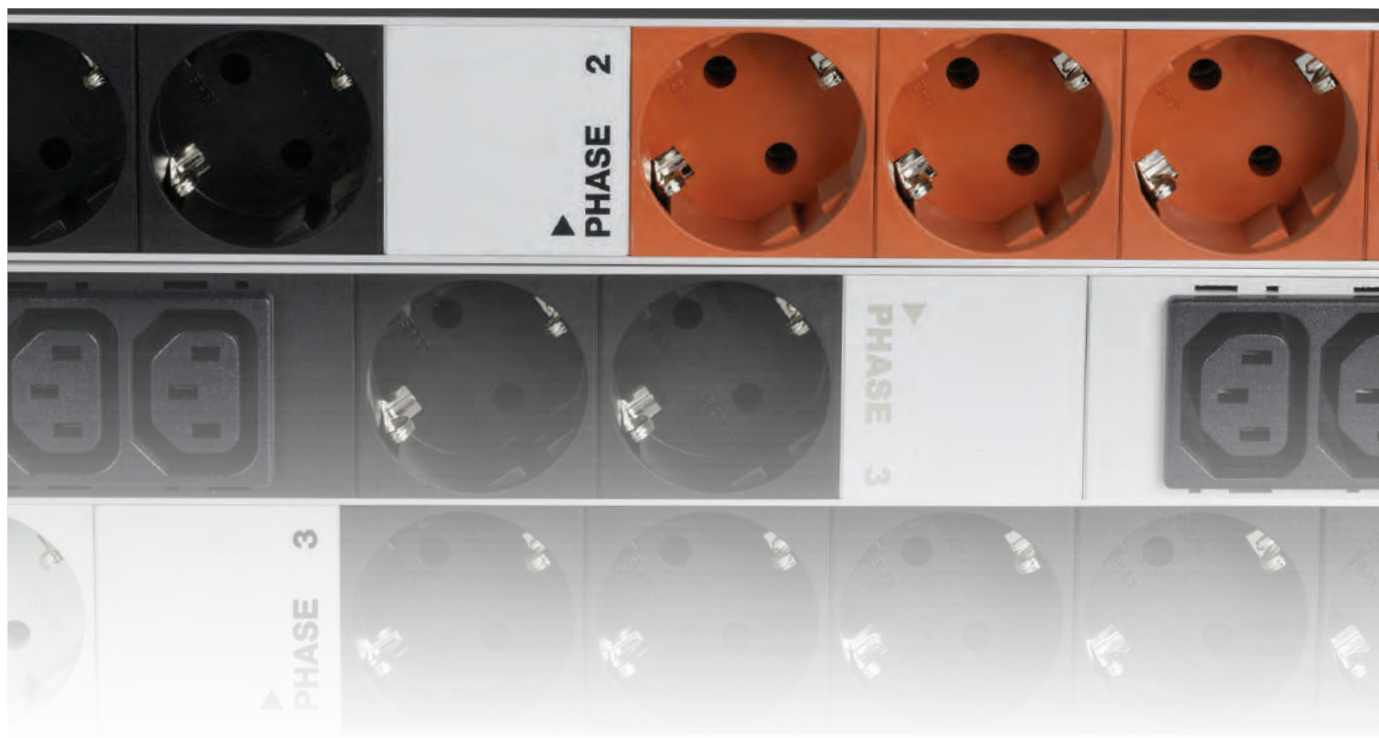


Conductor
AWG14



Conductor
AWG18

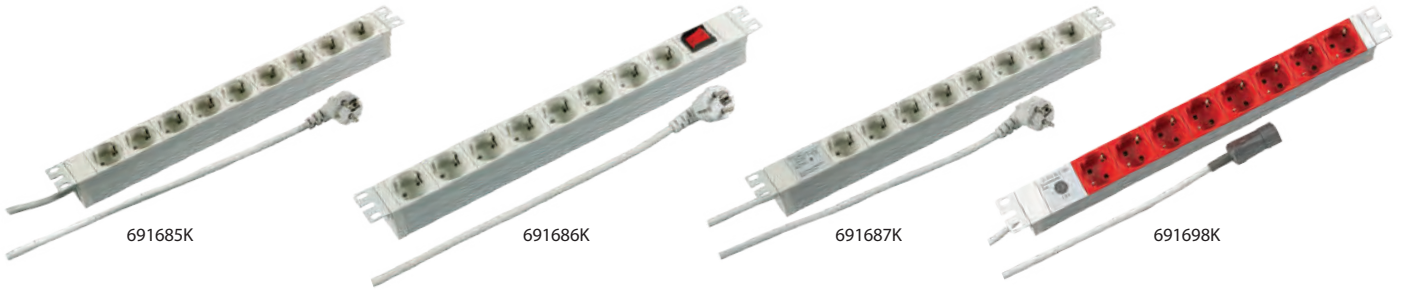
SOCKET STRIPS //



19" Socket Strips	P. 251
10" Socket Strips	P. 254
Standard Socket Strips	P. 255
DIN-Rail Outlets	P. 256
Intelligent Power Distribution Unit	P. 257
Power Cables & Extensions	P. 260
International Power Cables	P. 266
Power Adapters	P. 269

// YOU MIGHT ALSO BE INTERESTED IN:

19" Network Cabinets	P. 184
Active Devices (e.g. Switches)	P. 312



Kopp

19" 1U Socket Strips Kopp

Socket strip PROFiversal with 45° turned socket inserts in aluminium profile
 Cable 2.0 m grey, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Included metal brackets allow any fastening position

Art.-No.	Description	Colour	No. Of Sockets With Protective Contact
691685K	19" 1U Socket Strip 9 x CEE 7/3 without Switch	Grey	9
691686K	19" 1U Socket Strip 8 x CEE 7/3 with Switch	Grey	8
691687K	19" 1U Socket Strip 8 x CEE 7/3 with Surge Protection	Grey	8
691689K	19" 1U Socket Strip 6 x CEE 7/3 with Full Device Protection	Grey	6
691698K	19" Socket Strip 8 x CEE 7/3 Red, Cable C14	Red	8



BACHMANN

19" 1U Socket Strips Bachmann

35° turned socket inserts in the aluminium profile
 Cable H05VV-F 3G 1.5 mm², black, 2.0 m with angled CEE7/7 plug
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour	No. Of Sockets With Protective Contact
691685	19" 1U Socket Strip 9 x CEE7/3 without Switch	Grey	9
691686	19" 1U Socket Strip 8 x CEE7/3 with Switch	Grey	8
691687	19" 1U Socket Strip 8 x CEE7/3 with Surge Protection	Grey	8
691688	19" 1U Socket Strip 7 x CEE7/3 with Surge Protection and Switch	Grey	7
691689	19" 1U Socket Strip 6 x CEE7/3 with Surge Protection + Mains Filter	Grey	6
691698	19" 1U Socket Strip 8 x CEE7/3 (red) with Cable IEC C14	Red	8



BACHMANN

19" 1U Socket Strips Bachmann

35° turned socket inserts in the aluminium profile
 Cable H05VV-F 3G 1.5 mm², black, 2.0 m, with angled CEE7/7 plug
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour	No. Of Sockets With Protective Contact
691683	19" 1U Socket Strip 9 x CEE7/3 without Switch	Black	9
691684	19" 1U Socket Strip 8 x CEE7/3 with Switch	Black	8
691689SW	19" 1U Socket Strip 6 x CEE7/3 with Surge Protection + Mains Filter	Black	6



19" 1U Socket Strips Protective Contact

19" 1U socket strip in aluminium profile
 Outlets 9/8/7 x CEE 7/3, turned 45°, with increased personal protection against electric shocks
 Cable 2 m H03VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Colour outlets black, housing aluminium black
 Certifications CE, RoHS

SOON ALSO
 IN GREY
 AVAILABLE

Art.-No.	Description	Colour	No. Of Sockets With Protective Contact
EK631DE.1	19" 1U Socket Strip 9 x CEE 7/3 without Switch	Black	9
EK631DE.2	19" 1U Socket Strip 8 x CEE 7/3 with Switch	Black	8
EK631DE.3	19" 1U Socket Strip 7 x CEE 7/3 with Surge Protection	Black	7

NEW!



19" 1U/2U Socket Strips 16/32 x USB with Switch

19" 2U socket strip in aluminium profile
 Outlets 32 x USB-A e.g. for charging of mobile devices in tablet holders and cabinets
 Charging voltage 5 V, charging current max. 2100 mA per 2 ports
 With highlighted on/off switch
 Cable 3 m H03VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Colour black
 Certifications CE, RoHS

Art.-No.	Description
EK631USB.1	19" 1U Socket Strip 16 x USB with Switch
EK631USB.2	19" 2U Socket Strip 32 x USB with Switch

NEW!



19" 1.5U Socket Strip 18 x USB with Switch

19" 1.5U socket strip in aluminium profile
 Outlets 18 x USB (9 x USB-A + 9 x USB-C) e.g. for charging of mobile devices in tablet holders and cabinets
 Charging voltage 5 V, charging current max. 3200 mA per 2 ports (1 x USB-A + 1 x USB-C)
 With highlighted on/off switch
 Cable 3 m H03VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Colour black
 Certifications CE, RoHS

Art.-No.	Description
EK631USB.1,5	19" 1.5U Socket Strip 18 x USB with Switch



19" 1U Socket Strips France

19" 1U socket strip in aluminium profile
 Outlets 9/8 x France (UTE), with increased contact protection
 Cable 1.8 m H03VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Colour outlets black, housing aluminium black
 Certifications CE, RoHS

Art.-No.	Description
EK631FR.1	19" 1U Socket Strip 9 x UTE without Switch
EK631FR.2	19" 1U Socket Strip 8 x UTE with Switch



19" 1U Socket Strips Italy

19" 1U socket strip in aluminium profile
 Outlets 9/8 x Italy-Universal, with increased contact protection
 Cable 1.8 m H03VV-F 3G 1.5 mm² with Italy plug (type L)
 Colour outlets black, housing aluminium black
 Certifications CE, RoHS

Art.-No.	Description
EK631IT.1	19" 1U Socket Strip 9 x IT without Switch
EK631IT.2	19" 1U Socket Strip 8 x IT with Switch



19" 1U Socket Strip 12 x C13

19" 1U socket strip in aluminium profile
 Outlets 12 x IEC C13
 With overload protection 10 A
 With increased personal protection against electric shocks
 Cable 1.8 m black, H03VV-F 3G 1.5 mm² with plug IEC C14
 Colour outlets black, housing aluminium black
 Certifications CE, RoHS

Art.-No.	Description
EK631CC.1	19" 1U Socket Strip 12 x C13 without Switch, Cable C14



19" 1U Socket Strip 12 x C13

12 x IEC60320/C13 sockets black, in aluminium profile
 Cable 2 m black, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Supplied mounting brackets allow any fastening position

Art.-No.	Description
691698.3	19" 1U Socket Strip 12 x C13 without Switch



19" 1U Socket Strip 8 x IEC C13

8 x IEC60320/C13 socket black, in aluminium profile
 Integrated 10 A microfuse
 Cable 2 m black, H05VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691697	19" 1U Socket Strip 8 x IEC C13	Grey



19" 1U Socket Strip 6 x C19, 3-Phase

Aluminium profile height 44 mm, depth 47 mm, width ca. 438 mm
 Outlets 6 x IEC C19 lockable (IEC Lock) (2 x C19 per phase)
 3-phase feeding with colour marking (red/black/grey)
 Cable 3 m black, H05VV-F 5G 2.5 mm² with CEE 16 A plug 5-pole red
 Supplied 19" mounting brackets allow any fastening position

Art.-No.	Description	Colour
691780	19" 1U Socket Strip 6 x C19, 3-Phase, Plug CEE 16 A Red	Grey



19" 1.2U Socket Strips 6/7 x Protective Contact with Surge Protection, PVC

Surge protection leakage current 6.5 kA
 Optical function indication
 35° turned socket inserts in plastic profile
 Cable 2 m white, H05VV-F 3G 1.5 mm², with angled CEE7/7 plug
 Height 54 mm (1.2U)
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691693	19" 1.2U Socket Strip 7 x CEE7/3 with Surge Protection, PVC	Grey
691694	19" 1.2U Socket Strip 6 x CEE7/3 with Surge Protection and Switch, PVC	Grey



19" 1.2U Socket Strips 7/8 x Protective Contact, PVC

35° turned socket inserts in plastic profile
 Cable 2 m white, H05VV-F 3G 1.5 mm², with angled CEE7/7 plug
 Height 54 mm (1.2U)
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	Colour
691695	19" 1.2U Socket Strip 8 x CEE7/3 without Switch	Grey
691696	19" 1.2U Socket Strip 7 x CEE7/3 with Switch	Grey



Kopp

10" 1U Socket Strip 4 x CEE7/3 without Switch

Socket strip PROFiversal 4-way
 45° turned socket inserts in aluminium profile
 Cable 2.0 m grey, H05VV-F 3G 1.5 mm², 250 V AC / 16 A with angled CEE7/7 plug, rewirable
 Included metal brackets allow any fastening position
 VDE certified

Art.-No.	Description	Colour	No. Of Sockets With Protective Contact
ESP.72K	10" 1U Socket Strip 4 x CEE7/3, without Switch	Grey	4



**BACH
MANN**

10" Socket Strips Bachmann

35° turned outlets in aluminium profile
 Cable 2.0 m black, H05VV-F 3 x 1.50 mm² with angled CEE7/7 plug
 Included metal brackets allow any fastening position
 VDE certified

Art.-No.	Description	Colour	No. Of Sockets With Protective Contact
ESP.70	10" 1U Socket Strip 3 x CEE7/3, without Switch	Grey	3
ESP.72	10" 1U Socket Strip 4 x CEE7/3, without Switch	Grey	4



EFB
ELEKTRONIK

10" 1U Socket Strip 4 x CEE 7/3 without Switch

Outlets turned 45° in Aluminium profile
 With increased personal protection against electric shock
 Cable 2 m black, H03VV-F 3G 1.5 mm² with angled CEE7/7 plug
 Certifications CE, RoHS

Art.-No.	Description	Colour	No. Of Sockets With Protective Contact
EK631DE.10	10" 1U Socket Strip 4 x CEE 7/3, without Switch	Black	4
EK631DE.11	10" 1U Socket Strip 4 x CEE 7/3, with Switch	Black	4



Socket Strip 6 x Protective Contact with Surge Protection, 2 x USB, 2 x RJ45, 2 x RJ11 and Switch

With increased protection against electric shocks, GS tested
 Surge protection for power supply, network and phone
 2 x USB charging 5 V / 1000 mA max. total
 Lighting ON/OFF switch
 Wall mounting possible
 45° turned outlets
 Connections: 6 x CEE7/3, 2 x RJ45 UTP, 2 x RJ11, 2 x USB A

Cable ca. 1.5 m H05VV-F 3G 1.00 mm², 250 V AC / 16 A with angled CEE7/7 plug

Art.-No.	Description	Colour
EKG10	Socket Strip 6 x with Surge Protection, 2 x USB, 2 x RJ45, 2 x RJ11 and Switch	Cream white/electro white



Socket Strips 6 x Protective Contact

With increased protection against electric shocks
 45° turned socket inserts
 Cable 1.4 m white, H05VV-F3 1.50 mm², 250 V AC / 16 A with angled plug CEE7/7
 Material plastic, white

Art.-No.	Description	Colour
ESP2.1K	Socket Strips 6 x Protective Contact with Switch	White
ESP3.1K	Socket Strips 6 x Protective Contact	White



Socket Strips 3 x Protective Contact

With increased protection against electric shocks
 45° turned socket inserts
 Cable 1.4 m white, H05VV-F3 1.50 mm², 250 V AC / 16 A with angled plug CEE7/7
 Material plastic, white

Art.-No.	Description	Colour
ESP25.1K	Socket Strip 3 x Protective Contact with Switch	White
ESP30.1K	Socket Strip 3 x Protective Contact	White



Socket Strip 6 x Protective Contact With Surge Protection, Mains Filter And Switch

Fully appliance protection, consisting of overvoltage protection (nominal leakage current 6.5 kA), 2 x thermal fuse, frequency and mains filter
 Optical function indication
 35° turned socket inserts
 Integrated cable winder, illuminated ON/OFF switch
 Cable 2.0 m black, H05VV-F 3G 1.5 mm², 250 V AC / 16 A with angled plug CEE7/3

Art.-No.	Description	Colour
ESP41	Socket Strip 6 x with Surge Protection, Mains Filter and Switch	Black

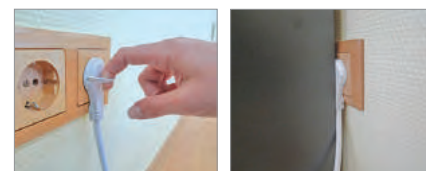


Socket Strip 6 x Protective Contact With Surge Protection And Switch

With increased protection against electrical shocks
 35° turned socket inserts
 Surge protection leakage current 6.5 kA
 Cable 1.5 m white, H05VV-F3 1.50 mm², 250 V AC / 16 A with angled CEE7/3 plug

Art.-No.	Description	Colour
ESP29	Socket Strip 6 x with Surge Protection and Switch	White

NEW!



EK646xx.3F: Variant with flat plug for especially tight places

Kopp

Socket Strips DUOversal® plus

All socket outlets with connection option for one 1 x protective contact or 2 x Euro plug: Doubling of the devices to be connected in comparison to a conventional strip
 Easy placement of angled plugs, power supplies, timers etc. due to 52 mm outlet spacing
 Outlets turned 35°, With increased personal protection against electric shocks
 With 2-pole, highlighted switch
 Cable 1.4 m H05VV-F 3G 1.5 mm², 250 V / 16 A
 Material plastic/ABS, halogenfree, PVC free

FURTHER VARIANTS with surge protection, USB charging function and other lead lengths AVAILABLE ON REQUEST.

Further variants with surge protection, USB charging and other cable lengths available on request.

Art.-No.	Description	Colour	No. Of Sockets With Protective Contact	Number Of Euro Socket Outlets
EK646WS.3	DUOversal® plus 3=6, with Switch	White	3	6
EK646SW.3	DUOversal® plus 3=6, with Switch	Black	3	6
EK646WS.3F	DUOversal® plus 3=6, with Switch, Flat Plug	White	3	6
EK646SW.3F	DUOversal® plus 3=6, with Switch, Flat Plug	Black	3	6
EK646WS.6	DUOversal® plus 6=12, with Switch	White	6	12
EK646SW.6	DUOversal® plus 6=12, with Switch	Black	6	12

USER-FRIENDLY:
All three connections located on the lower side



Socket Outlets 1-Way for DIN-Rail

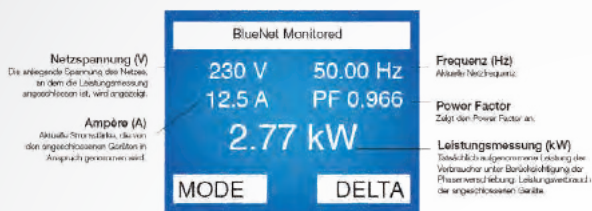
Outlet with protective contact for mounting at DIN-rail TS35 („Hat Rail“)
 Rated voltage/ current 250 V / 16 A
 Wire max. 10 mm²
 Colour grey (red,yelooow ertc. on request)

Art.-No.	Description	Colour
EK633.1	Socket Outlet 1-Way for DIN-Rail	Grey
EK633.2	Socket Outlet 1-Way for DIN-Rail, with Cover	Grey
EK633.3	Socket Outlet 1-Way for DIN-Rail, France (UTE)	Grey



INTELLIGENT POWER DISTRIBUTION UNITS

BlueNet



BlueNet – smart Solutions

BlueNet offers a complete solution for structuring, controlling and monitoring IT power grids.

PDUs from the BlueNet series capture consumption and output data, and provide the user with relevant data and control options for modern energy management.

The BN3000 – BN7500 generation of our BlueNet products is synonymous with state-of-the-art technology – whether in the form of power distribution units (PDUs) that can be cascaded via Modbus, integrated, universal-currentsensitive residual current monitoring, command line tools or the rotating OLED display. And there's more: our features represent safety and efficiency, and they can be integrated into DCIM systems. From a single workplace, you can monitor and control your data centre's complex power grid locally or remotely.

Residual Current Monitoring (RCM)

Using type B residual current monitoring (RCM) allows changes in the level of insulation of your power supply to be detected promptly, before protective devices are tripped by a residual current that puts people at risk and involves the risk of fire, which would lead to the failure of critical IT infrastructure. This time advantage allows countermeasures to be planned and contributes to the high availability of the power supply and, therefore, the data centre.

Thanks to our BlueNet PDU, this residual current monitoring is not just undertaken at central measuring points in the main distribution or subdistribution, but granulated at rack level in every PDU and even for every phase. In the event of escalation, this will help to locate the sources of errors faster and rectify them efficiently.

The residual current sensor conforms to EN 62020 and provides a high physical granularity, maximum safety and high availability. This AC/DCsensitive technology (type B) monitors all kinds of residual current and enables the user to differentiate between alternating (AC) and direct (DC) residual currents. Leakage currents, which are physically required, can therefore be distinguished from real residual currents. Both measured values (AC and DC) are evaluated separately via BlueNet software and made available to the monitoring system or the building control system. This kind of residual current monitoring (type B RCM) is therefore particularly suited to use in IT.

BlueNet overview



	PDUs for metering tasks		PDUs for metering tasks		PDUs for switching and metering tasks	
	BN0500	BN2000	BN3000	BN3500	BN7000	BN7500
Single protection	(*)	(*)	(*)	(*)	(*)	(*)
Measurement per phase	*	*	*	*	*	*
BlueNet	*	*	*	*	*	*
Sensors	*	*	*	*	*	*
Modbus RTU/TCP	*	*	*	*	*	*
Type B RCM	*	*	(*)	(*)	(*)	(*)
Switching	*	*	*	*	*	*
Measurement per port	*	*	*	*	*	*
Powerline Communication		(*)				

Other features of the BN0500:	Other features of the BN2000:	Other features of the BN3000 – BN7500:
Measurement: Current, voltage, phase angle, frequency, effective power, energy meter, measuring accuracy (%) Display: LCD Operation: Local	Measurement: Current, voltage, phase angle, frequency, effective power, reactive power, apparent power, energy meter, power factor, neutral conductor monitoring, measuring accuracy (%) TFT display can be rotated using software Display: Web browser, local Operation: 2 sockets for external sensors Connections: RS485, HTTP, DHCP, SNMPv2, SNMP Trap, Syslog, RTP	Measurement: Current, voltage, frequency, effective power, reactive power, apparent power, energy meter, power factor, neutral conductor monitoring, measuring accuracy (%) OLED display can be rotated using software Display: Web browser, local Operation: USB, 2 sockets for external sensors, floating digital input, floating relay output Connections: IP4, IP6, Modbus TCP, HTTP, HTTPS, SSH, DHCP, SNMPv2, SNMPv3, SNMP Trap, Syslog, RTP, LDAPS, USB



Sample picture 691787



FURTHER VARIANTS ON REQUEST AND AT: www.efb-elektronik.de/en

Socket Strips Vertical

Vertical 0U socket strip in aluminium profile
 Outlets protective contact and/or C13 / C19
 Cable 3.0 m black
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	No. Of Protective Contact Outlets	No. Of Cold Device Outlets	Feeding
691781	Socket Strip Vertical, 24 x C13 + 3 x C19, 1-Phase, Plug CEE 16 A		27	1-Phase, CEE 16 A blue
691782	Socket Strip Vertically 20 x C13, 2 x CB C 16 A, Plug CEE 32 A Blue		20	1-Phase, CEE 32 A blue
691783	Socket Strip Vertical, 12 x C13 + 6 x CEE7/3, 3-Phase, CEE 16 A red	6	12	3-Phase, CEE 16 A red
691784	Socket Strip Vertical 15 x CEE7/3, 3-Phase, Plug CEE 16 A red	15		3-Phase, CEE 16 A red
691785	Socket Strip Vertical 18 x C13, 3-Phase, Plug CEE 16 A red		18	3-Phase, CEE 16 A red
691786	Socket Strip Vertical, 24 x C13 + 3 x C19, 3-Phase, Plug CEE 16 A red		27	3-Phase, CEE 16 A red
691787	Socket Strip Vertical, 36 x C13 + 12 x CEE7/3, 6-Phase, Wire End Sleeves	12	36	2x 3-Phase, Wire End Sleeves



Beispielabbildung 691790.18



FURTHER VARIANTS ON REQUEST AND AT: www.efb-elektronik.de/en

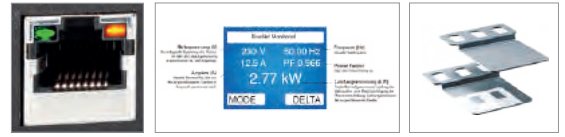
Socket Strips BlueNET500 with Power Measuring (Display)

Socket strip BlueNET500 with integrated power measuring per phase
 Cable 3.0 m black
 Supplied mounting brackets allow any fastening position

Art.-No.	Description	No. Of Protective Contact Outlets	Number Of C13 Outlets	Number Of C19 Outlets	Feeding
691790.1	PDU 19" 1U BN500 8 x CEE7/3	8			1-Phase, CEE7/7
691790.2	PDU 19" 1U BN500 12 x C13		12		1-Phase, CEE7/7
691790.5	PDU Vertical BN500 24xC13 3xC19		24	3	3-Phase, CEE 16 A red
691790.6	PDU Vertical BN500 24xC13 4xC19		24	4	1-Phase, CEE 16 A blue
691790.10	PDU Vertical BN500 24xC13 6xC19		24	6	3-Phase, CEE 16 A red
691790.11	PDU Vertical BN500 24xC13 6xCEE7/3	6	24		3-Phase, CEE 16 A red
691790.12	PDU Vertical BN500 24xC13 6xC19 6xCEE7/3	6	24	6	3-Phase, CEE 16 A red
691790.13	PDU Vertikal BN500 36xC13 6xC19		36	6	3-Phase, CEE 16 A red
691790.17	PDU Vertical BN500 24xC13 4xC19		24	4	1-Phase, CEE 32 A blue
691790.18	PDU Vertical BN500 24xC13 6xC19		24	6	3-Phase, CEE 32 A red



Sample picture 691791.8



Socket Strips BlueNET2000 Monitored (Display + Network)

Intelligent PDU BlueNET2000 Monitored in aluminium profile
 Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor
 cable 3.0 m black
 Delivery incl. mounting brackets and screws

FURTHER VARIANTS ON REQUEST AND AT: www.efb-elektronik.de/en

Art.-No.	Description	No. Of Prot. Contact Outlets	No. Of C13 Outlets	No. Of C19 Outlets	Feeding
691791.1	19" 1U PDU BN2000 Monitored 6 x CEE7/3	6			1-Phase, CEE7/7
691791.2	19" 1U PDU BN2000 Monitored 8 x C13		8		1-Phase, CEE7/7
691791.3	PDU Vertical BN2000 Monitored 36 x C13 + 6 x CEE7/3	6	36		3-Phase, CEE 16 A red
691791.4	PDU Vertical BN2000 Monitored 36 x C13 + 6 x C19		36	6	3-Phase, CEE 16 A red
691791.5	PDU Vertical BN2000 Monitored 24 x C13 + 4 x C19 + 2 x CB 16 A		24	4	1-Phase, CEE 32 A blue
691791.6	PDU Vertical BN2000 Monitored 24 x C13 + 3 x C19		24	3	1-Phase, CEE 16 A blue
691791.7	PDU Vertical BN2000 Monitored 24 x C13 + 6 x C19 + 6 x CB		24	6	3-Phase, CEE 16 A red
691791.8	PDU Vertical BN2000 Monitored 24 x C13 + 6 x C19		24	6	3-Phase, CEE 16 A red



Sample picture BlueNET3000 PDU



Socket Strips BlueNET3000 Monitored with Residual Current Measuring (RCM)

Intelligent PDU BlueNET3000 RCM Monitored in aluminium profile
 Residual current monitoring per phase/cable
 Integrated function for measuring of current, voltage, reactive-, apparent-, active power, frequency and power factor
 With integrated display, integrated webserver with 10/100 Mbit/s Ethernet (RJ45)
 Cable 3.0 m black
 Delivery incl. mounting brackets and screws

FURTHER VARIANTS ON REQUEST AND AT: www.efb-elektronik.de/en

Art.-No.	Description	No. Of Prot. Contact Outlets	Number Of C13	Number Of C19	Feeding
691795.1	PDU Vertical BN3000 RCM Monitored 18 x C13 + 3 x C19 + 1 x RCM		12	3	3-Phase, CEE 16 A red
691795.2	PDU Vertical BN3000 RCM Monitored 12 x C13 + 6 x C19 + 1 x RCM		12	6	3-Phase, CEE 16 A red
691795.3	PDU Vertical BN3000 RCM Monitored 12 x C13 + 6 x C19 + 3 x CEE7/3 + 1 x RCM	3	12	6	3-Phase, Wire End Sleeves
691795.4	PDU Vertical BN3000 RCM Monitored 24 x CEE7/3 + 1 x RCM	24			3-Phase, Wire End Sleeves

POWER CABLES & POWER ADAPTER //



Power Cables Protective Contact	P. 261
Power Cables IEC-Lock	P. 263
Cold & Warm Device Extensions & Euro	P. 264
International Power Cables	P. 266
Power Adapters	P. 269

// YOU MIGHT ALSO BE INTERESTED IN:

19" Network Cabinets	P. 184
Wall housings	P. 220

ALSO AVAILABLE IN 3 METRES



Power Cables CEE7/7 90° - C13 180°, Coloured

Coloured power cords for clearly assignment of device - cable - outlet and signal colour, oo time-intensive search or tracing of cables
Cable H05VV-F 3G 0.75 mm²
10 A / 250 V VDE tested

Art.-No.	Conductor Ø	Colour	Length
EKS88BL.1,8	0.75 mm ²	Blue	1.8 m
EKS88GE.1,8	0.75 mm ²	Yellow	1.8 m
EKS88GN.1,8	0.75 mm ²	Green	1.8 m
EKS88OR.1,8	0.75 mm ²	Orange	1.8 m
EKS88RT.1,8	0.75 mm ²	Red	1.8 m
EKS88WS.1,8	0.75 mm ²	White	1.8 m



Power Cable CEE7/7 90°-C13 180°

10 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EKS04.0,5V2	0.75 mm ²	Black	0.5 m
EKS04.1V2	0.75 mm ²	Black	1.0 m
EKS04.2V2	0.75 mm ²	Black	2.0 m
EKS04.3V2	1.00 mm ²	Black	3.0 m
EKS04.5V2	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - C13 180°, LSZH

Power Cable CEE7/7 90° to jack IEC60320/C13
Halogen free
Cable H05Z1Z1-F 3 x 1.00 mm²
10 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EKS04ZH.1,8	1.00 mm ²	Black	1.8 m
EKS04ZH.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - C13 180°

10 A / 250 V VDE tested
Colour grey
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EKS01.2V2	0.75 mm ²	Grey	2.0 m
EKS01.2,5V2	1.00 mm ²	Grey	2.5 m
EKS01.3V2	1.00 mm ²	Grey	3 m
EKS01.5V2	1.00 mm ²	Grey	5.0 m



Power Cable CEE7/7 180° - C13 180°

10 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EKS08SW.2	0.75 mm ²	Black	2.0 m
EKS08SW.3	1.00 mm ²	Black	3.0 m
EKS08SW.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 180° - C13 180°

10 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EKS08.2	0.75 mm ²	grey	2.0 m
EKS08.3	1.00 mm ²	grey	3.0 m
EKS08.5	1.00 mm ²	grey	5.0 m



Power Cable CEE7/7 180° - C13 90°

10 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EKS34.2	0.75 mm ²	Black	2.0 m
EKS34.3	1.00 mm ²	Black	3.0 m
EKS34.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - C13 90°

10 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EKS35.2	0.75 mm ²	Black	2.0 m
EKS35.3	1.00 mm ²	Black	3.0 m
EKS35.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 180° - C19 180°

16 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK511.1,8	1.50 mm ²	Black	1.8 m
EK511.3	1.50 mm ²	Black	3.0 m

NEW!



Power Cable CEE 7/7 90° - C19 180°

16 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK511W.1,8	1.50 mm ²	Black	1.8 m



Power Cable CEE7/7 90° - C15

Power cable CEE7/7 90° to warm device plug IEC C15
10 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK625.1,8	1.00 mm ²	Black	1.8 m



Power Cable CEE7/7 90° - C5 180°

2.5 A / 250 V VDE tested
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK552.1,8V2	0.75 mm ²	Black	1.8 m
EK552.3V2	0.75 mm ²	Black	3.0 m
EK552.5V2	0.75 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - C5 90°

2.5 A / 250 V VDE tested
Colour black
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK551.1,8	0.75 mm ²	Black	1.8 m
EK551.3	1.00 mm ²	Black	3.0 m
EK551.5	1.00 mm ²	Black	5.0 m



Power Cable CEE7/7 90° - Open End

16 A / 250 V VDE tested
Open End assembled with wire end sleeves
Wire end sleeves for 1.8 m: L = 6 mm, 1.7 mm, yellow insulator
Wire end sleeves for 3 + 5 m: L = 8 mm, 1.7 mm, red insulator
Suitable for Germany, Belgium, France and further

Art.-No.	Conductor Ø	Colour	Length
EK504AE.1,8	0.75 mm ²	Black	1.8 m
EK504AE.3	1.00 mm ²	Black	3.0 m
EK504AE.5	1.00 mm ²	Black	5.0 m

NOTHING FOUND YET?

YOU WILL FIND AN EVEN LARGER PRODUCT SELECTION
IN OUR ONLINE SHOP!



„Unique‘ Female IEC C13/C19 Connector „IEC-Lock“



Ensures high availability through protection against accidentally disconnection of power supply for computers, servers and other high reliable devices.

Compatible with all common IEC plugs C14/C20
 Protects vibration-hazarded devices
 Plug can not be removed unintentionally
 Use in data systems, medicine, broadcasting, maritime and others
 International cables, special colours and special lengths possible
 Device plugs C14/C20 with IEC Lock available on request.

How it Works:

Push the connector into the standard IEC inlet and it is locked in position

Connector can not accidentally be pulled or released by vibration

Slide back the red latch to release and remove the connector from inlet



Power Cable CEE7/7 90° - C13 180°, IEC Lock+

The „IEC Lock+“ prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch
 10 A / 250 V VDE tested (optional: orange, blue, grey, white)
 Suitable for Germany, Belgium, France and further
 Other types on request: UK, USA/NEMA, Switzerland, open end

Art.-No.	Conductor Ø	Colour	Length
EK603SW.2	1.00 mm ²	Black	2.0 m



OTHER COLOURS AVAILABLE ONLINE



Power Cable CEE7/7 90° - C13 180°, IEC Lock

The „IEC Lock“ prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch
 10 A / 250 V VDE tested (optional: orange, blue, grey, white)
 Suitable for Germany, Belgium, France and further
 Other types on request: UK, USA/NEMA, Switzerland, open end

Art.-No.	Conductor Ø	Colour	Length
EK600SW.1	1.00 mm ²	Black	1.0 m
EK600SW.1,5	1.00 mm ²	Black	1.5 m
EK600SW.2	1.00 mm ²	Black	2.0 m
EK600SW.3	1.00 mm ²	Black	3.0 m



Extension Cable C14 180° - C13 180°, IEC Lock

The „IEC Lock“ prevents accidentally removing of the C13 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch
 10 A / 250 V VDE tested (optional: orange, blue, grey, white)
 International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK601SW.0,5	1.00 mm ²	Black	0.5 m
EK601SW.1	1.00 mm ²	Black	1.0 m
EK601SW.1,5	1.00 mm ²	Black	1.5 m
EK601SW.2	1.00 mm ²	Black	2.0 m
EK601SW.3	1.00 mm ²	Black	3.0 m



Extension Cable C20 180° - C19 180°, IEC Lock

The „IEC Lock“ prevents accidentally removing of the C19 jack from devices

After connecting, the C13 jack only can be released after sliding back the red latch
 16 A / 250 V VDE geprüft
 International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK607SW.1	1.50 mm ²	Black	1.0 m
EK607SW.2	1.50 mm ²	Black	2.0 m
EK607SW.3	1.50 mm ²	Black	3.0 m



Locking Connector IEC-Lock+

Connector cannot be accidentally pulled or vibrated out of ANY STANDARD C14 IEC inlet

Requires no other equipment or special inlets to secure it
 Rewireable
 Offering total flexibility for cable assembly
 Can be retrofitted
 Halogen free (LSZH)

Art.-No.	Description
60319.1	Locking Connector IEC-Lock+ C13 for Cable Assembly



Extension Cable C14 180° - C13 180°

Plug IEC60320/C14 to jack IEC60320/C13
10 A / 250 V VDE tested
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK503.0,5	0.75 mm ²	Black	0.5 m
EK503.1	0.75 mm ²	Black	1.0 m
EK503.2	0.75 mm ²	Black	2.0 m
EK503.3	1.00 mm ²	Black	3.0 m
EK503.5	1.00 mm ²	Black	5.0 m



Extension Cable C13 180° - C14 180°, LSZH

Plug IEC60320/C14 to jack IEC60320/C13
Halogen free
Cable H05Z1Z1-F 3 x 1.00 mm²
10 A / 250 V VDE tested
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK503ZH.1,8	1.00 mm ²	Black	1.8 m



Extension Cable C14 180° - C15 180°

Plug IEC60320/C14 to jack IEC60320/C15
10 A / 250 V VDE tested
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK585.1	0.75 mm ²	Black	1.0 m
EK585.2	0.75 mm ²	Black	2.0 m
EK585.3	0.75 mm ²	Black	3.0 m



Extension Cable C14 180° - C13 180°

Plug IEC60320/C14 to jack IEC60320/C13
10 A / 250 V VDE tested
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK507.1,8	0.75 mm ²	grey	1.8 m
EK507.3	1.00 mm ²	grey	3.0 m
EK507.5	1.00 mm ²	grey	5.0 m



Extension Cable C20 180° - C19 180°

Plug IEC60320/C20 to jack IEC60320/C19
16 A / 250 V VDE tested
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK519.1	1.50 mm ²	Black	1.0 m
EK519.1,8	1.50 mm ²	Black	1.8 m
EK519.2,5	1.50 mm ²	Black	2.5 m
EK519.5	1.50 mm ²	Black	5.0 m



Extension Cable C19 180° - C20 180°, LSZH

Plug IEC60320/C20 to jack IEC60320/C19
Halogen free
16 A / 250 V VDE tested
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK519ZH.1,8	1.50 mm ²	Black	1.8 m



Extension Cable C20 180° - C13 180°

Plug IEC60320/C20 to jack IEC60320/C13
10 A / 250 V VDE tested
International standardised connectors

Art.-No.	Conductor Ø	Colour	Length
EK531.1,8	1.00 mm ²	Black	1.8 m



Extension Cable Euro Plug - Euro Jack

2.5 A / 250 V VDE tested
Suitable for Europe, except of UK, Ireland, Malta, Cyprus

Art.-No.	Conductor Ø	Colour	Length
EK644.0,2	0.75 mm ²	Black	0.2 m



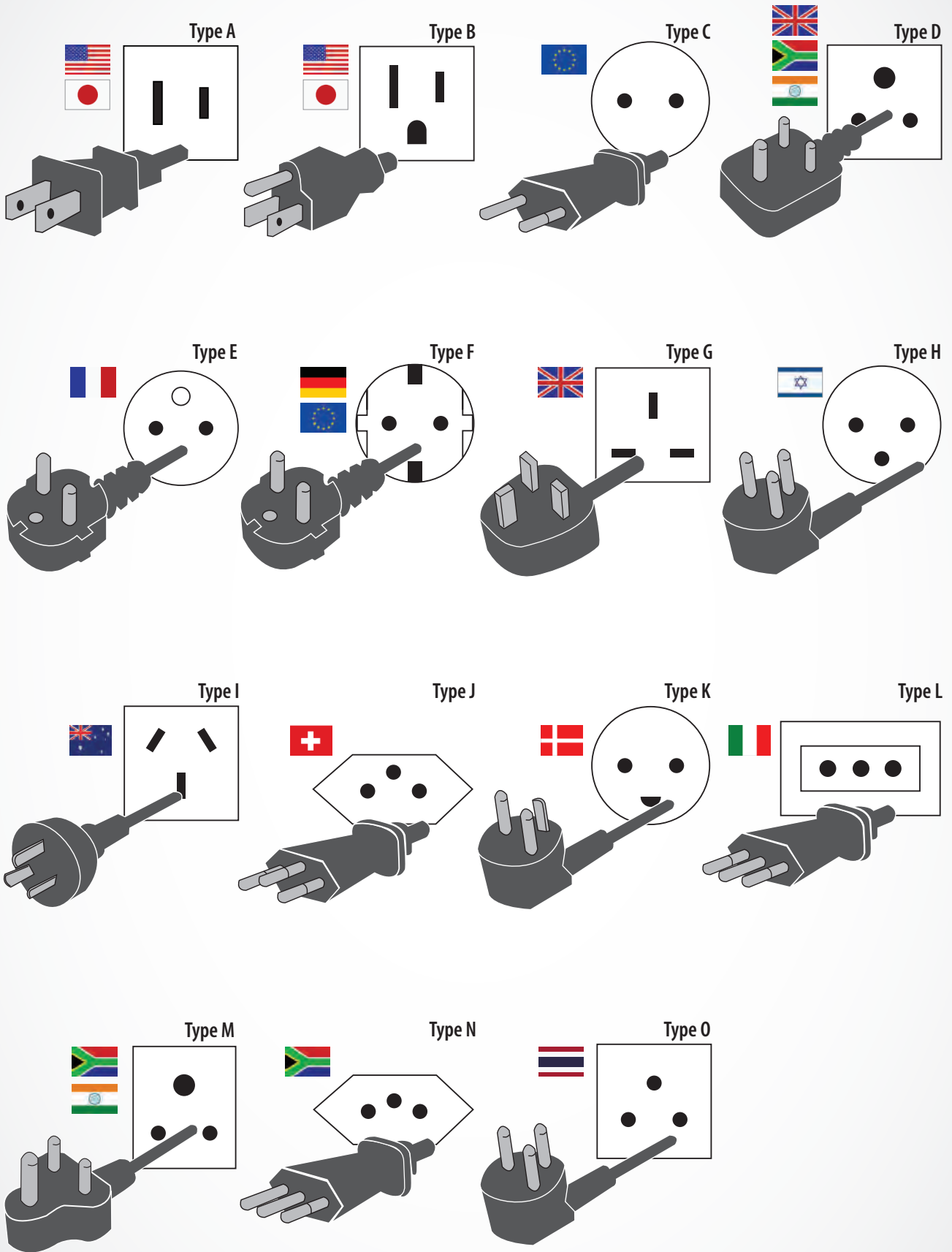
Power Cable Euro - C7 180°

2.5 A / 250 V VDE tested
Suitable for Europe, except of UK, Ireland, Malta, Cyprus

Art.-No.	Conductor Ø	Colour	Length
EK502.2V2	0.75 mm ²	Black	2.0 m
EK502.3	0.75 mm ²	Black	3.0 m
EK502.5	0.75 mm ²	Black	5.0 m



OVERVIEW INTERNATIONAL PLUG TYPES





Power Cable UK BS1363A - C13 90°

2.5 A / 250 V with fuse 3 A
Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK460.1,8	0.75 mm ²	Black	1.8 m



Power Cable UK BS1363A - C13 180°

10 A / 250 V with fuse 5 A
Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK484.2	1.00 mm ²	Black	2.0 m



Power Cable UK BS1363A - C13 180°

5 A / 250 V with fuse 5 A
Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK500.2	0.75 mm ²	Black	2.0 m
EK500.3	1.00 mm ²	Black	3.0 m
EK500.5	1.00 mm ²	Black	5.0 m



Power Cable UK BS1363A - C7 180°

2.5 A / 250 V with fuse 3 A
Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK498.1,8	0.75 mm ²	Black	1.8 m
EK498.3	0.75 mm ²	Black	3.0 m
EK498.5	0.75 mm ²	Black	5.0 m



Power Cable UK BS1363A - C5 180°

2.5 A / 250 V with fuse 3 A
Suitable for UK, Ireland, Singapur, Malaysia

Art.-No.	Conductor Ø	Colour	Length
EK499.1,8	0.75 mm ²	Black	1.8 m
EK499.3	0.75 mm ²	Black	3.0 m
EK499.5	0.75 mm ²	Black	5.0 m



**Power Cable USA/NEMA 5-15P - C13 180°
3SJT AWG14**

10(15) A / 125 V (15 A only in USA)
UL, CSA approved
Suitable for USA, Canada, Mexico, Taiwan, Brasilia

Art.-No.	Conductor Ø	Colour	Length
EK462.1,8	2.08 mm ²	Black	1.8 m



**Power Cable USA/NEMA 5-15P - C13 180°
SVT AWG18**

10 A / 125 V
UL, CSA approved
Suitable for USA, Canada, Mexico, Taiwan, Brasilia

Art.-No.	Conductor Ø	Colour	Length
EK518.1,8	0.83 mm ²	Black	1.8 m



**Power Cable USA/NEMA 5-15P - C5 180°
SVT AWG18**

7 A / 125 V
UL, CSA approved
Suitable for USA, Canada, Mexico, Taiwan, Brasilia

Art.-No.	Conductor Ø	Colour	Length
EK497.1,8	0.83 mm ²	Black	1.8 m



**Power Cable USA/NEMA 1-15P - C7 180°,
SPT-2 AWG18**

7 A / 125 V
UL, CSA approved
Suitable for USA, Canada, Mexico, Taiwan, Brasilia

Art.-No.	Conductor Ø	Colour	Length
EK496.1,8	0.83 mm ²	Black	1.8 m



Power Cable Denmark DPin 90° - C13 180°

6 A / 250 V
Suitable for Denmark

Art.-No.	Conductor Ø	Colour	Length
EK539.1,8	0.75 mm ²	Black	1.8 m
EK539.3	0.75 mm ²	Black	3.0 m



Power Cable Denmark DPin 90° - C5 180°

2.5 A / 250 V
Suitable for Denmark

Art.-No.	Conductor Ø	Colour	Length
EK540.1,8	0.75 mm ²	Black	1.8 m



Power Cable Switzerland Type 12 - C13 180°

10 A / 250 V
Suitable for Switzerland, Liechtenstein, Ruanda

Art.-No.	Conductor Ø	Colour	Length
EK537.2V3	0.75 mm ²	Black	2.0 m



Power Cable Switzerland Type 12 - C13 90°

10 A / 250 V
Suitable for Switzerland, Liechtenstein, Ruanda

Art.-No.	Conductor Ø	Colour	Length
EK483.1,8V2	0.75 mm ²	Black	1.8 m



Power Cable Switzerland Type 12 - C5 180°

2.5 A / 250 V
Suitable for Switzerland, Liechtenstein, Ruanda

Art.-No.	Conductor Ø	Colour	Length
EK495.1,8V2	0.75 mm ²	Black	1.8 m



Power Cable Italy Type L - C13 180°

10 A / 250 V
Suitable for Italy

Art.-No.	Conductor Ø	Colour	Length
EK538.1,8	0.75 mm ²	Black	1.8 m



Power Cable Italy Type L - C5 180°

2.5 A / 250 V
Suitable for Italy

Art.-No.	Conductor Ø	Colour	Length
EK494.1,8	0.75 mm ²	Black	1.8 m



Power Cable Japan Type B - C13 180° VCTF

7 A / 125 V
Suitable for Japan

Art.-No.	Conductor Ø	Colour	Length
EK490.1,8	0.75 mm ²	Black	1.8 m



Power Cable Japan Type B - C5 180° VCTF

2.5 A / 125 V
Suitable for Japan

Art.-No.	Conductor Ø	Colour	Length
EK482.1,8	0.75 mm ²	Black	1.8 m



Power Cable China Type I - C13 180°

10 A / 250 V
Suitable for China

Art.-No.	Leiter Ø	Farbe	Länge
EK492.1,8	0,75 mm ²	black	1,8 m
EK492.1,8V2	0,75 mm ²	Black	1.8 m



Power Cable China Type A - C7 180°

10 A / 250 V
Suitable for China

Art.-No.	Conductor Ø	Colour	Length
EK480.1,8	0,75 mm ²	Black	1.8 m



Power Cable China Type I - C5 180°

10 A / 250 V
Suitable for China

Art.-No.	Conductor Ø	Colour	Length
EK481.1,8	0,75 mm ²	Black	1.8 m



Power Cable Australia - C13 180°

10 A / 250 V
Suitable for Australia, New Zealand, Papua New Guinea

Art.-No.	Conductor Ø	Colour	Length
EK493.1,8	0,75 mm ²	Black	1.8 m



Power Cable Australia - C13 90°

10 A / 250 V
Suitable for Australia, New Zealand, Papua New Guinea

Art.-No.	Conductor Ø	Colour	Length
EK469.1,8	0,75 mm ²	Black	1.8 m



Power Cable Australia - C7 180°

2.5 A / 250 V
Suitable for Australia, New Zealand, Papua New Guinea

Art.-No.	Conductor Ø	Colour	Length
EK487.1,8	0,75 mm ²	Black	1.8 m



Power Cable Australia - C5 180°

2.5 A / 250 V
Suitable for Australia, New Zealand, Papua New Guinea

Art.-No.	Conductor Ø	Colour	Length
EK468.1,8	0,75 mm ²	Black	1.8 m



Power Cable South Africa - C13 180°

10 A / 250 V
Suitable for South Africa, India

Art.-No.	Conductor Ø	Colour	Length
EK488.1,8	0,75 mm ²	Black	1.8 m



Power Cable South Africa - C13 180°

2.5 A / 250 V
Suitable for South Africa, India

Art.-No.	Conductor Ø	Colour	Length
EK467.1,8	0,75 mm ²	Black	1.8 m



Power Cable Israel 90° - C13 180°

Mains plug angled to IEC60320/C13 socket
Cable assembly H05VV-F 3G 0.75 mm²
10 A / 250 V, colour black
Suitable for Israel, Gaza Strip, Palestine, West Bank

Art.-No.	Conductor Ø	Colour	Length
EK491.1,8	0,75 mm ²	Black	1.8 m



Power Adapter IEC C14 to IEC C5, Cold Device Plug - Mickey Mouse

Power adapter 250 V/2.5 A max.
Material PVC, black
UL certified

Art.-No.	Description
EB515	Power adapter IEC C14 - IEC C5, Cold Device Plug - Mickey Mouse



Power Adapter IEC C14 to IEC C7, Cold Device Plug - Euro 8 Jack

Power adapter 250 V/2.5 A max.
Material PVC, black
UL certified

Art.-No.	Description
EB515.2	Power Adapter IEC C14 - IEC C7, Cold Device Plug - Euro 8 Jack



Power Adapter IEC C6 to IEC C7, Mickey Mouse Plug - Euro 8 Jack

Power adapter 250 V/2.5 A max.
Material PVC, black
UL certified

Art.-No.	Description
EB515.3	Mains adapter IEC C6 to IEC C7, Mickey Mouse plug - Euro 8 socket



Power Adapter IEC C20 to CEE7/3, Cold Device Plug - Protective Contact Jack

Power adapter 250 V/16 A max.
Material PVC, black

Art.-No.	Description
EB515.5	Mains adapter IEC C20 to CEE7/3, IEC plug - protective contact socket



Power Adapter CEE7/7 to IEC C13, Protective Contact Plug - Cold Device Jack

Power adapter 250 V/10 A max.
Material PVC, black

Art.-No.	Description
EB515.6	Mains adapter CEE7/7 to IEC C13, earthing contact plug - mains socket



Power Adapter CEE7/7 to IEC C13 90°, Protective Contact Plug - Cold Device Jack

Power adapter 250 V/10 A max.
Material PVC, black

Art.-No.	Description
EB515.7	Mains adapter CEE7/7 to IEC C13 90°, earthing contact plug - IEC socket



Power Adapter CEE7/16 to IEC C7, Euro Plug - Euro 8 Jack

Power adapter 250 V/2.5 A max.
Material PVC, black

Art.-No.	Description
EB515.8	Mains adapter CEE7/16 to IEC C7, Euro plug - Euro 8 socket



POWER SUPPLIES FOR DIN-RAIL AT P. 329



// POWERFUL

MULTIMEDIA-PRODUCTS



SERIAL & PARALLEL
CABLE & ADAPTER // P. 302

VIDEO COMPONENTS

// P. 284

2

USB // P. 272

1

ICON LEGEND // MULTIMEDIA



USB-
Standard



Transmission
Speed



4K Ultra HD
Resolution



FULL HD
Resolution



SVGA
Resolution



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USB Type C Cable	P. 274
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USB3.0 Accessory	P. 279
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// YOU MIGHT ALSO BE INTERESTED IN:

USB Socket Strips	P. 252
USB Type C Video Cable	P. 286
19" Tablet Rack Module	P. 209



OVERVIEW OF CURRENT USB STANDARDS

With the publication of the USB3.2 standard 2019, the adoption of another new USB standard was already apparent.

The aim of the USB4 standard is to combine the USB and the Apple Thunderbolt Standard into one interface.

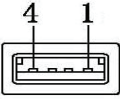
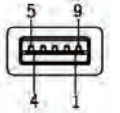
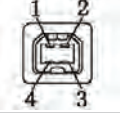


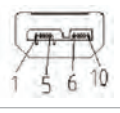
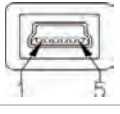
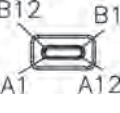
USB4 Cable can be fully compatible with the Thunderbolt3 interface, however, a corresponding chipset is required in the cables.



USB STANDARD	MAX. SPEED	MAX. CURRENT/POWER	CONNECTOR
USB4 Gen3 x 2	40 Gbit/s	5000 mA / 240W	Type C
USB4 Gen3 x 1	20 Gbit/s	5000 mA / 100 W	Type C
USB3.2 Gen2x2	20 Gbit/s	5000 mA / 100 W	Type C
USB3.2 Gen2	10 Gbit/s	5000 mA / 100 W	Typ A, Type C
USB3.2 Gen1*	5 Gbit/s	3000 mA / 15 W	Typ A; Type C
USB2.0	480 Mbit/s	500 mA / 2.5 W	Typ A; Typ B; Typ Mini-B; Typ Micro-B; Lightning
USB1.1	12 Mbit/s	500 mA / 2.5 W	Typ A; Typ B

*Behind the USB3.2 Gen1, USB3.1 Gen1 and USB3.0 standards are the same specifications. This is just a name change.

CONNECTOR VARIANTS

CONNECTOR	VARIANTS	FEATURE	MAX. CABLE LENGTH (ACORDING TO STANDARD)
	Typ A (USB2.0)	<ul style="list-style-type: none"> 4 Pins white inlet 1500 mating cycles 	with USB2.0 cable: 5000 mm
	Typ A (USB3.0/3.1/3.2)	<ul style="list-style-type: none"> 9 Pins blue inlet 1500 mating cycles (Standard) 5000 mating cycles (HDC) 	with USB3.0 cable: 3000 mm with USB3.2 cable: 1000 mm
	Typ B (USB2.0)	<ul style="list-style-type: none"> 4 Pins white inlet 1500 mating cycles 	with USB2.0 cable: 5000 mm
	Typ B (USB3.0)	<ul style="list-style-type: none"> 9 Pins blue inlet 1500 mating cycles 	with USB3.0 cable: 3000 mm
	Typ Micro-B (USB2.0)	<ul style="list-style-type: none"> 5 Pins 10000 mating cycles 	with USB2.0 cable: 2000 mm
	Typ Micro-B (USB3.0/3.1)	<ul style="list-style-type: none"> 10 Pins 10000 mating cycles 	with USB3.0 cable: 3000 mm with USB3.1 cable: 1000 mm
	Typ Mini-B (USB2.0)	<ul style="list-style-type: none"> 5 Pins 5000 mating cycles 	with USB2.0 cable: 5000 mm
	Type C (USB2.0/3.1/3.2/4)	<ul style="list-style-type: none"> 24 Pins 10000 mating cycles verdrehsicher 	USB3.2 2x2: 1000 mm USB3.2 Gen.1: 2000 mm other combinations possible USB4 Gen3x1: 2000 mm USB4 Gen3x2: 800 mm



EQUIP YOUR TYPE C DEVICE WITH SUITABLE CABLE AND ACCESSORY

MULTIMEDIA



USB4 40Gbit/s Connection Cable, TB3, 100W

USB4 Gen3x2 cable for connection as data, video and charging cable
40Gbit / s bandwidth
Thunderbolt 3 compatible
Power delivery up to 100W
Video resolution up to 10K30Hz, 8K60Hz oder 4K120Hz
With E-Mark chip for safe power supply
Downward compatible with USB3.2 and USB2.0

Connector 1: USB-C Plug moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.5 - 1.0 m

Art.-No.	Colour
EBUSBC40-TB40G.0,8	black



USB4 20Gbit/s Connection Cable, TB3, 100W

USB4 cable for connection as data, video and charging cable
20Gbit/s bandwidth
Thunderbolt 3 compatible
Power delivery up to 100W
Video resolution up to 8K60Hz or 4K120Hz
With E-Mark chip for safe power supply
Downward compatible with USB3.2 and USB2.0

Connector 1: USB-C Plug moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.5 - 1.0 m

Art.-No.	Colour
EBUSBC40-20G.2	black



USB3.2 Gen.2x2 20Gbit 5A Connection Cable Plug Type C to Plug Type C

USB3.2 Gen2x2 SuperSpeed connection cable
20Gbit transmission speed
Charging with 100W / 20V / 5A
Reversible and both sides usable type-C plug
With E-Mark chip in the plug

Connector 1: USB-C Plug moulded
Connector 2: USB-C Plug moulded

Stock Lengths: 0.5 - 1.0 m

Art.-No.	Colour
K5283-5ASW.x	black



USB3.2 Gen2 10Gbit 3A Type C - C Extension cable, passive

USB3.2 Gen2x2 SuperSpeed extension with type C male to type C female
10Gbit transmission speed
Charging with up to 60W / 20V / 3A
Reversible type C interface

Connector 1: USB-C Plug moulded
Connector 2: USB-C Jack moulded

Stock Lengths: 0.2 - 1.0 m

Art.-No.	Colour
EBUSBC-USBC10GE.x	black



USB3.2 Gen.1 5Gbit 3A Connection Cable Type C Plug to Type C Plug

Connector 1: USB-C Plug moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.5 - 1.0 m

Art.-No.	Colour
K5283SW.xV2	black



USB3.2 Gen.1 5Gbit 3A Connection Cable Type C Plug to Type A Plug

Connector 1: USB-A Plug moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.5 - 1.0 m

Art.-No.	Colour
K5282-3ASW.x	black



USB3.2 Gen1 5Gbit 3A Cable, Type C 90° angled - Type A jack

Connector 1: USB-A Plug moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.5 - 1.0 m

Art.-No.	Colour
EBUSBC-USBC5GAK.x	black



USB3.2 Gen.1 5Gbit Adapter Cable Type C male / Type A female

Connector 1: USB-A Jack moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.2 m

Art.-No.	Colour
K5313SW.0,2	black



USB2.0 Connection Cable Plug Type C to Plug Type A, Premium

Connector 1: USB-A Plug moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.5 - 1.0 - 2.0 m

Art.-No.	Colour
K5258SW.x	Black



USB2.0 Cable, Type C Plug - Type A Plug, Classic

Connector 1: USB-A Plug moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.5 - 1.0 m

Art.-No.	Colour
EBUSBC-USB20AK.x	Black



USB2.0 Cable Type C Plug to Type C Plug, Classic

Connector 1: USB-C Plug moulded
Connector 2: USB-C Plug moulded
Stock Lengths: 0.5 - 1.0 - 2.0 - 3.0 m

Art.-No.	Colour
EBUSBC-USB20CK.1	black



USB2.0 Type C to Apple Lightning Cable, MFI cert.

Connector 1: USB-C Plug moulded
Connector 2: Lightning moulded
Stock Lengths: 1.0 - 2.0 - 3.0 m

Art.-No.	Colour
EBUSBC-LIGHTMFI.x	Black



USB Type C Adapter

Art.-No.	Description
EBUSBCM-MIKROBF	USB2.0 Adapter Type C Male - Micro-B Female
EBUSBCM-AF	USB3.0 Adapter Type C Male auf Typ-A Female
EB552	Keystone Snap-In Adapter USB3.1 black, Type-C-jack/C-jack, 10Gbit/s, 60W
EB552WS	Keystone Snap-In Adapter USB3.1 white, Type-C-jack/C-jack, 10Gbit/s, 60W



EBUSBC-USBA10GE.5



EBUSBC-USBC10GE.5



USB3.2 Active Extender Cable

Active extender cable c devices.
 Compatible with USB3.2, backwards compatible with USB3.0 and USB2.0
 Supports a maximum distance of 10 m (by connecting several cables)
 Supports up to 5V/900mA for Type-A and 1.5A for Type-C devices

Hint
 1) For a 10Gbit bandwidth, the Type-C host must support 10Gbit transmission.

Art.-No.	Type	Type	Colour
EBUSBC-USBA10GE.5	USB3.2 10Gbit Type C to A Extender	USB3.2 10Gbit Type C to A Extender	black
EBUSBC-USBC10GE.5	USB3.2 10Gbit Type C to C Extender	USB3.2 10Gbit Type C to C Extender	black
EBUSBC-USBC-REP5	USB3.2 5Gbit Type C auf C Extension	USB3.2 5Gbit Type C auf C Extension	black



EBUSBC-RJ45-2500MBIT



EBUSBC-RJ45-1000MBIT

USB Type C Network Adapter

Network converter with Type-C connector and RJ45 output
 Supports USB-C plug and play, hot swap
 Supports 10M/100M/1G/2.5G(depending on the model) bandwidth
 Supports twisted pair crossover detection and auto-correction
 USB bus power (no external power supply)
 Support WOL(Wake-On-LAN), Full Duplex flow(10M/100M/1G/2.5G Rate), Auto-Negotiation
 Supports Operating system for computers:
 Windows: Windows 7 / Windows 8/Windows10/ Windows Vista/ Windows XP (32/64bit) / Mac
 OS X 10.6 to 10.12.5

Art.-No.	Type	Colour
EBUSBC-RJ45-1000MBIT	USB Type C GigaBit Network Adapter	white
EBUSBC-RJ45-2500MBIT	USB Type C 2.5Gbit Network Adapter	black

MORE TYPE C VIDEO-ADAPTER/-CONVERTER IN OUR VIDEOCOMPONENTS SUBCHAPTER ON PAGE 286.





USB Super Speed Hub 4-Ports with USB Type C-PD Cable, 60W

USB Type C Hub with 4 USB3.0 ports and 1 Type C powered device port, compact and lightweight in minimal design
 Fused with a USB Type-C connection cable, ideal for the new Macbook
 Robust structure, elegant sandblasted aluminum finish
 Allows you to connect up to 4 USB devices
 Supports transfer rates of up to 5 Gbps, allows fast synchronization and leaves more time to work (or play)
 The PD connector supports up to 60 W (20 V / 3 A).
 Compatible with USB3.0, 2.0, 1.1 and 1.0
 Plug and Play

Art.-No.	Description
IUSB31C-HUB4TLY	USB Super Speed Hub 4-Ports with USB Type C-PD Cable, 60W



USB Type C Docking Station to 3 x USB3.0, 1x HDMI 4K30Hz, 1x Type C PD

USB Type-C hub with 1x HDMI 4K, 3x USB A and 1 x USB Type-C PD port
 Expand your Type-C host device (e.g. notebook) with additional USB3.0 and HDMI 4K30Hz connections.
 3x USB-A 3.0 ports for fast charging and data transfer with up to 5 Gbit / s
 1x Type-C PD port with supports of up to max. 80W
 Robust metal housing

Art.-No.	Description
IADAP-USB31-DOCK4	USB Type-C to 3x USB3.0, 1x HDMI 4K @ 30Hz, 1x Type-C PD



USB Type C Docking Station to 2x USB3.0, HDMI, VGA, RJ45, USB Type C, SD

Multiport USB-C 8-in-1 docking station enables you to expand your PC or notebook.
 Expansion ports for 1x USB-C PD (up to 87W charging power), 1x HDMI port (max. 4K30Hz), 1x VGA port (max. 1080P),
 1x Gigabit Ethernet port, 1x SD / TF card slot reader and 2x USB3.0 ports
 Ultra-fast data transmission of up to 5 Gbit/s and the HDMI connection enables Mirroring or extension of the video signal on an HD monitor with up to 4K30Hz resolution
 Stylish and slim design: aluminum housing, with fixed Type-C connection cable
 Simple operation: no installation or software required. An ideal USB-C expansion hub for all USB-C devices

Art.-No.	Description
IADAP-USB31-DOCK3	USB Type-C Docking Station to 2x USB3.0, HDMI, VGA, RJ45, USB Type-C, SD



USB3.0 PREMIUM FEATURES

PREMIUM CableSERIES USB3.0 CHARACTERISTICS:

Data wire SuperSpeed: AWG30/7 bare copper tinned, paired in metal foil
 Electrical Conductor: AWG20/7 bare copper, tinned, Micro B: AWG24/7 bare copper, tinned
 Shielding: Braiding 65% coverage
 Reliability: up to 3000mm with max. load of 900mA assured!

USB3.0 CLASSIC FEATURES

CLASSIC Cable Series USB3.0 Characteristics:

The USB3.0 CLASSIC Series stands for an excellent price/quality relation. Proven cable technology for all standard application in SuperSpeed or HighSpeed Modus.



USB3.0 Connection Cable Type A Plug to Type B Plug, Premium

Connector 1: USB-A Plug moulded
 Connector 2: USB-B Plug moulded

Stock Lengths: 1.0 - 1.8 - 3.0 m

Art.-No.	Colour
K5236.x	black



USB3.0 Connection Cable Type A Plug to Type B Plug, Classic

Connector 1: USB-A Plug moulded
 Connector 2: USB-B Plug moulded

Stock Lengths: 1.0 - 1.8 - 3.0 m

Art.-No.	Colour
K5247SW.x	black



USB3.0 Connection Cable Type A Plug to Type A Plug, Premium

Connector 1: USB-A Plug moulded
 Connector 2: USB-A Plug moulded

Stock Lengths: 1.0 - 1.8 - 3.0 m

Art.-No.	Colour
K5210SW.x	black



USB3.0 Connection Cable Type A Plug to Type A Plug, Classic

Connector 1: USB-A Plug moulded
 Connector 2: USB-A Plug moulded

Stock Lengths: 1.0 - 1.8 - 3.0 m

Art.-No.	Colour
K5280SW.x	black



USB3.0 Extension Cable Type A Plug to Type A Jack, Premium

Connector 1: USB-A Plug moulded
 Connector 2: USB-A Jack moulded

Stock Lengths: 1.0 - 1.8 - 3.0 m

Art.-No.	Colour
K5237.x	black



USB3.0 Extension Cable Type A Plug to Type A Jack, Classic

Connector 1: USB-A Plug moulded
 Connector 2: USB-A Jack moulded

Stock Lengths: 1.0 - 1.8 - 3.0 m

Art.-No.	Colour
K5268SW.x	black



**19" USB SOCKET STRIPS
 CAN BE FOUND IN THE CHAPTER
 POWER SUPPLY ON PAGE 252.**



USB3.0 Connection Cable Type A Plug to Type A Panel Jack, Classic

Connector 1: USB-A Plug moulded
Connector 2: USB-A Jack moulded
Stock Lengths: 0.5 - 1.0 - 1.8 m

Art.-No.	Colour
K5265SW.x	black



USB3.0 Connection Cable Type B Plug to Type B Panel Jack, Classic

Connector 1: USB-B Plug moulded
Connector 2: USB-B Jack moulded
Stock Lengths: 0.5 - 1.0 - 1.8 m

Art.-No.	Colour
K5264SW.x	black



USB3.2 Gen.1 Keystone Adapter A Female -A Female

Snap-In mounting (Keystone)
Connecting adapter for USB cables
2x USB connectors Type A
For data transmission rates up to 5Gbit/s
Plastic housing
Snap-in spring: plastic

Art.-No.	Description
EB537V2	Keystone Adapter USB3.2 Gen 1, A - A, black



USB3.0 Active Extension Cable, 5 m

Extends and amplifies the signal to any USB device with a Type A port - supports transfer rates up to 5 Gbit / s
The built-in repeater helps to maintain the signal quality, the electrical specifications and the timing of USB3.0
Extends the Connection up to 5 m without loss of signal
Plug & Play;
Windows and Mac compatible - bus powered so no external power supply is required

Art.-No.	Description
ICUR3050	USB3.0 Active Extension Cable, 5 m



USB3.0 Desktop Extension Cable

USB jack type A moulded in plastic housing
Additional USB jack type A for power supply

Art.-No.	Description	Length
EB458	USB3.0 Desktop Extension Cable	1.5 m



USB3.0 to Gigabit Ethernet

1 x USB3.0 - plug to 1 x RJ45 - jack
Cable length: 109mm
compatible zu USB2.0/3.0
Supports 10/100/1000 Mbps
Plug & Play
Plastic housing
Powered by USB Port, no external power supply needed

Art.-No.	Description
EB457	USB3.0 to RJ45 Gigabit Ethernet 10/100/1000



USB3.0 Gigabit Ethernet Adapter with 3 Port USB Hub

Supports Gigabit Ethernet access for your PC/ Notebook/Tablet over your USB port
1x Full Duplex Gigabit Ethernet (RJ45) Port with 3 Port USB3.0 Hub

Art.-No.	Description
IDATA-USB-ETGIGA-3U2	Converter 1x USB A Male to 1x RJ45 Female & 3x USB A Female



USB3.0 Hub 4-Port, Desktop

Supports the connecting up to four devices to one computer
Supported data transfer rates : 1,5/-12/-480 Mbps, 5 Gbit/s
Overload protection (per Port)
Plug-and-Play, no software installation needed
Compact design and incl. power supply

Art.-No.	Description
EB3101	USB3.0 Hub 4-Port ind. 5V4A PS+Connection Cable



USB3.0 Super Speed Hub 4-Port

Offers 4 x USB Type A ports and a 1x Micro-B USB port
Ideal for charging USB3.0 or 2.0 devices such as telephones, cameras and MP3 players
Equipped with power saving functions and over-current protection
The hub is compatible with the previous USB versions 2.0 and 1.1

Art.-No.	Description
IUSB3-HUB4-WH	USB3.0 Super Speed Hub 4-Port



USB2.0 PREMIUM FEATURES

PREMIUM Cable Series USB2.0 Stand Out Characteristics:

- Twisted Pair data wire: AWG28/7 bare copper tinned
- Shielding 1: Tinned copper braiding 80% coverage
- Shielding 2: Aluminium foil 100% coverage
- Reliability: up to 5000mm with max. load of 500mA assured !

USB2.0 CLASSIC FEATURES

CLASSIC Cable Series USB2.0 Characteristics:

The USB2.0 CLASSIC Series stands for an excellent price/quality relation. Proven cable technology for all standard application in High Speed Modus.



USB2.0 Connection Cable Type A Plug to Type B Plug, Premium

Connector 1: USB-A Plug moulded
Connector 2: USB-B Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5256SW.x	black



USB2.0 Connection Cable Type A Plug to Type B Plug, Classic

Connector 1: USB-A Plug moulded
Connector 2: USB-B Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5255.x	grey
K5255SW.x	black



USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Premium

Connector 1: USB-A Plug moulded
Connector 2: USB-Mini B Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5251SW.x	black



USB2.0 Connection Cable Type A Plug to Type Mini-B Plug, Classic

Connector 1: USB-A Plug moulded
Connector 2: USB-Mini B Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5250.xV2	grey
K5250SW.xV2	black



USB2.0 Connection Cable Type A Plug to Type Micro-B Plug, Premium

Connector 1: USB-A Plug moulded
Connector 2: USB-Micro B Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 m

Art.-No.	Colour
K5232SW.x	black



USB2.0 Connection Cable Type A Plug to Type Micro-B Plug, Classic

Connector 1: USB-A Plug moulded
Connector 2: USB-Micro B Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 m

Art.-No.	Colour
K5228SW.xV2	black



USB2.0 Extension Cable Plug Type A to Type A Jack, Premium

Connector 1: USB-A Plug moulded
Connector 2: USB-A Jack moulded
Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5220SW.x	black



USB2.0 Extension Cable Plug Type A to Type A Jack, Classic

Connector 1: USB-A Plug moulded
Connector 2: USB-A Jack moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5248.xV2	grey
K5248SW.xV2	black



USB2.0 Connection Cable Type A Plug to Type A Plug, Classic

Connector 1: USB-A Plug moulded
Connector 2: USB-A Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5253SW.x	black



USB2.0 Connection Cable Type B Plug to Type B Panel jack, Classic

Connector 1: USB-B Plug moulded
Connector 2: USB-B Jack moulded
Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 m

Art.-No.	Colour
K5293SW.x	Black



USB2.0 Connection Cable Type A Plug to Panel Jack A, Classic

Connector 1: USB-A Plug moulded
Connector 2: USB-A Jack moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 m

Art.-No.	Colour
K5291SW.x	black



USB2.0 Connection Cable Type A(90°) Plug to Type B Plug, Classic

Connector 1: USB-A 90° Plug moulded
Connector 2: USB-B Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5245SW.x	black



USB2.0 Extension Cable Plug Type A(90°) to Type A Jack, Classic

Connector 1: USB-A 90° Plug moulded
Connector 2: USB-A Jack moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5246SW.x	black



USB2.0 Connection Cable Type A Plug to Type B Plug, LSZH

Connector 1: USB-A Plug moulded
Connector 2: USB-B Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5203.x	black



USB2.0 Connection Cable Type A Plug to Type A Plug, black, LSZH

Connector 1: USB-A Plug moulded
Connector 2: USB-A Plug moulded

Stock Lengths: 0.5 - 1.0 - 1.8 - 3.0 - 5.0 m

Art.-No.	Colour
K5204.x	black



USB2.0 Active Extender Cable 10m / 20m

Active USB2.0 extension
 Thanks to the integrated amplifier, a stable USB2.0 HighSpeed speed is ensured
 Model IUSB-REP10TY: Cascadable up to 3x for a total length of 30m
 Plug and Play; Compatible with Windows and Mac
 Bus-Powered - (no external power supply required)

Art.-No.	Description
IUSB-REP10TY	USB2.0 Active Extension Cable, 10 m
IUSB-REP220TY3	USB2.0 Active Extender Cable, 20m



USB2.0 Repeater Cable Type A Jack to Typ A Plug (cascadable)

USB2.0 Extension cable 5m, active 1-port hub with 5 m cable
 USB-A receptacle to USB-A plug
 Max. 4 x cascadable (= 25 m)
 Integrated ASIC Chip as signal repeater/buffer
 Power supply via USB-interface

Art.-No.	Description
K5263.5V3	USB2.0 Repeater Cable 5m active, USB-A Jack to USB-A Plug



USB2.0 Extender via Twisted Pair 100 Meter

Supports the connection up to four devices up to a length of 100 meters by using one Cat.5e/6 patchcable
 Supports data transfer rates : 1,5/-12/-480 Mbps
 Compact design
 Plug & Play
 Software installation needed to use all functions
 Incl. software and power supply

Art.-No.	Description
EB2104	USB2.0 Extender Cat.5e/6 100m 4-Port, incl. PS



USB2.0 Desktop Extension

USB desktop extension cable, length 1.5 metres
 USB plug series A to USB socket type A
 USB socket series A moulded in plastic base
 Additional USB socket type A for power supply

Art.-No.	Description
EB438V2	USB desktop extension cable, 1.5m, bw, A plug/A socket



USB1.1 Extender up to 60m

Extends the range of barcode scanners, printers, digital cameras, keyboard / mouse and other USB devices from a USB-enabled computer via Cat. 5e / 6 cable
 Maximum length: up to 60 m
 Transmission speed: 12 Mbit/s
 Powered by bus - no external power supply required
 Supports Windows XP, Vista, 7, 8, 8.1, 10 ; Linux and Mac OS

Art.-No.	Description
IUSB-EXTENDY2	USB1.1 Extender up to 60m



IUSB2-HUB4-WHTY



IUSB2-HUB4-BKTY



4-Port USB2.0 Mini High Speed Hub

USB hub for connecting up to 4 USB devices with type A connector
 Ultra compact version
 USB2.0 transfer rates up to 480 Mbit/s
 Downward compatible with earlier versions of USB1.1
 Works with Windows and MacOS
 USB cable 0.4m included

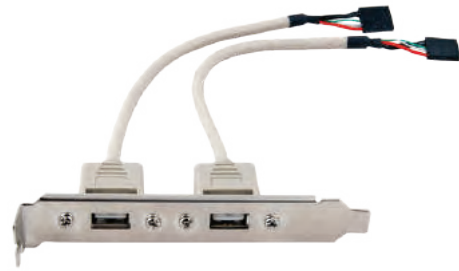
Art.-No.	Description
IUSB2-HUB4-WHTY	4-Port Mini High Speed Hub USB2.0, white
IUSB2-HUB4-BKTY	4-Port Mini High Speed Hub USB2.0, black



USB2.0 - RS232 Converter

USB A plug to DSub 9-pole plug, 1.8 metres
 Supports RS-232, DB9, DB25
 Connection of serial devices to USB
 Power supply via USB interface
 Chipset: FTDI-232RL
 With driver CD for Windows / Linux and Mac Systems
 Included in delivery: gender changer DB9 jack/DB25 plug

Art.-No.	Description
EB853C	USB2.0/RS232 Converter, USB Type A-Plug/DB9-Plug 1,8m



Internal USB-A Adapter Cable

Internal USB cable, length 0.2 m
 USB slot bracket with 2 x USB jacks Type A to 2 x 5 pole USB board connector (pitch 2.54)
 Interface adapter from USB controller to the housing

Art.-No.	Description
K5305.020V2	USB Slotbracket 2x USB Receptacle Series A to 2x 5pole board connector



USB Adapter Cable USB A Plug - Mini DIN 6pole Jack

USB plug type-A to MiniDIN 6 pole jack
 This adapter is only suitable for combination devices that have an integrated USB interface.

Art.-No.	Description
K5307.020	USB Adapter USB A - Mini DIN (6pole), M-F, beige



USB2.0 Y-cable, 1x USB B Plug / 2x USB A Plug

1 x USB-B plug to 2 x USB-A plug
 For additional power supply of USB devices that require up to 1A

Stock Lengths: 1.0 m

Art.-No.	Description
K5304.x	USB2.0 Y-Cabel, 1x USB-B Plug - 2x USB-A Plug, 1m, beige



USB2.0 Keystone Adapter

Installation depth: 32 mm
 Housing Material: Plastic
 For use in Keystone compatible frames

Art.-No.	Description
EB498V2	Keystone Snap-In Adapter USB2.0 A - A, white
EB527V2	Keystone Snap-In Adapter USB2.0 A - A, black
EB534	Keystone Snap-In Adapter USB2.0 A - B, black

**DISCOVER NOW:
 OUR 19" TABLET
 HOLDER
 IN THE CHAPTER
 NETWORK & SERVER
 CABINETS ON P.209.**

VIDEO COMPONENTS //



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SVGA/VGA	P. 295
KVM	P. 296
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// YOU MIGHT ALSO BE INTERESTED IN:

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RJ45 Patch Cable	P. 130



OVERVIEW VIDEO STANDARDS

HDMI

The currently best-known video interface is particularly popular with home users. Standard support for modern video resolutions, audio formats and functions that simplify the operation of domestic home theater systems make this interface a favorite of many users.

Standard	HDMI1.4	HDMI2.0	HDMI2.1
Published	2009	2013	2018
Name	High Speed HDMI	High Speed HDMI	Ultra High Speed HDMI
Max. Data rate	min. 10,2Gbit/s	min. 18Gbit/s	min. 48Gbit/s
Max. Resolution	4K 30Hz	4K 60Hz	4K 120Hz; 8K 60Hz; 10K 30Hz
HDR	no	no (supported with HDMI2.0a)	yes

DISPLAYPORT & MINI DISPLAYPORT

Less known than HDMI, but no worse is the DisplayPort standard and its more compact brother, the Mini DisplayPort. In terms of pure performance characteristics, it even has a higher capacity than HDMI. One of the great advantages of the DisplayPort connector is the locking option, making it a popular interface where DVI and VGA used to be standard. These properties and more make it popular in PC applications and in the industry.

Standard	DP1.2	DP1.4
Published	2009	2013
Max. Data rate	min. 17,28 Gbit/s	min. 25,92 Gbit/s
Max. Resolution	4K 60Hz	4K 120Hz, 8K 60Hz
HDR	no	yes

VIDEO OUTPUT OVER TYPE C (DP ALTERNATE MODE)

With the introduction of the Type C connector, we got another option for video transmissions. Its compact size makes it particularly attractive for use in mobile devices. Tablets, Smartphones and Notebooks can be equipped with an interface for modern video output without the devices losing their compact dimensions. The support of modern video standards is guaranteed by the DisplayPort Alternate Mode, which is based on the current DisplayPort standards.

Be it HDMI, DP, DVI or VGA, all Type-C Alternate Mode cables, adapters or docking stations with video output use the DP alternate mode to transmit the video signal. The properties of the DP Alternate mode are analogous to the normal DisplayPort standard. This means that you can also achieve a resolution of up to 8K at 60Hz with modern Type-C video cables.



USB Type C - DisplayPort Cable

Typ C to DisplayPort connection cable for connection between a USB Type C device like PC/Notebook/Tablet to a DisplayPort display
Supports DisplayPort1.2/1.4 Alternate and HDCP
Thunderbolt3 compatible

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
EBUSBC-DP12K.2	USB Type C - DP1.2 Cable, 4K60Hz	black
EBUSBC-DP14.2	USB Type C - DP1.4 Cable, 8K60Hz	black



USB Type C - HDMI Cable

Typ C to HDMI connection cable for connection between a USB Type C device like PC/Notebook/Tablet to a HDMI display
Supports DisplayPort1.2/1.4 Alternate and HDCP
Thunderbolt3 compatible

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
EBUSBC-HDMI-4K60K.2	USB Type C - HDMI Cable, 4K60Hz	black
EBUSBC-HDMI-4K30K.2	USB Type C - HDMI Cable, 4K30Hz	black
EBUSBC-HDMI-8K60K.2	USB Type C - DP1.4 Cable, 8K60Hz	white



USB Type C - DVI Cable, 1080P

Typ C to DVI connection cable for connection between a USB Typ C device like PC/Notebook/Tablet to a DVI display
Support DisplayPort1.2 Alternate mode with max 1080P resolution and HDCP
Thunderbolt 3 compatible

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
EBUSBC-DVIK.2	USB Type C - DVI Cable, 1080P	black



USB Type C - VGA Cable, 1080P

Type C to SVGA/VGA connection cable for connection between a USB Type C device like PC/Notebook/Tablet to a SVGA/VGA display
Support DP1.2 Alternate mode with max 1080P resolution
Thunderbolt 3 compatible

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
EBUSBC-VGAK.2	USB Type C - SVGA/VGA Cable, 1080P	black



EBUSBC-HDMI-4K60



EBUSBC-HDMI-8K60



USB Type C - HDMI Adapter

With the USB type C to HDMI adapter (DP alternate mode) you can connect a monitor with an HDMI port to the type C port of your PC / laptop / tablet. Supports the DP1.2 / 1.4 alternate mode with a max. Resolution of 4K60Hz Supports RGB / YCbCr 4: 4: 4 / YCbCr 4: 2: 2 / YCbCr 4: 2: 0, bit depth: 6bit , 8bit, 10bit, 12bit, HDR, HDCP
Thunderbolt3 compatible
USB bus powered (no external power supply)

Art. No.	Description	Colour
EBUSBC-HDMI-8K60	USB Type C - HDMI Cable, 8K60Hz	white
EBUSBC-HDMI-4K30	USB Type C - HDMI Cable, 4K30Hz	black
EBUSBC-HDMI-4K60	USB Type C - HDMI Adapter, 4K60Hz	black



USB Type C - DVI Adapter, 1080P

With the USB Type C to DVI adapter (DP Alternate mode) you can connect a monitor with a DVI port to the Type C port of your PC / laptop / tablet. Supports DisplayPort 1.2 Alternate mode Supports a maximum resolution of 1080P and HDCP
Thunderbolt3 compatible
USB bus powered (no external power supply)

Art. No.	Description	Colour
EBUSBC-DVI	USB Type C - HDMI Cable, 4K60Hz	black



EBUSBC-DP-4K60PD



EBUSBC-DP-8K60



USB Type C - DP1.4 Adapter, 8K60Hz

With the USB Type C to DisplayPort adapter (DP Alternate mode) you can connect a monitor with a DisplayPort port to the Type C port of your PC / laptop / tablet. Supports DisplayPort 1.2 or 1.4 alternate mode
Thunderbolt3 compatible
USB bus powered (no external power supply)

Art. No.	Description	Colour
EBUSBC-DP-8K30	USB Type C - DP1.4 Adapter, 8K60Hz	black
EBUSBC-DP-4K60	USB Type C - DP1.2 Adapter, 4K60Hz	white
EBUSBC-DP-4K60PD	USB Type C - DP1.2 Adapter, 4K60Hz, with Type C Charging Port	white



IADAP-USB31-VU31



IADAP-USB31-VGA



USB Type C - VGA Adapter, 1080P

With the USB Type C to SVGA / VGA adapter (DP Alternate mode) you can connect a monitor with SVGA / VGA port to the Type C port of your PC / laptop / tablet. Supports DP1.2 alternate mode with a maximum resolution of 1080P
Type C Charging Port for charging of other devices
Thunderbolt3 compatible
USB bus powered (no external power supply)

Art. No.	Description	Colour
IADAP-USB31-VGA	USB Type C - SVGA/VGA Cable, 1080P	white
IADAP-USB31-VU31	USB Type C - DVI Cable, 1080P	white



Ultra High Speed HDMI Kabel with Ethernet 8K 60Hz, with Premium Aluminium Connector

The new generation of HDMI-Cable with a bandwidth of up to 48Gbit.
Supports Features as Dynamic HDR, Dolby Vision und eARC. Also compatible to older HDMI standards.

Supports Ultra High Speed HDMI Video up to 8k 60Hz eg. 4K 120Hz resolution
Dynamic HDR, HDCP2.2, 3D, Ethernet Channel, eARC
Triple shielding: Foil + Braid + PIMF
Conductor material: Blank copper, Jacket: PVC
Gold plated HDMI™ plugs and contacts, Premium EFB Aluminium housing for excellent EMC shielding

Stock lengths: 1,0 - 2,0 m

Art. No.	Description	Colour
K5440HQSW.x	USB Type C - HDMI Cable, 4K60Hz	black



Ultra High Speed HDMI Cable with Ethernet 8K 60Hz

8K60Hz Ultra HD resolution
With Dynamic HDR, HDCP2.2, Dolby Vision und more.
Compatible to older HDMI specifications.
Three way shielding: Foil + Braid + PIMF
Conductor: Copper, Jacket: PVC
Gold plated HDMI plugs and contacts
Plug housing shielded and moulded

Stock lengths: 1,0 - 2,0 m

Art. No.	Description	Colour
K5440SW.x	Ultra HighSpeed HDMI™ Cable with Ethernet, 8K60Hz A-A, M-M	black



High Speed AOC HDMI Cable with Ethernet 4K 60Hz, HDMI over Fiber

Supports 4k60Hz UHD resolutions up to 100 meters
Thinner and lighter than conventional copper cable
No radiation, and highly resistant with EMI
No external power supply needed
One way signal transmission (plugs marked)

Stock lengths: 20,0 - 30,0 - 40,0 - 50,0 - 60,0 - 70,0 - 80,0 m

Art. No.	Description	Colour
K5431AOC.xV2	DisplayPort/DVI 24+1 Kabel, Full HD	black



High Speed HDMI Cable with Ethernet 4K 60Hz, Premium Certified

Supports High Speed HDMI Video up to Ultra HD 4k 60Hz resolution
Premium Certification with barcode with re-traceble number
Supports HDR, HDCP2.2, 3D, Ethernet Channel, ARC
Tripple shielding: Foil + Braiding + PIMF
Conductor: bare copper, Jacket: PVC
HDMI™ plugs and contacts gold, housing moulded

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 - 6,0 m

Art. No.	Description	Colour
K5431PRSW.x	HighSpeed HDMI™ Cable w. Eth. A-A, Premium cert., M-M	black



High Speed HDMI Cable with Ethernet 4K 60Hz

HDMI Double shielded: Foil + Braid
HDMI™ Plugs and contacts gold plated
Full HD - 3D up to 1080p and 4K2K
HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Art. No.	Description	Colour
K5431SW.x	HighSpeed HDMI™ Connection Cable with Eth. A-A, M-M	black



High Speed HDMI Connection cable with Ethernet 4K 30Hz

Supports video resolutions up to 4K 30Hz
 Shielding: foil + shielded pairs
 Conductor: CCS, Jacket: PVC
 HDMI™ plugs and contacts gold plated and moulded
 Cable length up to 15m
 Supported resolutions: Full HD@60Hz and 4K@30Hz
 HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Stock lengths: 0.5 - 1.0 - 2.0 - 3.0 - 5.0 - 7.0 - 10 - 15 m

Art. No.	Description	Colour
K5430SW.x	HighSpeed HDMI Connection cable with Ethernet 4K 30Hz	black



High Speed HDMI™ Cable with Ethernet Plug Type A - Plug Type A / 2 x Ferrite

Supports video resolutions up to 4K 30Hz
 HDMI Double shielded: Foil + Braid
 HDMI™ Plugs and contacts gold plated
 HEC: HDMI™ Ethernet Channel, ARC: Audio Return Channel

Both sides assembled with ferrite cores to dejam signals in the cable

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
K7904.xV2	HighSpeed HDMI™ Cable with Ethernet Plug Type A - Plug Type A / 2 x Ferrite	black



High Speed HDMI Cable with Ethernet to DVI24+1 Full HD

Supports a max. resolution of 1920 x 1080P / Full HD
 Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 HDMI™ plugs and contacts gold plated and moulded

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
K5432SW.x	HighSpeed HDMI Cable with Ethernet to DVI24+1 Full HD	black



Keystone Adapter HDMI™ A - A

Snap-In mounting (Keystone)
 Connecting adapter for HDMI cables
 2x HDMI connectors Type A
 Plastic housing
 Snap-in spring: plastic
 Recommended for distribution panels with key-tone breakout
 Not recommended for use in frame sets with angled outlet

Art. No.	Description
EB479V2	Keystone Snap-In Adapter HDMI A - A, white
EB520V2	Keystone Snap-In Adapter HDMI A - A, black



DVI 24+1 Dual Link Connection Cable

Cable for Digital Visual Interface
 Molex compatible
 Dual-Link + analog
 Suitable for resolutions up to 2560 x 1600

Stock lengths: 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Art. No.	Description	Colour
K5434.x	DVI 24+1 Dual Link Connection Cable	black



DVI/VGA 12+5 Connection Cable (analog)

DVI to VGA Cable
 For display devices with VGA interface

Stock lengths: 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
K5436.xV2	DVI/VGA 12+5 Connection Cable (analog)	black



DVI 24+1 Dual Link Industrial Connection Cable

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Tinned plugs and gold plated contacts, **housing with full-metal shielding and moulded, for ideal shielding characteristics in rough industrial environment.**

Both sides assembled with ferrite cores to dejam signals in the cable (for better EMC characteristics)

Dual link cable
 Support for resolution up to 2560 x 1600

Stock lengths: 2.0 - 3.0 - 5.0 m

Art. No.	Description
K5434IND.x	DVI 24+1 Dual Link Industrial Connection Cable

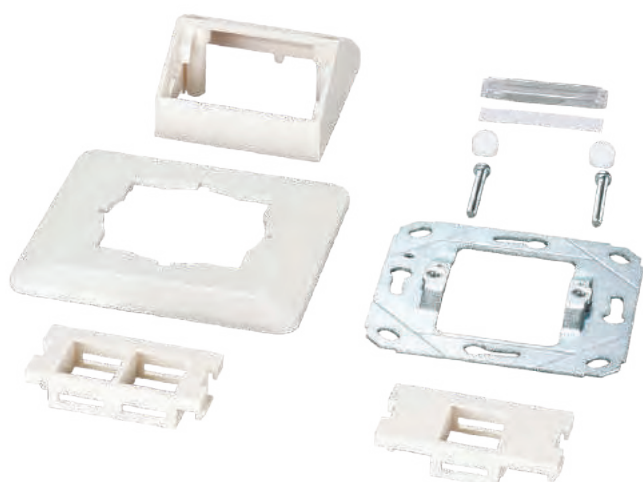


DVI 18+1 Single Link Connection Cable

Cable for Digital Visual Interface
 Molex compatible
 Single Link
 Suitable for resolutions up to 1920 x 1200

Stock lengths: 2.0 - 3.0 - 5.0 - 10 - 15 - 20 m

Art. No.	Description	Colour
K5433.x	DVI 18+1 Single Link Connection Cable	black



Multifunctional frame set with 1- and 2-port adapter

Multifunction frame set in signal white (RAL9003) for universal use, whether for RJ45 data connections, fiber optic connections, HDMI or Display Port connections for meeting rooms or data outlets for USB in keystone format. With the multifunctional frame set, you can cover all these areas with just one product.

The frame set is designed in such a way that it is possible to accommodate the various space requirements of cables and connectors during installation. Thus it is also possible to upgrade existing installations and bring them into a structured shape.

Scope of delivery (ET-25092):

- 1x frame set UP
- 1x 1-Port Adapter
- 1x 2-Port Adapter

Optional accessories (not included):

- Display Port Adapter (ET-25092.4)

Adapter frames for use with other switch ranges (Berker, Gira, Jung, Merten)

Art. No.	Description
ET-25092	Multifunctional frame set with 1- +2-port adapter Keystone Format(HDMI,USB,RJ45)
ET-25092.3	Multifunctional frame set without adapter for Keystone Format(HDMI,USB,RJ45)

Accessory

Art. No.	Description
ET-25092.4	Displayport Adapter for ET-25092 and ET-25092.3
ET-25092.1	1-Port Adapter for ET-25092.3 for Keystone Format(HDMI,USB,RJ45)
ET-25092.2	2-Port Adapter for ET-25092.3 for Keystone Format(HDMI,USB,RJ45)
ET-25092.8	Adapter frame for design compatibility to Gira, RAL9003
ET-25092.5	Adapter frame for design compatibility to Berker, RAL9003
ET-25092.6	Adapter frame for design compatibility to Jung, RAL9003
ET-25092.7	Adapter frame for design compatibility to Merten, RAL9003

YOU CAN FIND SUITABLE DVI AND HDMI ADAPTERS IN OUR ONLINE SHOP!





KEYSTONE DIVERSITY AT EFB-ELEKTRONIK

→ RJ45 Keystone Variants on page 116



HDMI Keystone Variants



EB479V2	HDMI A - A	white
EB520V2	HDMI A - A	black

USB 2.0 Keystone Variants



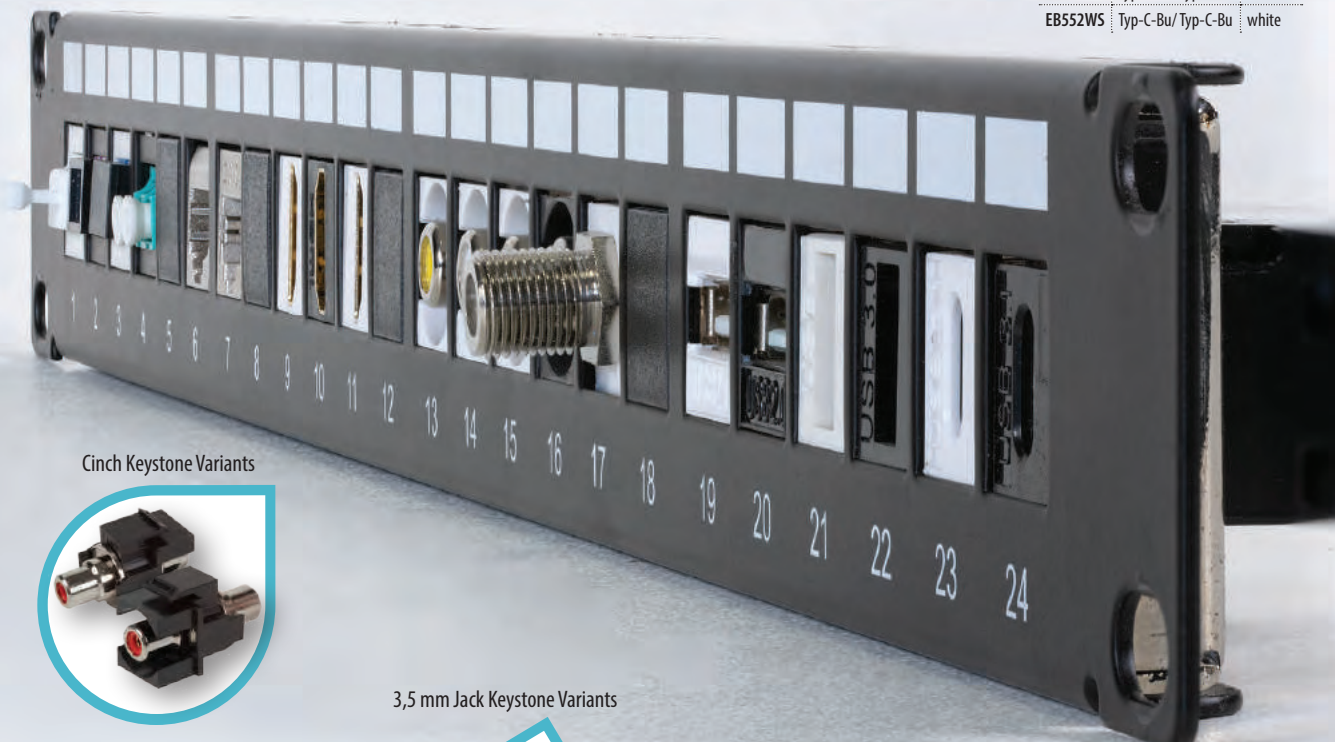
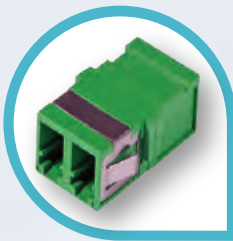
EB498V2	USB2.0 A - A	white
EB527V2	USB2.0 A - A	black
EB534	USB2.0 A - B	black

USB3.2/3.1 Type-C Keystone Variants, 10Gbit/s, 60W

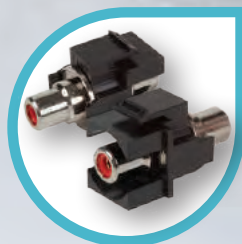


EB552	Typ-C-Bu/Typ-C-Bu	black
EB552WS	Typ-C-Bu/Typ-C-Bu	white

→ Fiber Optic Keystone Variants on page 092



Cinch Keystone Variants



EB493	Jack/Jack, red ring	white
EB494	Jack/Jack, white ring	white
EB495	Jack/Jack, yellow ring	white
EB522	Jack/Jack, red ring	black
EB523	Jack/Jack, white ring	black
EB524	Jack/Jack, yellow ring	black

3,5 mm Jack Keystone Variants



EB526	Jack/Jack	black
EB497	Jack/Jack	white

F-Connector Keystone Variants



EB539	F-Connector	white
EB540	F-Connector	black

USB 3.0 Keystone Variants



EB537V2	USB3.0 Type A - A	black
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DisplayPort Cable, 8K 120Hz

According to DisplayPort1.4 standard
 Resolution up to 8K Ultra HD (7680 x 420 @ 60Hz)
 Conform to HDCP2.2
 DisplayPort plugs and contacts gold plated
 Tripple shielding
 Conductor: bare copper, Jacket: PVC
 Pin 20: DP_PWR not connected

Housing with 360° shielding, moulded and DP lock

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m



Art. No.	Description
K5568SW.1	DisplayPort Cable,male-male, 1m, black, 8K120Hz



DisplayPort1.4 Cable 8K 60Hz

According to DisplayPort1.4 standard
 Resolution up to 8K Ultra HD (7680 x 420 @ 60Hz)
 Conform to HDCP2.2
 DisplayPort plugs and contacts gold plated
 Tripple shielding
 Conductor: bare copper, Jacket: PVC
 Pin 20: DP_PWR not connected

Housing with 360° shielding, moulded and DP lock

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m



Art. No.	Description	Colour
K5567SW.x	DisplayPort1.4 Cable 8K 60Hz,A-A M-M	black



DisplayPort1.4 Cable 8K 60Hz, with Premium Zinc-die-cast housing

Conform to DisplayPort v1.4 Standard
 Resolution up to 8K Ultra HD (7680 x 420 @ 60Hz)
 Conform to HDCP 2.2
Premium zinc-die-cast housing with full shielding and lockable
 Gold plated plugs and contacts
 Tripple shielding
 Conductor material: blank copper, Jacket: PVC
 Pin 20: DP_PWR nicht verbunden

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m



Art. No.	Description	Colour
K5567HQS.W.x	USB Typ C - DVI Kabel, 1080P	black



DisplayPort1.4 AOC Hybrid Cable 8K 60Hz

8K Fiber Optic DisplayPort cable for long length applications

Assembled with black tinned metal plug and DP laser imprint
 Supports resolutions up to 8K @ 60Hz or 4K @ 120Hz
 Supports a bandwidth of 32.4 Gbps
 Resistant to EMC

Stock lengths: 1,0 - 2,0 - 3,0 - 5,0 m

Art. No.	Description	Colour
ICOC-DSP-HY-0xx	DisplayPort1.4 AOC Hybrid Cable 8K 60Hz	black



DisplayPort 1.4 Extender cable 8K60Hz

For Extension of DisplayPort connection
 Compliant with DisplayPort v1.4 standard
 Resolutions up to 8K / Ultra HD (7680 x 420 @ 60Hz)
 Compliant with HDCP 2.2
 Triple shielding
 Conductor material: bare copper, jacket: PVC
 Gold-plated DisplayPort connectors and contacts
 Connector lockable

Stock lengths: 1,0 - 2,0 m

Art. No.	Description	Colour
K5569SW14.x	DisplayPort1.4 Cable 8K 60Hz,A-A M-M	black





DisplayPort 1.2 Cable 4K 60Hz, with Premium Zinc-die-cast housing

According to DisplayPort 1.4 standard Resolution up to 4K Ultra HD (4096 x 2160 @ 60Hz)
Premium zinc-die-cast housing with full shielding and lockable
 DisplayPort plugs and contacts gold plated
 Tripple shielding
 Conductor: bare copper, Jacket: PVC
 Pin 20: DP_PWR not connected

Stock lengths: 0.5 - 1.8 - 3.0 - 5.0 - 10 m

Art. No.	Description	Colour
K5560HQS.W.x	DisplayPort 1.2 Cable 4K 60Hz, M-M	black



DisplayPort 1.2 Cable 4K 60Hz

According to DisplayPort 1.4 standard Resolution up to 4K Ultra HD (4096 x 2160 @ 60Hz)
 DisplayPort plugs and contacts gold plated
 Tripple shielding
 Conductor: bare copper, Jacket: PVC
 Pin 20: DP_PWR not connected

Stock lengths: 0.5 - 1.8 - 3.0 - 5.0 - 10 m

Art. No.	Description	Colour
K5560S.W.x	DisplayPort 1.2 Cable 4K 60Hz, M-M	black



DisplayPort - HDMI Cable, 4K 60Hz

DisplayPort to HDMI Adapter cable with one sided signal way DisplayPort => HDMI output device
 Supports 4K @ 60Hz resolution
 Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated, HDMI side moulded, DP mounted with locking protection
 Pin 20: DP_PWR not connected

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
K5561HQS.W.x	USB Typ C - DP 1.2 Kabel, 4K60Hz	black



DisplayPort - HDMI Cable, Full HD

Supports Full HD - 3D up to 1080P
 Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated, HDMI side moulded, DP mounted with locking protection
 Pin 20: DP_PWR not connected

DisplayPort to HDMI Adapter cable with one sided signal way DisplayPort => HDMI output device

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
K5561S.W.x.V2	DisplayPort/HDMI Cable Full HD, M-M	black



DisplayPort/DVI24+1 Cable, Full HD

DisplayPort to DVI-I 24+1 adapter cable with one sided signal way DisplayPort => DVI-D 24+1 output device

Supports resolutions up to 1080P (Full HD)
 Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated, DVI side moulded, DP mounted with locking protection
 Pin 20: DP_PWR not connected

Stock lengths: 1.0 - 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
K5564S.W.x.V2	USB Type C - VGA Adapter, 1080P	black



DisplayPort Adapter, DP Male to HDMI™ A Female 4K 30/60Hz

Adapter to connect DisplayPort graphic controller to HDMI displays
 Supports 4k@30Hz resolution
 One sided signal way DisplayPort => HDMI output device
 DisplayPort v1.2 compliant
 Supports HDCP 1.3 and DPCP

Art. No.	Description	Colour
EB484-4K30	DisplayPort Adapter, DP male/ HDMI female 4K 30Hz	black
EB484-4K60	DisplayPort Adapter, DP male/ HDMI female 4K 60Hz	black



DisplayPort Adapter, DP Male to HDMI™ A Female Full HD

Adapter to connect DisplayPort graphic controller to HDMI displays
 Supports Full HD resolution
 One sided signal way DisplayPort => HDMI output device
 DisplayPort v1.2 compliant
 Supports HDCP 1.3 and DPCP

Art. No.	Colour
EB484	black



DisplayPort Adapter, DP Male to DVI-I 24+5 Female Full HD

Adapter for connecting DisplayPort graphics cards to HDMI/DVI monitors
One-sided signal direction: DisplayPort => DVI output device
 DisplayPort v1.1 compliant
 Supports HDCP 1.3 and DPCP

Art. No.	Colour
EB485V2	black



HDMI/DisplayPort Converter Cable 4K60Hz

For connecting a display with a Displayport interface to an HDMI device.
 Cable converter with HDMI plug and, DisplayPort socket for connecting with a Displayport cable.
 Max. Resolution: up to 4K @ 60Hz in 4: 4: 4 format
 HDMI: Supports 8/10/12-bit Deep Color, HDCP 1.4 / 2.2, HDR,

Art. No.	Colour
EB489	black



Mini-Displayport – Displayport Cable 4K 60Hz

DisplayPort v1.2 compliant
 Supports resolutions up to 2560 x 1600
 Supports HDCP 1.3 and DPCP
 Colour black
 Stock lengths: 1.0 - 2.0 - 3.0 m

Art. No.	Description	Colour
K5565SW.x	Mini-Displayport – Displayport Cable 4K 60Hz	black



Mini-Display Port 1.2 - HDMI Cable

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated, Plugs moulded
Mini-DisplayPort to HDMI Adapter cable with one sided signal way
Mini-DisplayPort => HDMI output device
 Supports Full HD - 3D up to 1080p
 For connection of apple device with TV or display
 Stock lengths: 1.0 m

Art. No.	Description	Colour
K5562.xV2	Mini-Display Port 1.2 - HDMI Cable	white



Mini DisplayPort - DVI Cable

Shielding: foil + braiding
 Conductor: bare copper, Jacket: PVC
 Plugs and contacts gold plated, Plugs moulded
Mini DisplayPort to DVI-D 24+1 Adapter cable with one sided signal way
Mini-DisplayPort => DVI-D 24+1 output device
 Supports resolution up to 1920 x 1200
 For connection of apple device with external display
 Stock lengths: 1.0 m

Art. No.	Description	Colour
K5563.x	USB Typ C - DP1.2 Adapter, 4K60Hz	white



Converter Mini DisplayPort Plug - HDMI™ Type A Jack

Adapter/converter Mini-DisplayPort 20-pin plug (Thunderbolt) to HDMI 19-pin jack
 Supports max resolution of 1080p (IADAP-MDP-HDMIF) or 4K 30Hz (IADAP-MDP-HDMIF12)

Art. No.	Description	Colour
IADAP-MDP-HDMIF	Converter - Mini-DisplayPort to HDMI, FullHD	white
IADAP-MDP-HDMIF12	Converter - Mini-DisplayPort1.2 to HDMI, 4K30Hz	white



Converter Mini DisplayPort Plug - DVI-I Jack

Adapter/converter Mini-DisplayPort 20-pin plug (Thunderbolt) to DVI-I jack
 Supports max resolution of 1080p

Art. No.	Description	Colour
IADAP-MDP-DVIF	Converter - Mini-DisplayPort to DVI, FullHD	white



Converter Mini DisplayPort Plug - VGA Jack

Adapter/Konverter Mini-DisplayPort 20-pin plug (Thunderbolt) to VGA jack
 Supports resolutions up to 1920x1200

Art. No.	Description	Colour
IADAP-MDP-VGAF2	Converter - Mini-DisplayPort 1.2 to VGA, FullHD	white



MiniDisplayPort 3-way Converter

Mini DisplayPort Multi Converter, 1 converter for HDMI, DVI, and DisplayPort devices.
Mini DisplayPort to HDMI, DVI-D 24+1 or DisplayPort converter with one sided signal way
Mini DisplayPort => HDMI, DVI-D 24+1, DisplayPort output device
 Supports resolution up to 1920 x 1200

Art. No.	Description
EB986	Mini-Display-Port 3-way Converter, FullHD



SVGA/HDTV Connection Cable

Double shielded display cable specially capable against outer interference
 75 Ohm, double-shielded, with 2 x ferrite cores
 With thumb screws, moulded, black
 Construction: 3 x coax RGB and 5 x control lines

Stock lengths: 1.8 - 3.0 - 5.0 - 7.0 - 10 - 15 - 20 - 25 - 30 m

Art. No.	Description	Colour
K5326SW.xV2	SVGA/HDTV Connection Cable	black



SVGA/HDTV Extension Cable

Double shielded display cable specially capable against outer interference
 75 Ohm, double-shielded, with 2 x ferrite cores
 With thumb screws, moulded, black
 Construction: 3 x coax RGB and 5 x control lines

Stock lengths: 1.8 - 3.0 - 5.0 - 7.0 - 10 - 15 - 20 m

Art. No.	Description	Colour
K5327SW.xV2	SVGA/HDTV Extension Cable	black



VGA Connection Cable

1:1 wired
 Shielded
 Moulded
 With thumb screws

Stock lengths: 2.0 - 3.0 - 5.0 - 10 m

Art. No.	Description	Colour
EK324.x	VGA Connection Cable	beige



VGA Extension Cable

1:1 wired
 Shielded
 Moulded
 With thumb screws

Stock lengths: 2.0 - 3.0 - 5.0 m

Art. No.	Description	Colour
EK322.x	VGA Extension Cable	beige



DVI-A 24+5 - HD-15 Adapter

Adapter for DVI and VGA (HD15)
 Moulded
 Gold plated contacts
 Screw 4-40#

Art. No.	Connection 1	Connection 2	Colour
EB460	DVI-I 24+5 Plug	HD-D-Sub 15-pole Jack	black
EB462	DVI-I 24+5 Jack	HD-D-Sub 15-pole Plug	black



19" KVM Switches Cat.5 with 19" LCD Consoles „DUAL RAIL“

KVM-Switch console with 19" LCD display for remote control of up to 256 or 512 PCs
 Multiplatform support: PS/2, USB, Win, Mac, Sun and terminal-based systems
 Supports up to 40 m cable length between KVM and PC or serial devices
 RJ45 ports for Cat.5e/6/7 based cables
 Firmware upgrade feature, Auto-scan mode
 Compact and slidable
 Dual Console - one additional console port for external console
 Dual Rail - display is depth adjustable
 Separately cascade port (Daisy Chain), cascadable with KH-1508/1516
 19"/1U rack mounting with adjustable mounting depth

Art. No.	Description
KL-1508AN	8-Port KVM Switch Cat.5 + Console 19"/1U with 19" LCD
KL-1516AN	16-Port Kvm Switch Cat.5 + Console 19"/1U with 19" LCD

Accessory

Art. No.	Description
KA-9140	Serial/VT100 CPU Module for KH- and KL-types
KA-7570	VGA-USB KVM Connection module for KH- and KL-types
KA-7168	HDMI-USB KVM-Connection cable for KH-KL-Types
KA-7169	DP-USB KVM-Connection cable for KH-KL-Types



Aten KVM Switch Cat.5 19"/1U

KVM-Switch console for remote control of up to 256 or 512 PCs
 Separately cascade port (Daisy Chain)
 K1508AI/1516AI with additional RJ45 port for IP access
 Multiplatform support: PS/2, USB, Win, Mac, Sun and terminal-based systems
 Supports up to 40 m cable length between KVM and PC or serial devices
 RJ45 ports for Cat.5/6/7 based cables
 Firmware upgrade feature, auto-scan mode
 Daisy Chain port for daisy-chain with KH-1508/1516
 19"/1U rack mounting

Art. No.	Description
KH-1508A	8-Port KVM Switch Cat.5 19"/1U, Adapter ID
KH-1516A	16-Port KVM Switch Cat.5 19"/1U, Adapter ID
KH-1508AI	8-Port KVM IP Switch 19"/1U KVM over IP, Dual Bus
KH-1516AI	16-Port KVM IP Switch 19"/1U KVM over IP, Dual Bus

Accessory

Art. No.	Description
KA-9140	Serial/VT100 CPU Module for KH- and KL-types
KA-7570	VGA-USB KVM Connection module for KH- and KL-types
KA-7168	HDMI-USB KVM-Connection cable for KH-KL-Types
KA-7169	DP-USB KVM-Connection cable for KH-KL-Types
CL-1000M-AT-GG	Slideaway Console 17", PS/2 with german keyboard



Aten 8-/16-Port KVM Switch + 17" LCD Console

KVM-Switch console with 17" LCD display for remote control of up to 256 or 512 PCs
 Firmware upgrade feature, Auto-scan mode
 Compact and slidable
 Dual Console - Additional port for one external console USB/PS/2
 1 external USB port for a external USB mouse and USB1.1 peripherals
 Separately cascade port (Daisy Chain), cascadable with ACS-1208A, ACS-1216A
 19"/1U rack mounting with adjustable depth

Art. No.	Description
CL-5708M	8-Port KVM Switch PS2 + Console 19"/1U with 17" LCD
CL-5716M	16-Port KVM Switch PS2 + Console 19"/1U with 17" LCD

Accessory

Art. No.	Description
2L-1701	Cascading-Cable for KVM 1.8m
2L-1705	Cascading-Cable for KVM 5.0m
2L-5202P	KVM PS/2 Cable 1.8m
2L-5203P	KVM PS/2 Cable 3.0m
2L-5206P	KVM PS/2 Cable 6.0m
2L-5202UP	KVM USB Cable 1.8m
2L-5203UP	KVM USB Cable 3.0m
2L-5206UP	KVM USB Cable 6.0m



Aten 17" LCD PS/2 Console

KVM console plus 17" LCD display in compact, slideable design
 19"/1U rack mounting with adjustable depth
 Included : 1 x 2L-5202P (KVM-PS2-Cable), 1 x standard-mounting-kit

Art. No.	Description
CL-1000M-AT-GG	Slideaway Console 17", PS/2 with german keyboard



KVM Switch USB, HDMI

KVM-Switch for remote control of multiple PC's with HDMI (display) and USB (mouse/keyboard) interfaces
 Switching between PC's with front button or hotkeys
 Supports resolutions of 4K / 30Hz and PC UXGA 1920x1200
 Supports Dolby TrueHD and DTS HD Master audio formats
 HDMI v1.4 - & HDCP-compatible
 Metalhousing for better EMC shielding

Included: 1x HDMI KVM-USB Switch, 1 x power supply, 2x or 4x HDMI A male & USB 2.0 A male to HDMI A male & USB 2.0 B male cable, short manual

Art. No.	Description
IDATA-KVM-HDMI2U	KVM Switch USB, HDMI, 4K, 2 ways
IDATA-KVM-HDMI4U	KVM Switch USB, HDMI, 4K, 4 ways



KVM-Switch, DisplayPort, USB-Hub, Dual-View

KVM Switch for switching between 2/4 PCs with DisplayPort interface, to control 2/4 PCs with one Keyboard/Mouse, Monitor Set.
 Supports Dual View projection for 2 displays.
 Max. resolution 3840x2160 @ 30Hz (4K)
 Integrated 2-Port-Hub for shared USB2.0 devices
 Supports Dolby True HD and DTS HD Master Audio Formats
 Hotkey and Key-Switching

Included: 1x 2/4-Port DisplayPort1.2 Dual-View KVM-Switch, 1x Manual, 1x Power Supply 5V/2A

Art. No.	Description
IDATA-DP-KVM2	KVM Switch DP 1.2, 2 Port, Dual-View, with USB-Hub
IDATA-DP-KVM4	KVM Switch DP 1.2, 4 Port, Dual-View, with USB-Hub



2-Port Mini-Cable-KVM Switch HDMI/VGA/DVI/DP

For remote control of 2 PCs with VGA/HDMI/DVI or DisplayPort (depending on choice of type) and USB interface
 With full audio support
 Connection of an Additional USB2.0 device possible
 LEDs for status display
 Remote button for port selection, Auto-scan mode

Art. No.	Description
EB977	2-Port KVM VGA-USB-Audio with cable sets 2x 0,9m
EB978	2-Port KVM DVI-USB-Audio with cable sets 2x 0,9m
EB979	2-Port KVM HDMI-USB-Audio with cable sets 2x 0,9m
EB973V2	2-Port DisplayPort-USB-Audio with cable sets 2x 0,9m



KVM Extender Set HDMI-USB-Audio, up to 60m

KVM Cat.5e/6 RJ45 Extender Set for remote control of PCs with HDMI (display) and USB(mouse/keyboard) interface.
 Max. transmission distance of up to 60m
 Transmission of uncompressed 1080p @ 60Hz HDMI-Signal over 1x 5e / 6-Networkcable
 With integrated microphone and 3,5 mm audio jack
 Power over Cable: Only 1 power supply necessary, Receiver unit gets power over the network cable.
 With additional HDMI out at Transmitter unit.

Included: KVM Extender Set, 1 power supply, quick manual

Art. No.	Description
IDATA-HDMI-KVM60	HDMI-KVM Extender over CAT5



KVM Extender Set HDMI-USB, up to 120m

KVM Cat.5e/6 RJ45 Extender Set for remote control of PCs with HDMI (display) and USB (mouse/keyboard) interface.
 Max. transmission distance of up to 120m
 Max. resolution of 1080p @ 60Hz over 1x 5e / 6-network cable

Included: KVM Extender Set, 1 power supply, quick manual

Art. No.	Description
IDATA-HDMI-KVM2	HDMI KVM Extender over Network Cable, 120m



Aten KVM Extender Set VGA-USB, up to 150m

Extends the VGA-USB console port of a PC or KVM switch
 Category 5/6/7 RJ45 cable up to 150 m for the remote console
 Operation via local or remote console
 Automatic signal compensation

Included: 1 x cable set USB 1.8 m, 1 x 19" mounting kit, 2 x power supply

Art. No.	Description
CE-700A	KVM Extender Set VGA - USB , RJ45



KVM Extender Set DVI-USB-Audio - USB2.0 Hub, up to 50m

KVM Cat.5/6 RJ45 Extender up to 50 m
 1-Port USB2.0 Hub to connect external USB devices
 Controlling via remote console

Included: 1 x DVI-D Cable plug/plug 1m, 1 x USB2.0 Cable A-B 1m, 1 x USB A power supply cable 1m, 1 x power supply, 1 x EB963 Transmitter, 1 x EB963 receiver, 1 x User manual

Art. No.	Description
EB963	KVM Extender Set DVI USB Transmitter + Receiver



HDMI HDBaseT Extender 4K30Hz up to 100m

HDMI™ Extender with HDBaseT extend technology
 Uncompressed video and audio signal over 1 x Cat.5/6/6a network cable
 Support for resolutions up to UltraHD (4Kx2K, Full HD 1080P@60Hz, 3D)
 Extend the video signal over one network cable up to 100 m
 Support bi-directional IR pass back
 Support HDCP, CEC, 24 deep color, uncompressed LPCM audio and compressed DTS-HD, Dolby True HD
 Without PoH/PoC function

Included: HDBaseT Extender Set (Transmitter/Receiver), 2 x IR cable, 2 x power supply, quick manual

Art. No.	Description
HDBT-100V2	HDBaseT Extender up to 100m, over RJ45, 4k

Accessory

Art. No.	Description
K5537GR.x	RJ45 Patch cable S/FTP, Cat.6A, PVC, UL, Longlink, grey
K9201.90	Cat.6A/classEA Installation link, S/FTP, 90m on drum
88035AV.1	RJ45 Connector STP, Cat.6A, Field-Plug
E-20070	INFRALAN® RJ45 Keystone STP, Cat.6A, 500MHz, Komponenten zertifiziert
K5525GR.x	RJ45 Patchkabel S/FTP, Cat.6A, Cat.7 Rohkabel, grau



HDMI Extender Set, 4K 60Hz, 1x RJ45 up to 50m

HDMI 4K Extender Set, extends your HDMI signal with at least 1x Cat.6- cable up to 50 m with a resolution of 4K 60Hz
 With local HDMI out on transmitter unit
 Supports HDCP 2.2, Dolby True HD, DTS HD, IR Passback, EDID Passback

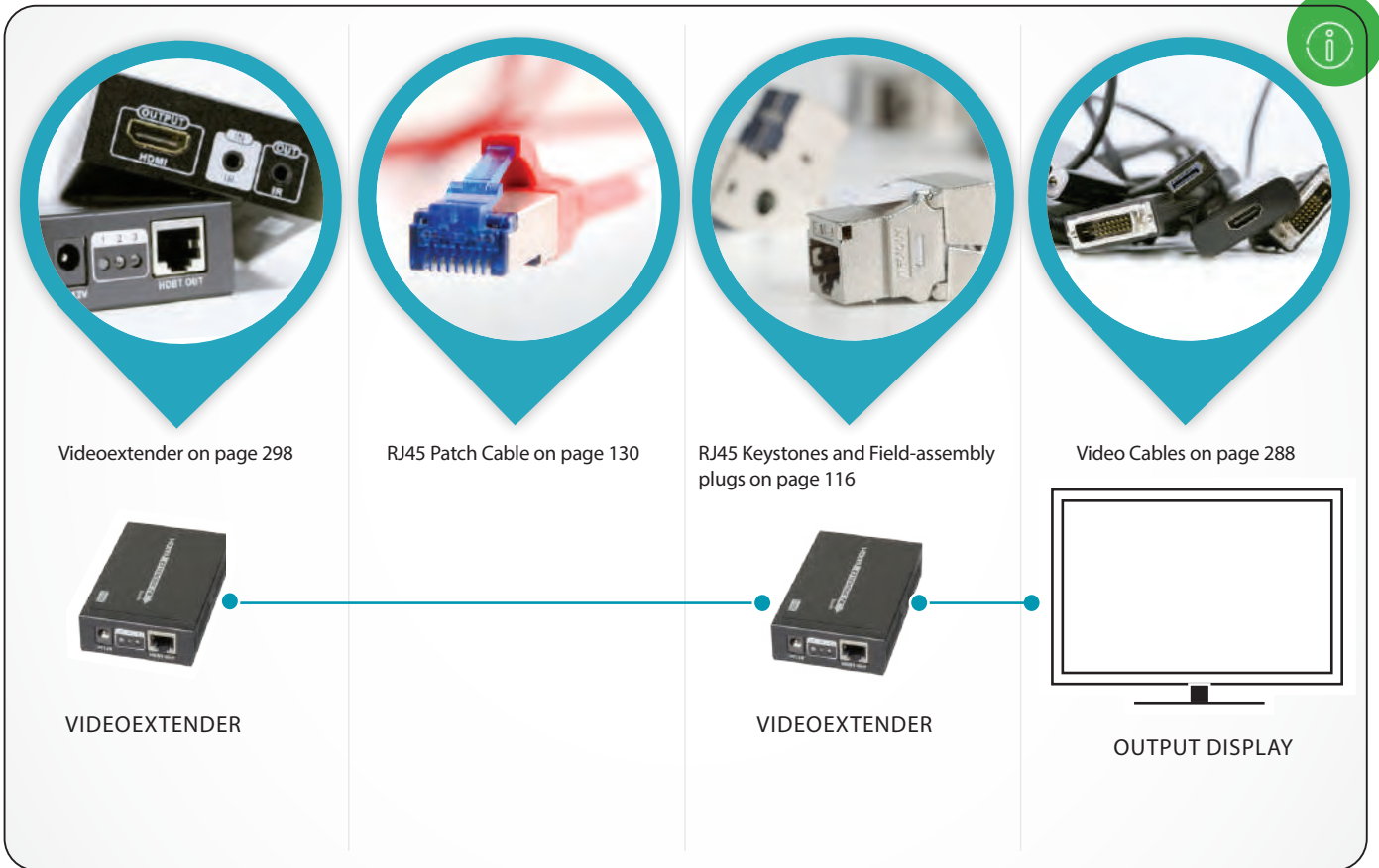
Art. No.	Description
IDATA-EXT-E70-4K2	HDMI Extender 4K UHD Cat. 6/6A/7, up to 60m



HDMI HDBitT 4K Extender Set over IP up to 120m

Extends the HDMI-Signal over CAT5 / 5e / 6 Cable up to 120m
 Max. resolution 4K 30Hz
 Signal can be extend and splittet with a network switch or router
 Compatible with HDMI 1.4 and HDCP 1.4

Art. No.	Description
IDATA-EXTIP-3834KV4	HDBitT 4K HDMI Extender Transmitter/Receiver over IP with IR, 120m





HDMI Extender over Cat.6/6a/7, max. 30m

HDMI Extender Set for up to 30m over 2x Cat.5e/6 cable
 Extender with assembled cables
 Max. resolution up to 1080p (1920 x 1080)

Art. No.	Description
IDATA-EXT-E30D	HDMI Extender over CAT6/6a/7 with cable 30m



HDMI Extender by Cat.6/6A/7, max. 40m

Extends the HDMI signal by using 1x Cat.5e/-6 cable up to a length of 40 m
 Max. resolution up to 1080p (1920 x 1080)
 Supports HDCP1.2, Dolby True HD, DTS HD Master Audio
 Plug & Play

Art. No.	Description
IDATA-EXT-E70S	HDMI Extender by Cat.6/6A/7, max. 40m



HDMI Extender over CAT6/6a/7, up to 60m

HDMI Extender Set for up to 60m over 1x Cat.5e/6/6a network cable
 Max. resolution up to 1080p (1920 x 1080)

Art. No.	Description
IDATA-EXT-E70	HDMI Extender over CAT6/6a/7, up to 60m



HDMI Extender with IR over RJ45, up to 60m

Extends the HDMI and infrared signal by using 1x Cat.5e/-6 patchcable up to a length of 60 m
 Max. resolution up to 1080p (1920 x 1080)
 Supports HDCP1.3, Dolby True HD, DTS HD Master Audio
 Plug & Play

Art. No.	Description
IDATA-EXT-E70I	HDMI Extender with IR over RJ45, up to 60m



HDMI Extender Cat.5e/6 120m

HDMI Extender Set for up to 120m over 1 x Cat. 6/6A network cable
 Max. resolution up to 1080p (1920 x 1080)

Art. No.	Description
IDATA-EXT-E71	HDMI Extender Cat.5e/6 120m



VGA- and Audio-Extender Set over Cat. 5/5e/6 (300m)

VGA Extender over Cat.5e/6 cable up to 300m
 Transmission distance: 1920x1200 (10m); 1600x1200 (100m); 1280x1024 (200m)
 VGA tuning via manual switch

Included in delivery: VGA Extender Set, power supply, user manual

Art. No.	Description
IDATA-EX-DL344	VGA- and Audio-Extender Set over Cat.5e/6 (300m)

Accessory

Art. No.	Description
IDATA-EX-DL45	Receiver for VGA Extender DL344/DL252 over Cat.5e/6 (300m)



VGA Extender/Audio-/Video-Splitter Cat. 5e/6 - Transm. 4 x RJ45, 300m

VGA Extender Set with 4 port splitter over Cat.5e/6 cable up to 300m
 Transmission distance: 1920x1200 (10m); 1600x1200 (100m); 1280x1024 (200m)
 VGA tuning via manual switch

Included in delivery: VGA Extender Set, power supply, user manual

Art. No.	Description
IDATA-EX-DL252	VGA Extender/Audio-/Video-Splitter Cat. 5e/6 - Transm. 4xRJ45, 300m

Accessory

Art. No.	Description
IDATA-EX-DL45	Receiver for VGA Extender DL344/DL252 over Cat.5e/6 (300m)



Video/VGA Extender-Set up to 150m

VGA Extender over Cat.5e/6 cable up to 150m
 Transmission distance: 1920x1200 (30m); 1600x1200 (100m); 1280x1024 (150m)
 Simultaneous operation of local and remote monitor
 VGA tuning via 16 x coding switch

Included in delivery: 1 x cable set VGA 1.8 m, 2 x power supply

Art. No.	Description
VE-150L/R	Video/VGA Extender-Set Up to 150m



HDMI Switch 4X1 Quad Multi-Viewer

HDMI 4x1 switch for 4 HDMI sources, scalable, dimensionable and for output on a single Full HD display for multi viewing
Seamless switching
Supports switching over buttons, IR control and RS232 control
Compatible to HDMI 1.3a and HDCP 1.2

Included in delivery: HDMI 4x1 multi-viewer with seamless switch, power supply 5V / 2A, user manual, remote control

Art. No.	Description
IDATA-HDMI-41MV	HDMI Switch 4X1 Quad Multi-Viewer



HDMI Matrix 4 IN - 2 OUT, 4K, UHD, 3D

Matrix switch for up to 4x HDMI sources and 2x HDMI displays
Possibility of switching between all inputs and outputs
Max. resolution 4K 30Hz
Enables easy switching between the sources via the remote control or the buttons on the device
HDCP-compliant

Included in delivery: Matrix IDATA-HDMI-MX42, remote control (battery included), power supply 5V / 3A , Audio R / L + SPDIF audio cable, screws for wall mounting, extender IR receiver, manual

Art. No.	Description
IDATA-HDMI-MX42	HDMI Matrix 4 IN - 2 OUT 4K, UHD, 3D



HDMI Matrix 6x2, 4K, UHD, 3D

Matrix switch for up to 6x HDMI sources and 2x HDMI displays
Possibility of switching between all inputs and outputs
Max. resolution 4K 30Hz
Enables easy switching between the sources via the remote control or the buttons on the device
HDCP-compliant

Included in delivery: 1x HDMI 6x2 Matrix Switch, Power Supply 5V / 2A, remote control, manual

Art. No.	Description
IDATA-HDMI-H62	Switch Matrix HDMI 6x2 4K UHD 3D



HDMI Switch 4K, UHD, 3D

HDMI 3/5-Port Switch
Max. resolution: 4K 30Hz
Supports HDCP, HD Audio, Dolby True HD
Incl. power supply

Art. No.	Description
IDATA-HDMI-4K31	HDMI Switch 4K, UHD, 3D, 3 way
IDATA-HDMI-4K51	HDMI Switch 4K, UHD, 3D, 5 way



HDMI Bi-Directional Switch 2Port, 4K 60Hz

Switch and Splitter in one device
Switch the HDMI signal between 2 displays, or show the same signal on 2 displays.
Max. resolution 4K60Hz

Art. No.	Description
IDATA-HDMI-22BI2	HDMI Bi-Directional Switch 2-Port 4K 60Hz



HDMI Switch 4K 60Hz HDR

HDMI 3/5-Port Switch
Max. resolution: 4K 60Hz
Supports HDR and YUV 4: 4, HDCP2.2, HD Audio, Dolby True HD
Incl. power supply

Art. No.	Description
IDATA-HDMI2-4K3160	HDMI Switch 4K60Hz HDR 3-Port
IDATA-HDMI2-4K5160	HDMI Switch 4K60Hz HDR 5-Port



HDMI Splitter 4K 60Hz, UHD, 3D

HDMI 2/4/8-Port Splitter
Max. resolution: 4K 60Hz
Supports HDCP2.2, HD (HBR) Audio, Dolby True HD etc.
Incl. power supply

Art. No.	Description
IDATA-HDMI2-4K2	HDMI Splitter 4K 4 Port, 4K2K 60Hz
IDATA-HDMI2-4K4	HDMI Splitter 4K 4 Port, 4K2K 60Hz
IDATA-HDMI2-4K8	HDMI Splitter 4K 8 Port, 4K2K 60Hz



HDMI Splitter 4K60Hz, HDR

HDMI 2/4/8-Port Splitter
Max. resolution: 4K 60Hz
Supports HDCP2.2, HDR, HD (HBR) Audio, Dolby True HD etc.
Incl. power supply

Art. No.	Description
IDATA-HDMI2-4K2HDR	HDMI Splitter 4K 4 Port, HDR, 4K2K 60Hz
IDATA-HDMI2-4K4HDR	HDMI Splitter 4K 4 Port, HDR, 4K2K 60Hz
IDATA-HDMI2-4K8HDR	HDMI Splitter 4K 8 Port, HDR, 4K2K 60Hz



VIDEO SWITCH APPLICATION



VIDEO SPLITTER APPLICATION



SERIAL & PARALLEL CABLE & ADAPTER //



D-Sub Cable	P. 303
Serial Adapter	P. 304
D-Sub Plugs & Jacks	P. 304
D-Sub Cover	P. 305
Ribbon Cables & Accessories	P. 306
Hook & Loop Cable Tie	P. 308
Coaxial Cable	P. 310
BNC Plug, Jack and Cable	P. 311

// YOU MIGHT ALSO BE INTERESTED IN:

KVM

P. 296



Data Cable DSub 9pol., Plug - Plug

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 9 Plug
Type of connector connection 2:D-Sub 9 Plug

Stock on lengths: 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Description
EK129.x	Data Cable DSub 9pol., Plug - Plug



Data Cable DSub 9pol., Plug - Jack

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 9 Plug
Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Description
EK131.x	Data Cable DSub 9pol., Plug - Jack



Data Cable DSub 9pol., RS232, Jack - Jack

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 9 Jack
Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 2,0 - 3,0 - 5,0 m

Art.-No.	Description
EK152.x	Data Cable DSub 9pol., RS232, Jack - Jack



Laplink Serial Cable

Pinning: 1-4, 2-3, 3-2, 4-1, 5-5, 7-8, 8-7, 9-9, S-S. Shielded. Mounted.

Type of connector connection 1:D-Sub 9 Jack
Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 1.8 - 3.0 m

Art.-No.	Description
EK143.x	Laplink Cable Serial 3.0m



Zero Modem Cable

Pinning 1-7, 1-8, 2-3, 3-2, 4-6, 5-5, 6-4, 7-1, 8-1, S-S. Shielded type. Mounted.

Type of connector connection 1:D-Sub 9 Jack
Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 2.0 m

Art.-No.	Description
K5166.x	Zero Modem Cable



Data Cable DSub 15 pol., X.21, Plug - Jack

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 15 Plug
Type of connector connection 2:D-Sub 15 Jack

Stock on lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Description
K5129.x	Data Cable DSub 15 pol., X.21, Plug - Jack



Data Cable DSub 15 pol., X.21, Plug - Plug

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 15 Plug
Type of connector connection 2:D-Sub 15 Plug

Stock on lengths: 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Description
K5139.x	Data Cable DSub 15 pol., X.21, Plug - Plug



Data Cable Dsub 25 pol., RS232 V.24, Plug - Plug

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 25 Plug
Type of connector connection 2:D-Sub 25 Plug

Stock on lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Description
EK137.x	Data Cable Dsub 25 pol., RS232 V.24, Plug - Plug



Data cable DSub 25pol., Plug-Jack RS232 V.24

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 25 Plug
Type of connector connection 2:D-Sub 25 Jack

Stock on lengths: 1,0 - 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Description
EK165.x	Data cable DSub 25pol., Plug-Jack RS232 V.24



Serial Cable for Laser Printer

Pinning: 1-4, 2-2, 3-3, 4-5, 4-6, 5-7, 6-20, 8-20. Shielded type. Mounted.

Type of connector connection 1:D-Sub 25 Plug
Type of connector connection 2:D-Sub 9 Jack

Stock on lengths: 3.0 - 5.0 m

Art.-No.	Description
EK150.x	Serial Cable for Laser Printer 3.0m



Data Cable DSub 37pol., Plug - Jack

Pinning: 1:1. With long thumb screws. Shielded. Moulded.

Type of connector connection 1:D-Sub 37 Plug
Type of connector connection 2:D-Sub 37 Jack

Stock on lengths: 2,0 - 3,0 - 5,0 m

Art.-No.	Description
K5186.x	Data Cable DSub 37pol., Plug - Jack



RS232 Adapter Cable, 9pol. jack - 25pol. plug

Pinning 1-8, 2-3, 3-2, 4-20, 5-7, 6-6, 7-4, 8-5, 9-22, S-S. Shielded. Mounted.

Type of connector connection 1:D-Sub 9 Jack
Type of connector connection 2:D-Sub 25 Plug

Stock on lengths: 0.25 - 2.0 - 3.0 m

Art.-No.	Description
EK125.x	RS232 Adapter Cable, 9pol. jack - 25pol. plug



Mouse/-Keyboard Cable, PS/2

Pinning: 1:1. Shielded. Moulded.

Stock on lengths: 2,0 - 3,0 - 5,0 - 10 m

Art.-No.	Description
EK318.x	PS2 Connection Cable, 2x PS/2, M-M, beige
EK323.x	Mouse/-Keyboard Extension Cable, 2x PS/2, M-F, beige



IBM-PS/2 Mouse/Keyboard Adapter

Shielded, Moulded

Art.-No.	Description
EK560.030V2	IBM-PS/2 Mouse/Keyboard Adapter



USB-A-Jack/Mini-DIN6 Plug

Adapter for USB-A Jack to PS2 (Mini-Din6) Plug

Art.-No.	Description
EB439	Adapter, USB-A to Mini Din 6, F-M



Adapter DSub 9pol. Jack - DSub 25pol. Plug

Interface adapter 9pole to 25pole. Furthermore the adapter can also be used to connect two cable.

Art.-No.	Description
EB914	Adapter, DSub 9 to DSub 25, F-M, beige
EB914F	Adapter, DSub 9 to DSub 25, M-F, beige



Mini Gender Changer DSub 9pol Plug-Plug

For adapting of Dsub connections.

Art.-No.	Typ	
EB410	D-Sub 9	plug-plug
EB410MF	D-Sub 9	plug-jack
EB411	D-Sub 9	jack-jack
EB412	D-Sub 15	plug-plug
EB413	D-Sub 15	jack-jack
EB414	D-Sub 25	plug-plug
EB414MF	D-Sub 25	plug-Jack
EB415	D-Sub 25	Jack-Jack
EB418	HD-D-Sub 15	plug-plug
EB419	HD-D-Sub 15	plug-Jack
EB420	HD-D-Sub 15	Jack-Jack



DSub Solder Plugs / Jacks

Tin-plated housing
Quality level III >= 50 mating cycles

DSub Solder Plugs

Art.-No.	Type	Pins	PU
28653.1	EDS 09 LL /Z	9	50
28656.1	EDS 15 LL /Z	15	50
28661.1	EDS 25 LL /Z	25	50
28664.1	EDS 37 LL /Z	37	40
28667.1	EDS 50 LL /Z	50	40

DSub Solder Jacks

Art.-No.	Type	Pins	PU
28603.1	EDF 09 LL /Z	9	50
28606.1	EDF 15 LL /Z	15	50
28611.1	EDF 25 LL /Z	25	50
28614.1	EDF 37 LL /Z	37	40
28617.1	EDF 50 LL /Z	50	40



HD-DSub Solder Plugs / Jacks

Tin-plated housing
Quality level III >= 50 mating cycles

HD-DSub Solder Plugs

Art.-No.	Type	Pins	PU
34504.1	E-HDS 15 LL/Z	15	50
34509.1	E-HDS 26 LL/Z	26	50
34505.1	E-HDS 44 LL/Z	44	50
34506.1	E-HDS 62 LL/Z	62	40

HD-DSub Solder Jacks

Art.-No.	Type	Pins	PU
34501.1	E-HDF 15 LL/Z	15	50
34510.1	E-HDF 26 LL/Z	26	50
34503.1	E-HDF 62 LL/Z	62	40



DSub Plugs / Jacks 90° angled

Quality level III, UNC 4-40 bolts
PushFit snap-in fastening element

DSub plugs 9.4 mm, 90° angled, EURO

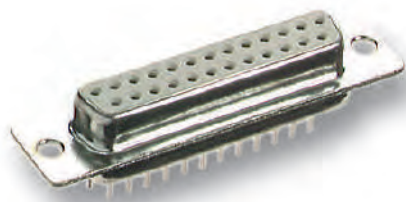
Art.-No.	Type	Pins	PU
29259.1	E-DS 09A/KG-T1	9	100
34706.1	E-DS 15A/KG-T1	15	70

DSub jacks 9.4 mm, 90° angled, EURO

Art.-No.	Type	Pins	PU
34701.1	EDF 09 A/KG-T1	9	100
34702.1	EDF 15 A/KG-T1	15	70
34703.1	EDF 25 A/KG-T1	25	50

DSub jacks 7.2 mm, 90° angled, USA

Art.-No.	Type	Pins	PU
29226.2	EDF 09A-KGT2	9	100



DSub plugs /Jacks for print mounting

Punched contacts
Quality level III >= 50 mating cycles

DSub plugs for print mounting

Art.-No.	Type	Pins	PU
28753.1	EDS 09 PP	9	50
28756.1	EDS 15 PP	15	50
28759.1	EDS 25 PP	25	50
28762.1	EDS 37 PP	37	40

DSub jacks for print mounting

Art.-No.	Type	Pins	PU
28703.1	EDF 09 PP	9	50
28706.1	EDF 15 PP	15	50
28709.1	EDF 25 PP	25	50
28712.1	EDF 37 PP	37	40



DSub Crimp Housing for plugs

Tin-plated housing
Quality level III >= 50 mating cycles

DSub Crimp Housing for plugs

Art.-No.	Type	Pins	PU
34606.1	E-DSCR/09	9	50
34607.1	E-DSCR/15	15	50
34608.1	E-DSCR/25	25	50
34609.1	E-DSCR/37	37	40
34610.1	E-DSCR/50	50	40

DSub Crimp Housing for jacks

Art.-No.	Type	Pins	PU
34601.1	E-DFCR/09	9	50
34602.1	E-DFCR/15	15	50
34603.1	E-DFCR/25	25	50
34604.1	E-DFCR/37	37	40
34605.1	E-DFCR/50	50	40



DSub plugs / jacks, IDC contacts, flat, UNC thread, for Flat Cable

Quality level III >= 50 mating cycles
UNC thread

DSub connector, insulation displacement connector, flat, with UNC thread

Art.-No.	Type	Pins	PU
29065.1	EDSF 09 LP1111/Z UNC	9	90
29066.1	EDSF 15 LP1111/Z UNC	15	50
29067.1	EDSF 25 LP1111/Z UNC	25	50

DSub jacks, IDC contacts, flat, UNC thread

Art.-No.	Type	Pins	PU
29015.1	EDFF 09 LP1111/Z UNC	9	90
29016.1	EDFF 15 LP1111/Z UNC	15	70
29017.1	EDFF 25 LP1111/Z UNC	25	40
29018.1	EDFF 37 LP1111/Z UNC	37	30



DSub Plugs /Jacks, IDC Contacts, flat version, for Flat Cable

Quality level III >= 50 mating cycles

DSub connector, IDC contacts, flat version

Art.-No.	Type	Pins	PU
29060.1	EDSF 09 LP1111/Z	9	50
29061.1	EDSF 15 LP1111/Z	15	50
29062.1	EDSF 25 LP1111/Z	25	50
29063.1	EDSF 37 LP1111/Z	37	40

DSub jacks, IDC contacts, flat version

Art.-No.	Type	Pins	PU
29010.1	EDFF 09 LP1111/Z	9	90
29011.1	EDFF 15 LP1111/Z	15	50
29012.1	EDFF 25 LP1111/Z	25	50
29013.1	EDFF 37 LP1111/Z	37	40



DSub Tools

Art.-No.	Description
39913.1	DSub Crimping tool, for AWG18-22 and AWG24-30
39914.1	D-SUB Releasing tool

Crimp Contacts

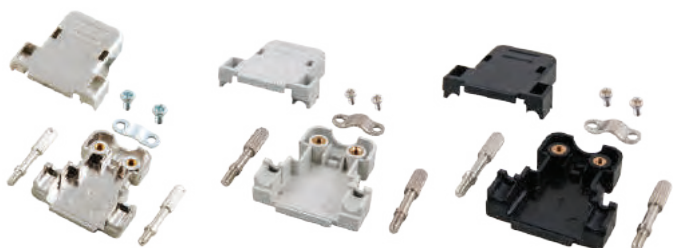
Art.-No.	Description
34612.1	Crimp contacts E-CRIF/28/100/B100-Bag
34616.1	Crimp contacts E-CRIF/28/0 10.000-drum



UNC 4-40 Bolt and Nut-Sets

ESV - U/K set of nuts with UNC 4-40 thread

Art.-No.	Description	PU
29311.1-100	UNC4-40 Bolt Set with nut, nickel plated	1
29313.1	UNC4-40 Nut-Set ESV-U/K (set=2)	2



Plastic Cover E-DH, 180° Cable Outlet

Plastic housing, incl. thumb screws
With snap fastener

Art.-No.	Type	Material	Colour	PU
29417.1	E-DH 09	plastic	metalized/silver	50
29522.1	E-DH 15	plastic	metalized/silver	50
29414.1	E-DH 25	plastic	metalized/silver	50
29416.1	E-DH 09	plastic	grey	50
29521.1	E-DH 15	plastic	grey	50
29415.1	E-DH 09	plastic	black	50
29520.1	E-DH 15	plastic	black	50
29412.1	E-DH 25	plastic	black	50



Plastic Cover Flip-Top, black, 180° Cable Outlet

Individually packed with complete accessories
With long thumb screws

Art.-No.	Type	Material	Colour	PU
29475.1	E-FT 09/SCH	plastic	black	50
29477.1	E-FT 15/SCH	plastic	black	50
29484.1	E-FT 25/SCH	plastic	black	50



Full Metal Cover E-DTZK, 180° Cable Outlet

With long thumb screws
Incl. boots for cable diameters 4 - 6 mm, 6 - 8 mm, 8 - 10 mm

Art.-No.	Type	Material	Colour	PU
29446.1	E-DTZK 9-K	zinc die-cast	silver	100
29447.1	E-DTZK 15-K	zinc die-cast	silver	100
29448.1	E-DTZK 25-K	zinc die-cast	silver	100
29449.1	E-DTZK 37-K	zinc die-cast	silver	100



Full Metal Cover E-MHDM, 180° Cable Outlet

Full metal housing 180° cable outlet, Thumb screws UNC 4-40,
for cable diameter up to 13.0 mm,
Attenuation: > 40 dB between 30 MHz and 1 GHz
Incl. HF shielded boots for cable diameters
4 - 6 mm, 6 - 8 mm, 8 - 10 mm, 6 - 8 mm, 8 - 10 mm

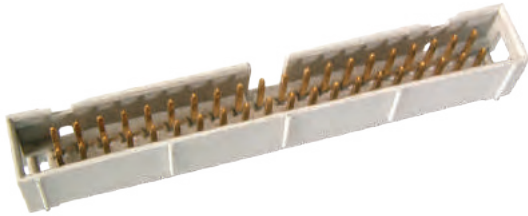
Art.-No.	Type	Material	Colour	PU
29470.1	E-MHDM 09-K	zinc die-cast	silver	50
29471.1	E-MHDM 15-K	zinc die-cast	silver	50
29472.1	E-MHDM 25-K	zinc die-cast	silver	50
29473.1	E-MHDM 37-K	zinc die-cast	silver	20



Interface Cover, Empty

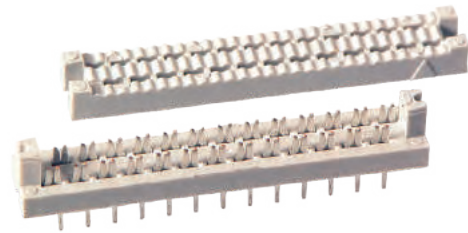
- Used for making own adapters
- Plastic, metallized

Art.-No.	Type	Material	Colour	PU
EB0909	DSub 9pol./DSub 9pol.	plastic	grey	1
EB0909M	DSub 9pol./DSub 9pol.	metalized plastic	metalized/silver	1
EB0925	DSub 9pol./DSub 25pol.	plastic	grey	1
EB1515M	DSub 9pol./DSub 25pol.	metalized plastic	metalized/silver	1
EB2525	DSub 25pol./DSub 25pol.	plastic	grey	1
EB2525M	Dsub 25pol./Dsub 25pol.	metalized plastic	metalized/silver	1



IDC Plug Connectors, pitch 2.54

Art.-No.	Type	PU
20410.1	E-WH 10pol.	270
20414.1	E-WH 14pol.	250
20416.1	E-WH 16pol.	230
20420.1	E-WH 20pol.	180
20426.1	E-WH 26pol.	140
20434.1	E-WH 34pol.	130
20440.1	E-WH 40pol.	120



IDC Circuit Board Connectors, pitch 2.54

Art.-No.	Type	PU
22010.1	E-WLP 10pol.	900
22014.1	E-WLP 14pol.	600
22016.1	E-WLP 16pol.	600
22020.1	E-WLP 20pol.	420
22026.1	E-WLP 26pol.	360
22034.1	E-WLP 34pol.	300
22040.1	E-WLP 40pol.	300



IDC Connectors RM2.54

With strain relief

Art.-No.	Type	PU
20006.3	E-WP 06pol.	264
20008.3	E-WP 08pol.	216
20010.3	E-WP 10pol.	192
20014.3	E-WP 14pol.	144
20016.3	E-WP 16pol.	132
20020.3	E-WP 20pol.	108
20026.3	E-WP 26pol.	84
20034.3	E-WP 34pol.	60
20040.3	E-WP 40pol.	60
20050.3	E-WP 50pol.	48
20064.3	E-WP 64pol.	36



Flat Cables, pitch 1.27

AWG28/7

Grey with identifier core (red)

30.5 m rolls

Individual wires, tin-plated

Art.-No.	Number of conductor
22310B.30R	10
22314B.30R	14
22316B.30R	16
22320B.30R	20
22326B.30R	26
22334B.30R	34
22340B.30R	40
22350B.30R	50



IDC Connectors, pitch 2.00

IDC Connector, pitch 2.00. For flat cable 92944.30R

Art.-No.	Description	PU
30044.1	IDC Connector, pitch 2.00 E-WP 44-pole	60



Flat Cables, pitch 1.00

AWG28/7

Grey with identifier core (red)

30.5 m rolls

Individual wires, tin-plated

Art.-No.	Number of conductor
92944.30R	44



Ring Core Ferrite, square

For round cable and retrofitting
With plastic housing for fold-up

Art.-No.	max. Cable diameter
71503.1	6.5 mm
71506.1	10.0 mm
71508.1	13.0 mm



Ring Core Ferrite, round

For round cable and retrofitting
With plastic housing for fold-up

Art.-No.	max. Cable diameter
71501.1	3.5 mm
71502.1	5.0 mm
71503.2	7.0 mm
71504.1	7.5 mm
71505.1	9.5 mm
71506.2	10.0 mm



Flat Core Ferrite

For ribbon cable

Art.-No.	Width	Depth	Height
71512.1	18.9 mm	12 mm	6.5 mm
71516.1	33.5 mm	12 mm	6.5 mm
71510.1	40 mm	12 mm	6.5 mm



Boots, up to 8.5 mm

Grommets for LIYCY control cable

Art.-No.	Cable diameter	Colour
29509.1	6.0 mm	black
29511.1	6.0 mm	grey
29508.1	8.5 mm	black
29510.1	8.5 mm	grey



Centronics Plugs 90°

Centronics connector and hood, full metal. Manual solder type. Matching cable 99500.1.

Art.-No.	Description
34231.1	Centronics Plug 90° E-57/50M0, solder type



Mini-DIN plug, black

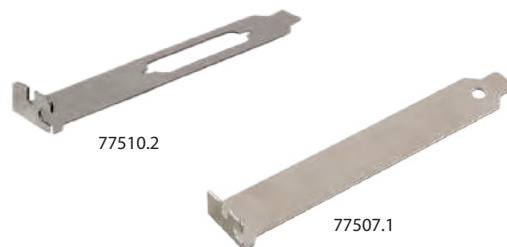
Mini-DIN plug with strain relief for direct assembling. Matching LYCY cable. (90004.1, 90006.1, 90008.1)

Art.-No.	Description
34816.1	Mini-DIN-Plug 8-pole ED-DIO-M/08 with strain r.



Jumper, pitch 2.54

Art.-No.	Typ
33904.1	EKSP/G black closed
33907.1	EKS/G black, open



Bracket

Art.-No.	Description
77507.1	Bracket without mounting hole
77510.2	Bracket 1xDSub9



Cable Ties

Cable tie 100 x 2.5 mm, 100 pieces

Art.-No.	Length	Width	Colour
81022.100	100 mm	2.5 mm	transparent
81041.100	165 mm	2.6 mm	transparent
81043.100	140 mm	3.5 mm	transparent
81044.100	200 mm	3.6 mm	transparent



Cable Ties with Marking Surface

Marking surface 25 x 8 mm Tensile force: 8 kg, Material: PA 6.6 natural Content: 100 pcs. per bag.

Art.-No.	Length	Width	Colour
81132.100	100 mm	2.5 mm	transparent



Cutting Tool for Cable Ties, for Cable Tie from 2.5mm

Assembly Tool

Art.-No.	Description
39916.1	Cutting Tool for cable ties for 2.5mm and thicker



Hook-and-Loop Cable Tie, black

Perfect bundling for all kinds of cables
Toolfree and stressfree for any cable type
Recommended especially for fiber optic cables
Resolvable without problems at any time
With slot
Hook-and-loop cable ties in 10 pieces bag

Art.-No.	Length	Width	Colour
KB12-130B	130 mm	12 mm	Black
KB12-160B	160 mm	12 mm	Black
KB12-230B	230 mm	12 mm	Black



Hook & Loop Tie 25m, black

Robust construction and extra strong adhesion
Reusable
Hook and strip material: Polyamide
Colour: black
25 m on rolls

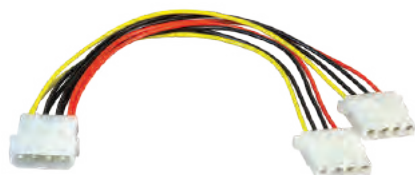
Art.-No.	Length	Width	Colour
81150.25	25000 mm	20 mm	Black



Hook and Loop Tie, 20mm, black, 25m roll, ultra-thin

Ultra slim construction
Reusable
Hook and strip material: Polyamide
Colour: black
25 m on rolls

Art.-No.	Length	Width	Colour
KB20-2500B	25000 mm	20 mm	Black



HDD Y-Power Cable

Internal power adapter cable for ATA drives. 1 x 5.25" plug to 2 x 5.25" socket.

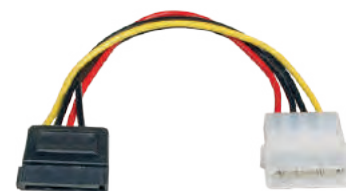
Art.-No.	Description
EK319	HDD Power Cable, 5,25" to 2x 5,25", M-2x F, 0,2m



SATA Y-Power Cables with Latch

Internal Y-power adapter cable for SATA drives. 1 x 5.25" (4-pole) plug to 2 x 15-pole SATA plug.

Art.-No.	Description
K5345.015	SATA Y-Power Cable, 1x5,25" to 2xSATA150 (w.clip), M-2x M, 0,15m



SATA Power Cables with Latch

Internal power adapter cable for SATA drives. 1 x 5.25" (4-pole) plug to 1 x 15-pole SATA plug.

Art.-No.	Description
K5385.015	SATA Power Cable, 5,25" to SATA 15 (w. clip), M-M, 0,15m



Coaxial Cable Thin Wire RG58 C/U, double shielded

Coaxial Thin Wire RG58 cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 50 Ohm.

Shielding : Tinned copper braiding & aluminum foil

Drum sizes in metres: 100.0 - 1000.0

Art.-No.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91258.x	CU, tinned	cellular PE	braiding CU, tinned	PVC grey, Ø0.12



Coaxial Cable RG58 C/U, 50 Ohm

Coaxial cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 50 Ohm. Also available as UL type. (91058.xUL)

Drum sizes in metres: 100.0 - 1000.0

Art.-No.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91058.x	CU, tinned	Fully-PE	braiding CU, tinned	PVC black, Ø0.12



Coaxial Cable RG174, 50 Ohm

Flexible Coaxial cable with small diameter for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 50 Ohm.

Drum sizes in metres: 100.0 - 1000.0

Art.-No.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91074.x	CCS	Fully-PE	braiding CU, tinned	PVC black, Ø0.12



Coaxial Cable RG59 B/U, 75 Ohm

Coaxial cable for high frequent measured data and signals defined characteristic impedance and tight production tolerances in 75 Ohm.

Drum sizes in metres: 100.0 - 500.0 - 1000.0

Art.-No.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91059.x	Fe-CU	Fully-PE	braiding CU, tinned	PVC black, Ø0.15



Video Cable RG59, 75 Ohm

Coax Cable RG59, 75 Ohm, PVC Green

Drum sizes in metres: 100.0 - 500.0 - 1000.0

Art.-No.	Inner conductor material	Dielectric	Outer conductor material	Material outer sheath
91259.1	CU, tinned	Fully-PE	braiding CU, tinned	PVC green, Ø0.12



Stripping Tool RG58/59/62

Stripping Tool for stripping of RG58/59/62 coaxial cable

Art.-No.	Description
52536.2	Stripping Tool for BNC RG58/59/62



Crimping Tool RG58/59/62

Crimping tool for RG58/59/62 coaxial connector

Art.-No.	Description
52535.2	BNC Crimping Tool for BNC RG58/59/62



BNC Boots

Strain relief boots for BNC crimp plugs
Colours: .1=black .2=red .3=blue .4=green

Art.-No.	Cable diameter	Min. inner diameter	PU
52527.x	BNC connector	5.0 mm	5.0 mm
52529.x	RG59/62	6.5 mm	6.5 mm
52537.x	BNC connector	2.8 mm	2.8 mm

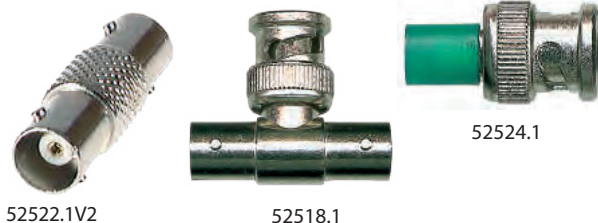


BNC Patch Cable

Pre-assembled RG59 coaxial cable for high frequent measured data and signals

Stock on lengths: 1,0 - 2,0 - 3,0 m
other lengths from own manufacturing

Art.-No.	Description
K8300.xV2	Coax Cable RG58 C/U 50 Ohm 2x Plugs straight
K8360.xV2	Coax Cable RG59 75 Ohm 2x Plugs straight



BNC Adapter

Art.-No.	Type	PU
52522.1	Adapter, 50 Ohm Jack - Jack	100
52523.1	Adapter, 75 Ohm Jack - Jack	100
52518.1	T-Adapter Jack/Plug/Jack RG 58, 50 Ohm	100
52519.1	T-Adapter Jack/Plug/Jack RG59/62, 75 Ohm	100
52524.1	Terminator, 50 Ohm	100



BNC Crimp Plugs, straight

Art.-No.	Type	PU
52500.1	RG 58, 50 Ohm	50
52500.2	RG 58 PTFE Dielectricum, 50 Ohm	50
52502.1	RG 59/62, 75 Ohm	50
52576.1	RG 174, 50 Ohm	50
52583.1	RG 179B/U, 75 Ohm	100
52497.1	BNC Connector for Video Cable 0.6/2.8, 75 Ohm	100



BNC Crimp Plugs, angled, crimp/solder type

The Core will be soldered.
The braiding together with the sleeve crimped.

Art.-No.	Type	PU
52506.1	RG 58, 50 Ohm	50



BNC Crimp Jacks, straight

Art.-No.	Type	PU
52509.1	RG 58, 50 Ohm	50
52511.1	RG 59/62, 75 Ohm	50
52501.1	RG 174, 50 Ohm	50
52533.1	RG 179, 75 Ohm	50



BNC Receptacle

Art.-No.	Type	PU
52514.1	RG 58, with out ground isolation, 50 Ohm	50
52515.1	RG 59/62, with out ground isolation, 75 Ohm	50
52554.1	RG 58, with ground isolation, 50 Ohm	50
52581.1	RG 59/62, with ground isolation, 75 Ohm	50



BNC Receptacle Type

Art.-No.	Type	PU
52574.1	BNC Panel Jack Solder type 50 Ohm, w/o ground isolation	100
52594.1	BNC Panel jack Print mounting 50 Ohm, 90°	50



BNC Single-Hole Adapter Jack/Jack

With ground insulation.
For panel mounting.

Art.-No.	Type	PU
52553.1	RG 58, 50 Ohm	50
52580.1	RG 59/62, 75 Ohm	50

// FOR A POWERFUL NETWORK

ACTIVE NETWORK COMPONENTS

1 NETWORK SWITCHES // P. 314

2 NETWORK MEDIA CONVERTER // P. 318

5 TRANSCEIVER & TRANSCEIVER CABLE // P. 330



ACTIVE INDUSTRIAL COMPONENTS

// P. 326

4

POE DEVICES // P. 322

3

ICON LEGEND // ACTIVE NETWORK COMPONENTS



1 Gbit
Transmission
Speed



10 Gbit
Transmission
Speed



Power over
Ethernet +

NETWORK SWITCHES //



Managed Switches	P. 315
Unmanaged Switches	P. 316
Fast Ethernet Switches	P. 317

// YOU MIGHT ALSO BE INTERESTED IN:

Fiber Optic Jumper Cable	P. 79
RJ45 Patch Cable	P. 130
19" Network & Server	P. 184
Optical Transceiver	P. 330



GEL-5261



Level1 Managed Gigabit Ethernet Switches

19" Gigabit Ethernet Switches with Management Functions
 Web Smart Switches with Web Management to Control Standard Network Functions
 Layer 2 Switches with SNMP, WEB, Telnet and Management
 Layer 2 Features: IPv6, Multicast, VLAN, Virtual Stacking, Autonegotiation, Auto MDI/MDIX and more
 Layer 3 Lite Switches additionally with IPv4/IPv6 Static Routes, IGMP v1/v2, Proxy Functions
 Including 19" Angle

SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.

19" Gigabit Ethernet Managed Switches with PoE

Art. No.	Management	10/100/1000 Mbps RJ45 Ports	1G Combo RJ45/SFP Ports	1G SFP Ports	Max. PoE power in W
GEP-2681	L3 Lite	24	2		185
GEP-2682	L3 Lite	24	2		370
GEP-1061	L2	8		2	125
GEP-2651	Web Smart	24	2		185

19" Gigabit Ethernet Managed Switches

Art. No.	Management	10/100/1000 Mbps RJ45 Ports	1G Combo RJ45/SFP Ports	1G SFP Ports	10G SFP+ Ports
GEL-5261	L2	48			
GEL-2861	L2	24			
GTL-2881	L3 Lite	24			2
GTL-2882	L3 Lite		2	22	2
GEL-1061	L2	8		2	
GES-2451	Web Smart	24	4		
GEL-1051	Web Smart	8			



FOS-5126



CTS L2 Managed Gigabit Ethernet Switches

The FOS series is your ticket to the world of fiber optics. The switches of the FOS series are robust stable access switches with a flexible configuration adapted to their application. Due to the high performance, a good and documented management, the FOS switches are the ideal helpers to network your fiber optic lines.

- 1G SFP and 10G SFP+ ports for fiber optic connection
- Dual speed SFP ports with automatic adjustment to fiber optic speed
- IP4/IPV6 support
- Dual firmware image, never again fear of broken firmware
- Optimized for IPTV streaming
- 19" brackets included, 10" brackets also included in FOS-31** Variants



FOS-3114

SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.

Art. No.	Management	1G Combo RJ45/SFP Ports	1G SFP Ports	10G SFP+ Ports
FOS-3110	L2	2	8	
FOS-3114	L2		14	
FOS-3128	L2	4	24	
FOS-3148	L2	4	44	
FOS-5126	L2	4	20	2

TOP SELLER ★★★



19" Unmanaged Gigabit Ethernet Switch

With Autonegotiation, Auto MDI/MDIX, Diagnostic LEDs
19" Mounting brackets included
Metal housing with fan
(L x W x H): 440 x 180 x 44 mm

Art. No.	Description
GSW-2457	24-Port Gigabit Ethernet Switch
GSW-1657	16-Port Gigabit Ethernet Switch



19" Unmanaged Gigabit Ethernet PoE+ Switch

Up to 30W per Port, IEEE-802.3af / at PoE compliance and Automatic PoE detection
19" Mounting brackets included
Metal housing

Art. No.	Description
GEP-1621	16-Port Gigabit Ethernet PoE+ Switch (240W)
GEP-1622	16-Port Ethernet Gigabit PoE+ Switch (480W)
GEP-1021	10-Port-Gigabit Ethernet-PoE+ Switch, 2x GE SFP, (250W)
GEP-0821	8-Port Gigabit Ethernet PoE+ Switch (123.2W)
GEP-0822	8-Port Gigabit Ethernet PoE+ Switch (240W)



8-Port Gigabit Ethernet Desktop Switch

Compact design for desktop or wall mounting
Autonegotiation, Auto MDI/MDIX
Diagnostic LEDs
incl. power supply
Plastic housing fanless
(L x W x H): 75 x 137 x 25 mm

Art. No.	Description
GEU-0822	8-Port Gigabit Ethernet Switch, 8 x 10/100/1000Mbps

TOP SELLER ★★★



Gigabit Ethernet Desktop Switch „Black Edition“

Compact Black Edition design for desktop or wall-mountable housing
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Power supply included
Plastic housing fanless
(L x W x H): 160 x 90 x 29 mm

Art. No.	Description
GSW-0507	5-Port Gigabit Ethernet Desktop Switch „Black Edition“
GSW-0807	8-Port Gigabit Ethernet Desktop Switch „Black Edition“



5-Port Gigabit Ethernet Desktop Switch, ultrakompact

Ultra compact design
Full-duplex
Autonegotiation and Auto-MDI/MDIX
Incl. Power Supply
Plastic housing fanless
(L x W x H): 89 x 86 x 23 mm

Art. No.	Description
GEU-0522	5-Port Gigabit Ethernet Desktop Switch



5-Port Gigabit Ethernet Desktop Switch incl. 1x GE SFP

Compact Switch with 1G SFP Fiber Port
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Plastic housing fanless
(L x W x H): 130 x 77 x 24 mm

Art. No.	Description
GEU-0521	5-Port Gigabit Ethernet Switch, 4x RJ45, 1x GE SFP



5-Port-Gigabit Ethernet PoE+ Desktop Switch

PoE ports according to IEEE-802.3 af/at and PoE Auto-detect
Max. power for PoE: 65W, up to 30W per Port
Metal housing
(L x W x H): 160 x 122 x 44 mm

Art. No.	Description
GEP-0522	5-Port-Gigabit Ethernet-PoE-Switch, (65W)

SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.

ACTIVE COMPONENTS



19" Fast Ethernet Switch

Plug & Play
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
19" brackets included
Metal housing fanless
(L x W x H): 440 x 180 x 44 mm

Art. No.	Description
FSW-1650	16-Port Fast Ethernet Switch
FSW-2450	24-Port Fast Ethernet Switch



19" 50-Port Fast Ethernet Switch, 2x GE SFP/RJ45

50x Fast Ethernet Ports + 2x Gigabit SFP/RJ45 Combo Slots
Full/Half-Duplex
Autonegotiation, Auto-MDI/MDIX
19" Mounting brackets included
Metal housing 1 fan
(L x W x D): 440 x 230 x 44 mm

Art. No.	Description
FGU-5021	50-Port Fast Ethernet Switch + 2 GE SFP/RJ45 Combo Ports



Desktop Fast Ethernet PoE+ Switch

PoE: IEEE-802.3af / at PoE compliance
PoE+ up to 30W per port with Auto-PoE detection
Features: Autonegotiation, Auto MDI/MDIX
Internal power supply
19" Mounting brackets included
Metal housing
(L x W x H): 280 x 185 x 44 mm

Art. No.	Description
FEP-0811	8-Port Fast Ethernet PoE+ Switch (120W)
FEP-0811W250	8-Port Fast Ethernet PoE+ Switch (250W)



Desktop Fast Ethernet Switch, magnetic

Compact design with magnetic base
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Incl. power supply
Plastic housing fanless
(L x B x H): 127 x 70 x 28 mm

Art. No.	Description
FSW-0508TX	5-Port Fast Ethernet Switch, ultracompact
FSW-0808TX	8-Port Fast Ethernet Switch, ultracompact



Desktop 5-Port Fast Ethernet Switch, ultracompact

5-Port Fast Ethernet Switch
Plug & Play
Full/Half-Duplex, Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Incl. power supply
Plastic housing fanless
(LxBxH): 89 x 86 x 23 mm

Art. No.	Description
FEU-0512	5-Port Fast Ethernet Switch



Desktop 4-Port Fast Ethernet Switch with SC Duplex FO Port

4x Fast Ethernet Port
1 SC-Port 100BaseFX fiber multimode up to 2 km via 50µ or 62.5µ fibre
Autonegotiation and Auto MDI/MDIX
Diagnostic LEDs
Plastic housing fanless (LxBxH): 164 x 100 x 26 mm

Art. No.	Description
FEU-0511	4-Port Fast Ethernet Switch + 1xFO Multimode SC Port

**NOT FOUND WHAT YOU ARE
LOOKING FOR?**

YOU WILL FIND AN EVEN LARGER SELECTION OF
SWITCHES IN OUR ONLINE SHOP!



MEDIA CONVERTER //



EFB Media Converter	P. 319
CTS Media Converter	P. 320
Levelone Media Converter	P. 321

// YOU MIGHT ALSO BE INTERESTED IN:

Fiber Optic Jumper Cable	P. 076
RJ45 Patch Cable	P. 130
Field Installable RJ45-Plug	P. 158
Optical Transceiver	P. 330



EL027V2



EL022V2



EL031

SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.



EFB Media Converter

- Single use or in Chassis (EL0CH1)
- Media converter for RJ45 to FO via MGBIC (EL029)
- or mode change from SM to MM, MM to SM via 2 x MGBICs (EL031)
- Autonegotiation and Auto MDI/MDI-X
- Diagnostic LEDs
- External power supply included
- Metal housing (L x B x H): 94 x 71 x 26 mm

Fast Ethernet Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
EL022V2	10/100TX	ST 100FX	MM	2000 m
EL023V2	10/100TX	SC 100FX	MM	2000 m
EL025V2	10/100TX	SC 100FX	SM	10000 m

Gigabit Ethernet Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
EL027V2	10/100/1000T	SC 1000SX	MM	550 m
EL028V2	10/100/1000T	SC 1000LX	SM	10000 m
EL029	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-
EL031	-	2 x MGBIC 1000Mbit/s	MM or SM	-



19" Rack Chassis for Media Converter (Basic)

- Up to 14 converter can be inserted or replaced in running operation (hot-swappable)
- Supports Ethernet, Fast Ethernet, Gigabit, Singlemode and Multimode converter
- Dual power supply for power redundancy
- 19"/2U housing (L x W x H): 485 x 231 x 90 mm

Art. No.	Description
EL0CH1	19" Rack-mount chassis 2U - 14 slots



SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.



MCT-3002BTFC



CTS Network Fast Ethernet compact Media Converter

The MCT Converter series has a very compact design, space- and cost-saving solution

For single device use or in MCT-RACK-Chassis series to mix installation with MCT series

Autonegotiation, Auto MDI/MDIX, Link Alarm.. . Management variants features: QOS, OAM, VLAN, Link Pass Through eg. With integrated dip-switches for more adjustments With diagnose LEDs

Target Application: Point-to-point fiber connection for long distance External power supply included

Metal housing (D x W x H): 74 x 51 x 20 mm



MCT-3002SFP-DR

MCT-100BTFT

Fast Ethernet Compact Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
MCT-100BTFT	10/100TX	ST 100FX	MM	2000 m
MCT-100BTFC	10/100TX	SC 100FX	MM	2000 m
MCT-100BTFC-SM30	10/100TX	SC 100FX	SM	30000 m

Gigabit Ethernet Compact Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
MCT-3002BTFC	10/100/1000T	SC 1000SX	MM	550 m
MCT-3002BTFC-SM10	10/100/1000T	SC 1000LX	SM	10000 m
MCT-3002SFP-DR	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-
MCT-3002W2A-SM10	10/100/1000T	SC 1000LX	SM	10000 m
MCT-3002W2B-SM10	10/100/1000T	SC 1000LX	SM	10000 m

Gigabit Ethernet Managed Compact Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
MCT-3512SFP-DR	10/100/1000T	1 x MGBIC 100/1000Mbit/s	MM or SM	-
MCT-3512BTFC-SM20	10/100/1000T	SC 1000LX	SM	20000 m

MCT-5002FMSFP+



MCT-5002SFP+



CTS 10G Network Media Fiber Converter

Media Converter for 10G Network Connection over Fiber and Copper Supports 10 Gigabit SFP+ to SFP+ fiber optic connection with full duplex conversion LED Indicators for link and power status

Field of Application:

10G point-to-point fiber optic connection, mode-conversion (MM-<->SM), fiber optic distance extending

Art. No.	RJ45-Port	FO Port	Mode	Distance
MCT-5002SFP+	1 x 100M/1G/2.5G/5G/10G	1 x SFP+ 10GBase-R	MM or SM	-
MCT-5002FMSFP+	-	2 x SFP+ 10GBase-R	MM oder SM	-



MCT-RACK-2



MCT-RACK-18-2A



MCT-RACK-18-MGM-2A



CTS Rack Chassis for Compact Media Converter

MCT Chassis for up to 18 x MCT-converter Supports 10 Gigabit, Fast Ethernet, Gigabit, Singlemode and Multimode MCT media converters Installation of managed and unmanaged MCT media converters possible Diagnostic LEDs for „Power“ and „Fans“ Easy mounting and fast access to the media converters from the front with thumbscrews Ideal application for environments with limited space MCT-RAK-18: Installation for 19“ mounting with the included brackets MCT-RACK-2: Installation for 10“ and 19“ racks with the included brackets

Art. No.	Description
MCT-RACK-18-2A	1.5U 19" Rack Chassis for MCT Converter, 18 Slots, Unmanaged, incl. 2 power.s.
MCT-RACK-18-MGM-2A	1.5U 19" Rack Chassis for MCT Converter, 18 Slots, Managed, incl. 2x power.s.
MCT-RACK-2	CTS 10" Rack Chassis for MCT Converter, 2 Slots, Unmanaged, incl 1x power.s.

SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.



Gigabit Media Converter Switch with 2 x SFP Ports

- 1 Gigabit RJ45 Port and 2 Gigabit SFP Slots
- Transmits data of 10/100/1000Base-T-Copper- to Fiber Optic Interfaces
- IEEE-802.3x Flow-Control protects from packet-loss and allows a reliable data transmission
- Supports transmission with a low time delay
- Diagnostic LEDs
- External power supply included
- Metal housing fanless (L x W x H): 94 x 71 x 26 mm

Art. No.	RJ45-Port	FO Port	Mode	Distance
GVT-2011	10/100/1000T	2 x SFP 1000Base-X	MM or SM	

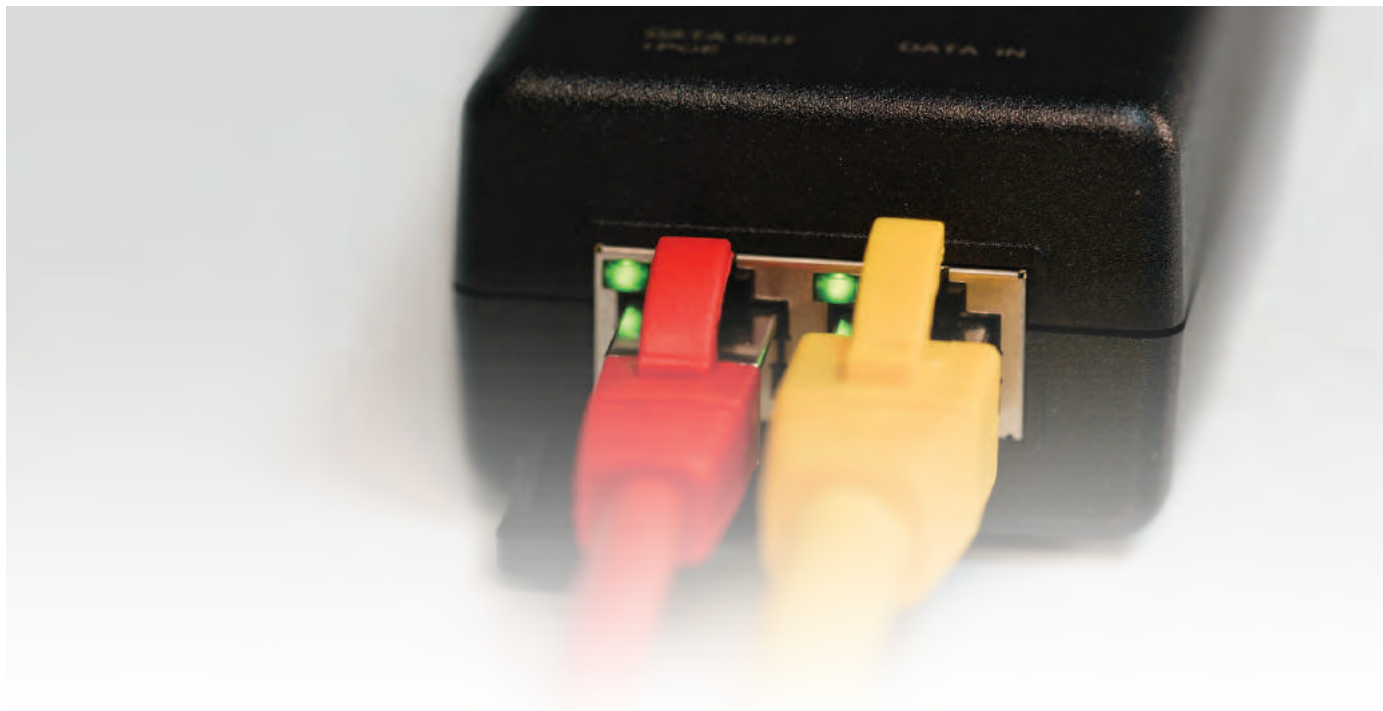


Gigabit Ethernet PoE Media Converter

- Power Sourcing Equipment (PSE) Gigabit Media Converter with SFP slot
- The Media Converter offers PoE+ via the RJ45-port to supply devices (e.g. PoE-cameras, phones, switches) with power
- IEEE-802.3af / at PoE-PSE
- SFP slot supports MiniGBIC for Gigabit 1000BaseX
- Diagnostic LEDs
- Metal housing fanless (W x D x H): 70 x 94 x 26 mm

Art. No.	Description
GVT-2010	Gigabit Ethernet PoE PD Media Converter, 10/100/1000T RJ45 - SFP
GVT-2012	Gigabit Ethernet PoE PSE Media Converter, 10/100/1000T RJ45 - SFP

POE DEVICES //



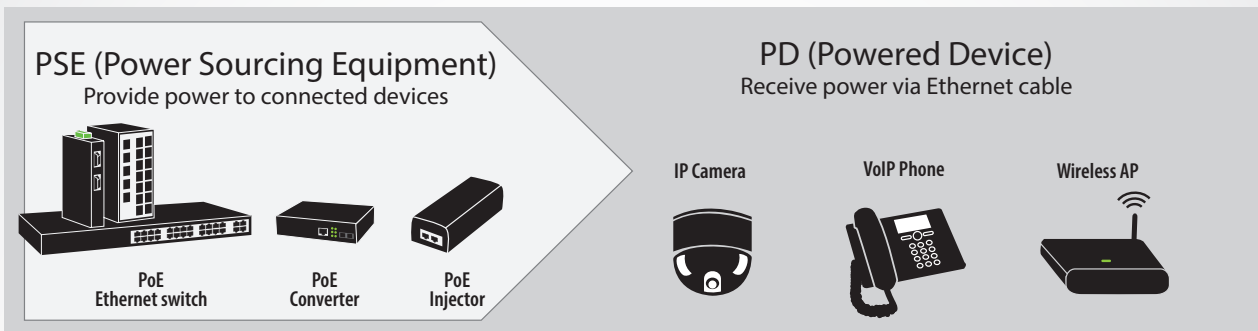
PoE Description	P. 323
PoE-Devices Overview	P. 324
PoE Accessories	P. 325

// YOU MIGHT ALSO BE INTERESTED IN:

Fiber Optic Jumper Cable	P. 76
RJ45 Patch Cable	P. 130
Field Installable RJ45-Plug	P. 158
Optical Transceiver	P. 330



MEDIA CONVERTER POE EXPLANATION



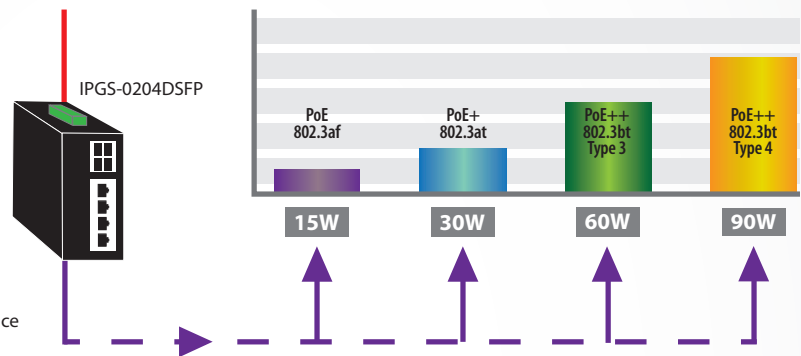
PoE: Power over Ethernet

The PoE standard describes a system for power supply of end devices via structured cabling Cat.5/6/6A/7/7A.

The PoE standards IEEE 802.3af, IEEE802.3at and IEEE802.3bt are worldwide valid standards and provide different maximum electrical power per end device.

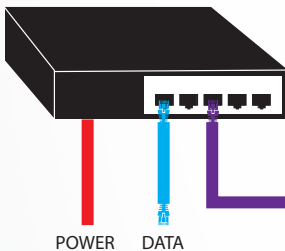
Basic distinction is made between:
Power Suppliers
PSE
Power Sourcing Equipment

End Device
PD
Powered Device



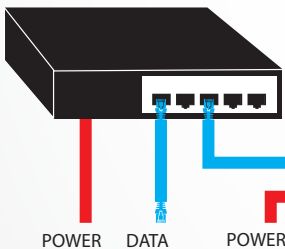
Look up standard terms in the glossary.
Brief and straightforward explanations can be found starting on page 334

PoE Ethernet Switch



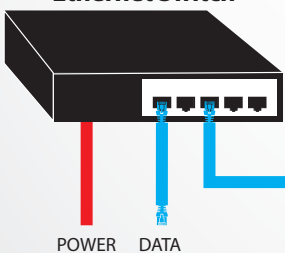
DEVICE POWERED BY POE SWITCH

Ethernet Switch



DEVICE POWERED BY POE INJECTOR

Ethernet Switch



DEVICE POWERED BY POWER SUPPLY



OVERVIEW POE DEVICES

Art.-Nr.	Page	PoE Type	max. PoE Power per Port in W	Max PoE per Device in W
Managed Gigabit Ethernet Switches				
GEP-2681	315	PoE PSE	30	185
GEP-2682	315	PoE PSE	30	370
GEP-2651	315	PoE PSE	30	185
GEP-1061	315	PoE PSE	30	125
Unmanaged Gigabit Ethernet Switches				
GEP-1621	316	PoE PSE	30	240
GEP-1622	316	PoE PSE	30	480
GEP-1021	316	PoE PSE	30	250
GEP-0821	316	PoE PSE	30	123,3
GEP-0822	316	PoE PSE	30	240
Unmanaged Fast Ethernet Switches				
FEP-0811	317	PoE PSE	30	120
FEP-0811W250	317	PoE PSE	30	250
Media converter				
GVT-2010	321	PoE PD		
GVT-2012	321	PoE PSE	30	30
Managed Industrial Switches				
IPES-2208	327	PoE PSE	30	240
IPS-3112-PoE++	327	PoE PSE	60	480
IPS-3110SFP	327	PoE PSE	30	240
Unmanaged Industrial Switches				
IPGS-0204DSFP	328	PoE PSE	30	120
Industrial Media Converter				
IPGC-0101DSFP-48V	329	PoE PSE	30	30
IPC-3012-PoE++	329	PoE PSE	60	60
IPC-3014-PoE++	329	PoE PSE	60	120
PoE Injectors				
PoI-2002	325	PoE PSE	15	15
POA-1000A	325	PoE PSE	30	30
I-SWHUB-1500STY	325	PoE PSE	15	15
I-SWHUB-3000STY	325	PoE PSE	30	30
PoE Splitter				
POS-3000	325	PoE	25	25
PoE Overvoltage Protection				
ESP-2400	325	PoE	30	720
LPB-101G-P	325	PoE	30	30



Levelone Fast Ethernet 15W PoE Injector

1 Fast Ethernet Port DATA IN and
 1 Fast Ethernet Port DATA + PoE OUT up to 15.4 W
 IEEE-802.3af PoE compatible
 MidSpan devices can, independent from the used switch types, be integrated in every network
 Diagnostic LEDs
 Plastic housing fanless (L x W x H): 166 x 51.3 x 87.9 mm

Art. No.	Description
POI-2002	Fast Ethernet PoE Injector 15.4W



Lantech Gigabit 30W PoE+ Injector

1 Gigabit Ethernet Port DATA IN and
 1 Gigabit Ethernet Port DATA + PoE+ OUT up to 30 W
 IEEE-802.3af / at PoE compatible
 MidSpan devices can, independent from the used switch types, be integrated in every network
 Diagnostic LEDs
 Plastic housing fanless (L x W x H): 166 x 51.3 x 87.9 mm

Art. No.	Description
POA-1000A	Gigabit Ethernet PoE+ Injector up to 30W



Techly PoE Injectors

Supplies power and data over an ethernet cable
 Compatible to IEEE 802.3af/at devices
 Plug and Play, no configuration necessary

Art. No.	Description
I-SWHUB-1500STY	10/100Mbps POE Injector 15W IEEE 802.3af
I-SWHUB-3000STY	Gigabit High PoE Injector 30W IEEE 802.3at



Gigabit and Fast Ethernet PoE+ Splitter up to 30W

Automatically detects PoE terminals and supplies inline power
 Easily install Non-PoE devices where a power outlet is not available
 Safeguards network device with short circuit protection
 Adjustable DIP switch for 5V, 9V, or 12V output
 Intergrates Non-PoE devices with Power Over Ethernet support
 Auto-sensing power drawn from 802.3af/at power source equipment(PSE) devices
 Supplies power up to 25 W
 Provides Interchangeable tips
 Metal housing (L x B x H): 60 x 92 x 27 mm

Art. No.	Description
POS-3000	Gigabit Ethernet PoE+ Splitter 30W



24-Port PoE Overvoltage protection, 6KV, 30W

19" overvoltage protection for 24 x RJ45
 6KV surge protection level on each port
 Full overvoltage protection for PoE devices
 Port isolation design prevents surge spread
 Simple Plug and Play installation
 Remote power feeding up to 100m

Art. No.	Description
ESP-2400	24-Port PoE Overvoltage protection, 6KV, 30W,



Connction module Cat.6 RJ45/RJ45 with Overvoltage protection

Overvoltage and lightning protection for 1x RJ45 device
 6KV overvoltage protection
 Full overvoltage protection for PoE devices

Art. No.	Description
LPB-101G-P	Overvoltage protection Cat.6 RJ45 / RJ45, with separate ground connection

ACTIVE INDUSTRIAL- COMPONENTS //



Managed DIN-Rail Switches	P. 327
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Unmanaged DIN-Rail Switches	P. 328
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DIN-Rail Accessories	P. 329
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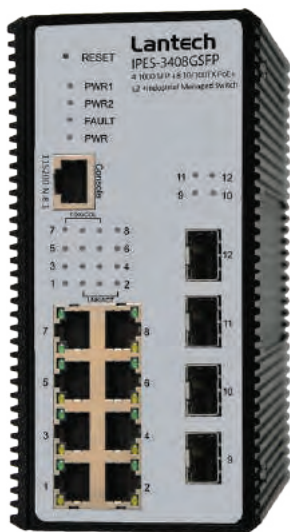
// YOU MIGHT ALSO BE INTERESTED IN:

Keystone Holder for DIN-Rail	P. 126
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RJ45 Patch Cable	P. 130
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IP67/68 Components	P. 166
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19" Wall Housings	P. 220
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IPES-3408GSFP

SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.



Lantech Managed DIN-Rail Switches

- Management: SNMP, WEB, RMON
- Auto MDI/MDIX on each RJ45 port
- Supports Ethernet Ring Protocol Pro-Ring II
- Input voltage range 12 .. 48 V
- Redundant power supply input
- Alarm contact for emergency events such as .B power failure
- Temperature range -20°C .. +60°C *
- Sturdy metal housing, EMC-safe, protection class IP30
- DIN rail mounting or wall mounting possible
- DIN rail power supply not included
- * Models with extended temperature range (-40°C .. +75°C) available on request

Managed DIN-Rail Switches

Art. No.	Management	RJ45 Ports	1G Combo RJ45/SFP Ports	1G SFP Ports
IES-2208CA	Web	8	2	-
IES-3408GSFP	L2	8	-	4

Managed DIN-Rail Switches with PoE

Art. No.	Management	RJ45 Ports	1G Combo RJ45/SFP Ports	1G SFP Ports	Max. PoE power in W
IPES-2208CB	Web	8	2	-	240



IPS-3110SFP



CTS Managed DIN-Rail Switches

- 8x RJ45 Ports + 2x Combo Ports
- Management: SNMP, WEB, CLI
- Features: IGMP, QOS, VLAN and much more
- Dual Rate SFP Slot for 100-FX and 1000-BaseX
- Wide range of operation voltage 9 .. 56 V DC
- Auto-MDI/MDI-X function
- Dual Rate SFP Slot
- Redundant power supply input
- Temperature range -40°C .. +75°C
- Rugged metal housing, EMV-secure, protection class IP40
- DIN-Rail or wall mounting possible
- DIN-Rail power supply not included

Managed DIN-Rail Switches

Art. No.	10/100/1000 Mbps RJ45 Ports	1G Combo RJ45/SFP Ports
IES-3110SFP	8	2

Managed DIN-Rail Switches with PoE

Art. No.	10/100/1000 Mbps RJ45 Ports	1G Combo RJ45/SFP Ports	100/1000 Mbps SFP Ports
IPS-3112-PoE++	8	-	4
IPS-3110SFP	8	2	-



IPGS-0204DSFP

SFP AND SFP+ MODULES CAN BE FOUND ON PAGE 330. COMPATIBLE WITH ALL STANDARD SFP AND SFP+ TRANSCEIVER.



Lantech Unmanaged Din-Rail Switches

- Auto MDI/MDI-X at each RJ45-port
- Wide range of operation voltage 9 .. 56 V DC
- Redundant power supply input
- Alarm contact for emergency events (e.g. like voltage drop)
- Temperature range -20°C .. 60°C *
- Rugged metal housing, EMV-secure, protection class IP30
- DIN-Rail or wall mounting possible
- DIN-Rail power supply not included

Unmanaged DIN-Rail Switches

Art. No.	RJ45 Ports	100FX SC Ports
IES-0005T	5	-
IES-0008T	8	-
IES-0204FT-SC/MM	4	2

Unmanaged DIN-Rail Switches with PoE

Art. No.	10/100/1000 Mbps RJ45 Ports	100/1000 Mbps SFP Ports	Max. PoE power in W
IPGS-0204DSFP	4	2	120



IES-3008-F2



CTS Unmanaged DIN-Rail Switches

- Wide range of operation voltage 12 .. 58 V DC
- Auto-MDI/MDI-X function
- Dual Rate SFP Slot
- Redundant power supply input
- Temperature range -40°C .. +75°C
- Rugged metal housing, EMV-secure, protection class IP30
- DIN-Rail or wall mounting possible
- DIN-Rail power supply not included

Unmanaged DIN-Rail Switches

Art. No.	10/100/1000 Mbps RJ45 Ports	100/1000 Mbps SFP Ports
IES-3005-F1	4	1
IES-3008	8	-
IES-3008-F2	6	2



IPGC-0101DSFP-48V



Lantech DIN-Rail Media Converter

Wide range of operation voltage 9 .. 56 V DC (12 variant)
 44 .. 56 V DC (48 variant)
 Auto-MDI/MDI-X function
 Dual Speed via DIP Switch
 Redundant power supply input
 Temperature range -20°C .. +60°C *
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 DIN-Rail power supply not included*
 extended temperature range types (-40°C .. +75°C) available on request

DIN-Rail Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
IGC-0101DSFP	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-

DIN-Rail Media Converter with PoE

Art. No.	RJ45-Port	FO Port	Mode	Distance
IPGC-0101DSFP-48V	10/100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-



IAC-3014



CTS DIN-Rail Media Converter

PoE Injector IEEE802.3at/af with up to 60 W per Port (IPC-Variants)
 Wide range of operation voltage 48 .. 56 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot
 Support for 3 different modes: Switch, Fiber Backup and Dual Media Converter mode
 Redundant power supply input
 Temperature range -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-240-48

DIN-Rail Media Converter

Art. No.	RJ45-Port	FO Port	Mode	Distance
IAC-3012	100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-
IAC-3014	2x 10/100/1000T	2 x MGBIC 1000Mbit/s	MM or SM	-

DIN-Rail Media Converter with PoE

Art. No.	RJ45-Port	FO Port	Mode	Distance
IPC-3012-POE++	100/1000T	1 x MGBIC 1000Mbit/s	MM or SM	-
IPC-3014-POE++	2x 10/100/1000T	2 x MGBIC 1000Mbit/s	MM or SM	-



HDR variants



NDR variants

Mean Well DIN-Rail Power Supply

Power Supply for DIN-Rail Switches

12V Power Supply

Art. No.	Voltage Output	Power	Current
NDR-75-12	12 V	75 W	6.3 A
NDR-120-12	12 V	120 W	10.0 A

24V Power Supply

Art. No.	Voltage Output	Power	Current
HDR-15-24	24 V	15 W	0.63 A
HDR-30-24	24 V	30 W	1.5 A
NDR-75-24	24 V	75 W	3.2 A
HDR-100-24	24 V	100 W	4.2 A
NDR-120-24	24 V	120 W	5.0 A
NDR-240-24	24 V	240 W	10.0 A

48V Power Supply

Art. No.	Voltage Output	Power	Current
NDR-75-48	48 V	75 W	1.6 A
NDR-120-48	48 V	120 W	2.5 A
NDR-240-48	48 V	240 W	5.0 A
NDR-480-48	48 V	480 W	10.0 A



53719.1V2

19" 4U Universal DIN-Rail Holder

For carrying DIN rail components
Also suitable for wall- and ceiling mounting
 DIN rail according to DIN EN 60715 TH35 (35 x 7.5 mm)
 Width of DIN rail 435 mm
 DIN rail depth-adjustable from ca. 55 .. 165 mm (step-less)
 Rear-sided C-rail for cable fixing, height-adjustable
 DIN-rail is mountable also horizontally

Art. No.	Description
53719.1V2	19" Universal DIN Rail Holder incl. 4U Bracket Set

OPTICAL TRANSCEIVER //



Transceiver Modules	P. 331
Transceiver Cable	P. 333

// YOU MIGHT ALSO BE INTERESTED IN:

Fiber Optic Jumper Cable	P. 76
Fiber Optic Cleaning Materials	P. 96
Media Converter	P. 318
Network Switches	P. 314



OPTICAL TRANSCEIVER PORTFOLIO

Optical transceiver modules are the easiest solution to extend the existing network or to connect distant networks with active network technology (like switches or media converters). EFB-Elektronik offers you a wide transceiver portfolio. You choose between products of the market leader Finisar (II-VI), the German technology company CBO or our own brand.

Regardless of which brand you choose, you should always ensure the correct transmission speed and compatibility with the switch manufacturer when purchasing. If you have any questions about this, we will be happy to advise you.

FINISAR



FINISAR (II-VI)

- Largest transceiver manufacturer in the world
- Awarded by Cisco, HP, Extreme Networks, Huawei
- Transceivers from 1Gb/s to 400Gb/s
- Fail-safe due to constant quality control



CBO

- High quality due to components from US manufacturers
- High product lifetime of 10 years on average
- Fast delivery due to large stocks in Germany
- Solutions for all common systems up to 400Gb/s for over 200 manufacturers



EFB-ELEKTRONIK

- Fast delivery due to high stocking with standard solutions for 1Gb/s and 10Gb/s
- Special solutions can be flexibly implemented on request
- 3 years product warranty
- Attractive pricing

100Mbit SFP Transceiver

Finisar

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
FTLF1217P2BTL	Standard	LC duplex	100 Mbit/s	100BaseFX	1310 nm	2 km	-40 – 85 °C
FTLF1323P1BTL	Standard	LC duplex	100 Mbit/s	100BaseFX	1310 nm	40 km	-40 – 85 °C

CBO

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
B005A13602D-B0	Standard	LC duplex	100 Mbit/s	100BaseFX	1310 nm	2 km	0 – 70 °C
B005A13610D-B0	Standard	LC duplex	100 Mbit/s	100BaseLX	1310 nm	10 km	0 – 70 °C



OPTICAL TRANSCEIVER PORTFOLIO

1G/1.25G SFP Transceiver



Finisar

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
FCLF8521P2BTL	Standard	RJ45	1000 Mbit/s	10/100/1000BaseT	-	100 m	-40 – 85 °C
FTLF8519P3BNL	Standard	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	-20 – 85 °C
FTLF1318P3BTL	Standard	LC duplex	1000 CTS	1000BaseLX	1310 nm	10 km	-40 – 85 °C

CBO

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
B005C13610D-BO	Standard	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C
B005C85655D-BO	Standard	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
B008C2851-BO	Standard	RJ45	1000 Mbit/s	1000BaseT	-	100 m	0 – 70 °C
10051-BO	Extreme Networks	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
10052-BO	Extreme Networks	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C
GLC-LH-SMD-BO	Cisco	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C
GLC-SX-MMD-BO	Cisco	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
GLC-T-BO	Cisco	RJ45	1000 Mbit/s	1000BaseT	-	100 m	0 – 70 °C
J4858C-BO	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
J4858D-BO	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
J4859C-BO	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C
J4859D-BO	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	10 km	0 – 70 °C

EFB Elektronik

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
SFP1000LX	Cisco and Standard	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	20 km	0 – 70 °C
SFP1000SX	Cisco and Standard	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C
SFP1000LX-HPARUBA	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseLX	1310 nm	20 km	0 – 70 °C
SFP1000SX-HPARUBA	HP Enterprise	LC duplex	1000 Mbit/s	1000BaseSX	850 nm	550 m	0 – 70 °C

10G SFP+ Transceiver



Finisar

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
FTLX8574D3BCL	Standard	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	-5 – 70 °C
FTLX1471D3BCL	Standard	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	-5 – 70 °C
FTLF8536P4BCL	Standard	LC duplex	25 CTS	25GBaseSR	850 nm	100 m	0 – 70 °C

CBO

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
B008J7856-BO	Standard	RJ45	10 CTS	10GBase-T	-	30 m	0 – 70 °C
B035J13610D-BO	Standard	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
B035J85653D-BO	Standard	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C
10301-BO	Extreme Networks	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C
10302-BO	Extreme Networks	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
J9150A-BO	HP Enterprise	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C
J9150D-BO	HP Enterprise	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C
J9151A-BO	HP Enterprise	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
J9151D-BO	HP Enterprise	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
SFP-10G-LR-BO	Cisco	LC duplex	10 CTS	10GBaseLR	1310 nm	10 km	0 – 70 °C
SFP-10G-SR-BO	Cisco	LC duplex	10 CTS	10GBaseSR	850 nm	82/300 m	0 – 70 °C

EFB Elektronik

Art. No.	Compatible to	Connector	Speed	Protocol	Wavelength	Link distance	Temperature
SFP10GSR-300M	Cisco and Standard	LC duplex	10 CTS	1000BaseSX	850 nm	82/300 m	0 – 70 °C
SFP10GLR-10KM	Standard	LC duplex	10 CTS	10GBaseSR	1310 nm	10 km	0 – 70 °C



BlueLAN passive DAC Cable, SFP+ to SFP+

Up to 11 GBd bi-directional data links
 Compliant with 10GFC
 Compliant with SFF8431
 Compliant with IEEE 802.3ae standard
 Hot-pluggable SFP+ footprint
 Enhanced EMI design
 Single power supply 3.3V
 Operating temperature range: 0° to 70°

Lengths in metres : 1,0 - 2,0 - 3,0 - 5,0 - 7,0

Art. No.	Description
SC353501J1M30-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 1m, AWG30
SC353501J2M30-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 2m, AWG30
SC353501J3M30-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 3m, AWG30
SC353501J5M24-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 5m, AWG24
SC353501J7M24-BL	BlueLAN passive DAC Cable, SFP+ to SFP+, 10GBASE-CR, 7m, AWG24



BlueOptics AOC Fibre Optic Cable, SFP+ to SFP+

For 10G Ethernet Data Center Intra-Rack and Inter-Rack links
 Hot-pluggable SFP+ cable ends
 Rigid pull-tab for improved high-density installations

Lengths in metres : 1,0 - 3,0 - 4,0 - 5,0 - 10 - 20

Art. No.	Description
B0353503J1M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 1m, MM G50/125µm
B0353503J3M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 3m, MM G50/125µm
B0353503J4M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 4m, MM G50/125µm
B0353503J5M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 5m, MM G50/125µm
B0353503J10M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 10m, MM G50/125µm
B0353503J20M-B0	BlueOptics, Active Optical Cable, 2 x SFP+, 10GBASE-SR, 20m, MM G50/125µm

5Play™

Commonly used term coming from Multimedia HDBase™™ concerning this 5 embedded benefits: Audio/Video – Ethernet – USB – Control – Power.

► Chapter Multimedia

10 Gigabit Ethernet

Data transmission speed of 10 billion bit per second, 10Gbit/s. Cabling concepts can be found in

► Chapter Fiber Optic and Copper Cabling

10 inch

Developed from standardized 19 inch system with nearly halved value of 10 inch = 254 mm, 1 unit= 1,75inch= 44,45mm.

► Chapter Cabinet Systems

1000BaseX

Gigabit Ethernet, regarding SFP ports for Gigabit Transceiver only. (1000Base SX, 1000Base-LX, 1000Base-T).

► Chapter Active Network Components

1000BaseLX

Gigabit Ethernet, regarding Fiber Optic Singlemode, Long Wave 1310nm.

► Chapter Active Network Components

1000BaseSX

Gigabit Ethernet, regarding Fiber Optic Multimode, Short Wave 850nm.

► Chapter Active Network Components

1000BaseT

Gigabit Ethernet, regarding Copper Cabling, Twisted Pair.

► Chapter Active Network Components

100BaseFX

Fast Ethernet 100Mbps based on Fiber Optic.

► Chapter Active Network Components

19 inch

System of structural components, chassis and subracks, originally slopped from USA to Europe and standardized in Germany in the late seventies as DIN 41494. 19"-technology utilize specified measurements, e.g. rack units and horizontal pitch to avoid time-consuming calculations from inch to centimetre. Rack units (U) are used for vertical dimensions, horizontal pitch (HP) are used for horizontal sizes e.g. for 19" subracks. Pitch 0,1 inch = 2,54 mm, 1 HP 0,2 inch = 5,08 mm, 1 U 1,75 inch = 44,45 mm, frontplate 19 inch = 482,60 mm, 1 subrack = 84 HP.

► Chapter Cabinet Systems

21 inch

► Chapter Network and server cabinets

AC/DC

Shortcut for AC – Alternate Current and DC – Direct Current. For any small device running with direct current, mains voltage must be. See also power supply.

► Chapter Active Network Components

Access Point

Active device to convert wired signals into wireless signals. APs for WLAN IEEE802.11 mostly are responsible for internet connection acting like so called Hot spots.

► Chapter Active Network Components

AOC

Shortcut for Active Optical Cable, constructed of fiber with assembled transceivers on both ends. Compared to solutions based on standard transceivers, it could be a good value, but first of all, extremely energy-efficient. Fiber is a good featured and EMC safe medium, high packing density, biterror free transmission even for long distances and without any electromagnetical interferences. Application areas are digital Audio/Video, like HDMI, High Speed Ethernet - Infiniband - Fiber channel - Storage Area Networks - Local Area Networks – Datacenter.

► Chapter Active Network Components

FCBG110SD1Cxx



K5431AOC



APC - Angled Physical Contact

Typical angles of end surface of fiber plugs are 8° to the centerline or 9° for provider (Telecom). As a result of the combination with angled ferrules, extremely high return loss (HRL) values are possible. Reflections are generated at the end surface of fiber plugs. APC do not avoid these reflections, but APC changes the direction of reflections with an angle of 8° to the centerline, out of fibercore of single mode fiber. Hence light transmission gets more secure and stable without reflections to the laser transmitter. APC connectors are indicated with green colour and it is not allowed to mix it up with other coloured connectors.

Schliffart	Rückflussdämpfung	Prinzip
plangeschliffene Endflächen mit Luftspalt (Wird nicht mehr verwendet)	14 dB	
konvex geschliffene Endflächen PC (Physical Contact) UPC (Ultra Physical Contact)	> 40 dB > 50 dB	
APC (Angled Physical Contact) Schrägschliff mit konvexen Endflächen	> 60 dB	

Attenuator

Term for a special component to consciously cause attenuation (=energy loss) of the signal amplitude sent. Too high transmission power, e.g. due to missing link loss because of significantly shorter transmission distance than expected, can be adapted to the optimal receiver sensitivity.

► Chapter Fiber optic cabling

Auto MDI/MDIX

Physical connection in Ethernet applications of twisted pairs transmitting pairs and receiving pairs, are detected and assigned automatically, e.g. switch to workstation or switch to media converter.

► Chapter Active Network Components

Autonegotiation

Connections in Ethernet applications will be negotiated for the best common protocol and transmission speed, e.g. switch to workstation or switch to media converter.

► Chapter Active Network Components



AWG – American Wire Gauge

American Wire Gauge, a table for wire diameters or conductor cross-sections plus the associated Electrical resistance in ohms. The AWG value provides information about the necessary drawing steps of the wire during the manufacturing process. The more often a „drawing course“ is passed, the thinner the wire becomes.

Bidirectional

Full Duplex point to point communication channel, to send or to receive signals is simultaneously possible, e.g. the classic phone call.

Bendinsensitive

Special type of glass fiber: a very small bending radius without higher loss is possible. See also ITU-T G.657.A/B

► Chapter Fiber Optic Cabling

BNC

Bayonet Nut Connector, probably most often used description. Connector for coaxial cable, extremely suitable for high frequency. Metal shell and Bayonet fixing are further points for the great popularity since almost 70 years in different application fields like radio technology, video engineering, network systems and measurement technique.

► Chapter Multimedia



Breakout cable

Designation for a divisible cable consisting of at most 2 simplex cables of different thickness in a common outer sheath. Excellent protection of multimode or singlemode fiber and predestined for plug assembly.

► Chapter Fiber Optic Cabling



Buspowered

Term for the simultaneous power supply of active components via the common data/address BUS, formerly also called remote power. The most well-known variant is the USB interface, followed by Power over Ethernet, see also USB or PoE.

► Chapter Multimedia and Active Network Components

Cage nut

A square nut usually in M6, which is enclosed in a metal cage. The cage nut is used to mount 19 inch devices in 19 inch housings or racks.

► Chapter Network and Server Cabinets



Category 5/6/6A/7/7A/8

Structured cabling system with different grades (categories) classified by bandwidth in MHz, standardized by ISO/IEC11801 worldwide.

► Chapter Copper Cabling

CATEGORY					
100 MHz	250 MHz	500 MHz	600 MHz	1000 MHz	2000 MHz
TIA/EIA 568-B.2-1 Cat.5e	TIA/EIA 568-B.2-1 Cat.6	TIA/EIA 568-C.2 Cat.6A			TIA/EIA Cat.8
ISO/IEC11801 Cat.5 Class D	ISO/IEC11801 Cat.6 Class E	ISO/IEC11801 Cat.6 _A Class E _A	ISO/IEC11801 Cat.7 Class F	ISO/IEC11801 Cat.7 _A Class F _A	ISO/IEC11801 Cat.8.1/8.2 Class I Class II
EN 50173 Cat.5 Class D	EN 50173 Cat.6 Class E	EN 50173 Cat.6 _A Class E _A	EN 50173 Cat.7 Class F	EN 50173 Cat.7 _A Class F _A	ISO/IEC11801 Cat.8.1/8.2 Class I Class II

Certifier

Term for a high-quality and necessary measuring instrument for local area networks. In accordance with the limits of structured cabling according to ISO/IEC11801, the permanent installed links are legally certified after measuring. See also Qualifier.

Closures

Fiber optic closures can be junction or connection closures for outdoor use. They include for example splice cassettes as well as other passive elements for fiber management and protect the optical fibers against external influences. The cable entries of the FO closures can vary in diameter. For this purpose, different types of closures are offered which optionally have several oval entries for uncut pipe loops as well as several exits for distribution feeder (inputs/outputs) and access cables. Depending on the type of cable and installation, suitable sealing sets are also available.

► Chapter Fiber Optic Cabling



Coaxial cable

Term for a two-conductor cable with concentric structure. The inner conductor (core) is fixed at a constant distance from the outer conductor (shielding). This asymmetrical medium is particularly low-loss in high-frequency transmissions. See also BNC.

► Chapter Multimedia



C

Combo / Shared RJ45/SFP

Combined ports, usable either 1 x SFP or 1 x RJ45 port, virtually share one port.

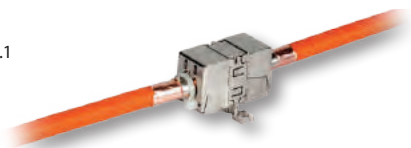
► Chapter Active Network Components

Connection module

These connection modules are used to reconnect damaged twisted pair cables or to extend an installed permanent link.

► Chapter Copper Cabling

37597.1



Connection wire

A term from telecommunications. An insulated, solid copper conductor for connecting and wiring LSA connectors. Usual in market are the diameters of 0.5mm and 0.6mm, which are already twisted pairs.

► Chapter Copper Cabling

Consolidation Point

Concentration point. A Consolidation Point is a stationary point in the horizontal structured cabling system. It is often used in open office cabling and is a core element of stationary cable systems that connect to the data outlet at the workplace. A Consolidation Point is an additional connector between the floor distributor (FD) and the data outlet (TCP) and it provides more flexible management of structured cabling. One Consolidation Point can supply multiple data ports.

► Chapter Copper Cabling

Converter

A converter converts for example an analog video signal VGA to a digital video signal HDMI. Another example would be the conversion of a digital USB2.0 protocol into a digital RS232 protocol format.

► Chapter Multimedia

CPR Construction Products Regulation

The Construction Products Regulation is a regulation of the European Union. Its main goal is to create harmonised products and tests standards for construction products across Europe. The regulation is the legal basis for CE-marking construction products and for issuing declarations of performance. Construction products are products that are permanently installed in a building and whose performance has an effect on the performance of the building. Power, control and communication cables in buildings are covered by this regulation. Up until mid-2017, these cables have to be tested according to European test standards in terms of their fire characteristics and assigned to the new Euro classes. The EU Construction Products Regulation defines the conditions for CE-marking and requires manufacturers to make a declaration of performance on the following key product characteristics, derived from the protective objectives: fire safety (flame propagation, heat development, smoke development, acid formation and burning droplets).

► www.efb-elektronik.de/en/construction-products-regulation

Crimp tool

Hand crimping tool for the production of crimp connections of various connectors. Crimping allows solder-free electrical connections for stripped solid wire conductors or stranded conductors. The connection area of the crimp contact is deformed and thus establishes a solid, gas-tight connection with the conductor.

► Chapter Copper Cabling and Multimedia

52535.2



CWDM

These so-called „Wave Division Multiplex“ techniques are suitable for, not only one wavelength per fiber, but a variety of different wavelengths coupling or decoupling into only one single mode fibercore. For the medium-haul sector, e.g. MAN city networks, a technology called CWDM can be used, Coarse Wave Division Multiplex. Wavelength windows are predefined across the full spectrum. There are 18 wavelengths with a „channel spacing“ of 20nm, 1270nm to 1610nm.

► Chapter Fiber Optic Cabling

DAC Direct Attached Copper

DAC is a construct consisting of a twinaxial copper cable with transceiver modules fixed on both sides, thus bridging up to a maximum of 10 m. DAC cable assemblies, in contrast to standard SFP transceivers solutions, are very attractive in terms of price and energy. Applications include High Speed Ethernet - Infiniband - Fiber channel - Storage Area Networks - Local Area Networks - Datacenter.

► Chapter Active Network Components

K5300V2.x



Data outlet

A defined component in the structured outlets according to ISO/IEC11801. Data sockets allow the connection of the terminal devices as a permanent link termination point. The quality is determined by categories 5/6/6A/7/7A/8.

► Chapter Copper Cabling

ET-25130.1V1



Design capable

A property related to switch programs for UAE (Universal connection unit) and TAE (telecommunications connection unit). Design capable data outlets or termination components are compatible with all switch program manufacturers.

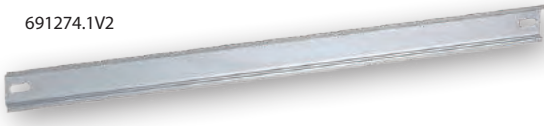
► Chapter Copper Cabling

DIN rail

TH35, DIN RAIL. A metal mounting rail with a hat-like profile in the dimensions 35mm x 7.5mm. Used in electrical engineering for mounting various components in switch cabinets, wall housings or distribution boxes.

► Chapter Network and server Cabinets

691274.1V2



DIP Switch Dual Inline Package

Another term is DIL Switch Dual In Line. In the same DIP design regarding TTL or CMOS ICs, individual connections can be switched on and off. The component, known as „mousepiano“, is used for the manual configuration of digital interfaces.

► Chapter Active Network Components

IES-3005-F1



Displayport & Minidisplayport

Less known than HDMI, but no worse is the DisplayPort standard and its smaller compact brother the Mini DisplayPort. Of the pure performance characteristics, it even has a higher capacity than HDMI. One of the great advantages of the DisplayPort connector is the locking option, which makes it a popular interface where DVI and VGA used to be standard. These features and more make it popular with PC users and in the industrial sector.

► Chapter Multimedia

K5440HQSW.x



Standard	DP1.2	DP1.4
Released	2009	2013
Max. DataRate	min. 17,28 Gbit/s	min. 25,92 Gbit/s
Max. Resolution	4K 60Hz	8K 120Hz, 8K 60Hz
HDR	no	yes

D-Sub

denotes a family of connectors, as an abbreviation for D-Subminiature. About 40 years ago, these connectors were kept miniature with the D-frame. D-Sub still exist today in a two-row contact arrangement for the pole numbers: 9 – 15 – 25 – 37- 50. The three-row contact arrangement still exists today in the pole numbers: 15 – 26 – 44 – 62 and is called HD-Sub, HD for High Density. The 9-pin D-Sub9 design correlates with HD-Sub15, the 15-pin D-Sub15 with HD-Sub26, the 25-pin D-Sub25 with HD-Sub44 and the 37-pin D-Sub37 with HD-Sub62.

The connectors were currently widely used in data technology and especially in the era of personal computers that has increased about 35 years ago. VESA chose the HD-Sub15 as a connector for the analog video interface for the first VGA standard. The SCSI world enjoyed the high-pole D-Sub connectors, all serial interfaces such as RS-232 or RS-485 chose D-Sub25, D-Sub15 or to this day the D-Sub9 as connectors for the interfaces. To this day, D-Sub and HD-Sub connectors are significant and popular on the industrial market, as they impress with their robustness, reliability, high contact load and locking. A wide range of housings and accessories completes the D-Sub portfolio.

► Chapter Cables and adapters



Dual-Speed

Fast Ethernet or Gigabit Ethernet transceivers that can be plugged into SFP Fiber Slots. In contrast to a standard SFP slot, two Ethernet speeds are possible here.

► Chapter Active Network Components

Dual-Rail

A dual-rail system that allows LCD consoles to pull out the monitor and keyboard unit separately.

► Chapter Multimedia

Dual-View / Dual-Display

A KVM switch or KVM extender provides the ability to view video output on 2 displays.

► Chapter Multimedia

DVI Dual-Link

With the dual-link interface, the data lines in the cable have been doubled, allowing a maximum resolution of 2560 x1600 pixels. DVI dual-link cables require at least 25 pins (24+1) plugs. DVI sockets are compatible with single-link and dual-link connectors.

► Chapter Multimedia



DVI Single-Link

DVI interface for a maximum resolution of 1920x1200 pixels. DVI single-link cables require at least 19 pins (18+1).

► Chapter Multimedia

DWDM - Dense Wave Division Multiplex, see also CWDM

These so-called „Wave Division Multiplex“ techniques are suitable for, not only one wavelength per fiber, but a variety of different wavelengths coupling or decoupling into only one singlemode fibercore. For long-distance traffic, e.g. intercontinental, a technology called DWDM can be used, which of course requires exquisite equipment. With “channel spacing” of 2nm, only one singlemode fibercore is able to transmit hundreds of wavelengths and that means hundreds of services.

► Chapter Fiber Optic Cabling

E2000^R

Patented connector by the company Diamond[®]. With extraordinary mechanical properties. Very popular for passive infrastructure, wide area networks, DWDM, datacenter and FTTx. In the LAN sector for active components practically insignificant.

► Chapter Fiber Optic Cabling

Ethernet

The uniform language, the transmission protocol, in the LAN is called Ethernet, a service for data transmission based on application-neutral structured cabling according to ISO/IEC11801. Developed in the late 1970s, Ethernet was a collective term for a whole series of baseband networks with different topologies. The original Ethernet standards were pure BUS topologies whose BUS segments were connected via repeaters or bridges. The stations were connected to the BUS cable via transceivers. The gross transmission rate was 10Mbps.

TERMS AND EXPLANATIONS

E

Meanwhile the development and standardization process is extremely advanced by the technology of Ethernet switching. As a result, better transfer rates have become possible, from 100Mbps Fast Ethernet to Gigabit, 10Gigabit, 25Gigabit, 40Gigabit, 50Gigabit, 100Gigabit, 200Gigabit up to the gigantic 400Gigabit. There are also plans to further increase the transmission rates in the future.

Extender

Extenders make it possible to extend the transmission distance for audio/video signals via Cat.5/6/7 network cables or optical fibers. These are 1:1 connections that are established using a transmitter and a receiver.

► Chapter Multimedia



HDBT-100

F

Fast Ethernet

Fast Ethernet 100Mbps for the medium LWL (fiber) and Twisted Pair (copper)

► Chapter Active Network Components

FC connector

Fiber Connector, an extremely high quality connector for optical fibers with 2.5mm ferrule. Particularly stable thanks to metal housing and extremely secure thanks to screw cap. No importance in the LAN area, but very popular in the WAN, e.g. as interface for high-quality measuring instruments.

► Chapter Fiber Optic Cabling

Ferrite core

A special component to keep electromagnetic interference of a current-carrying cable as low as possible, effectively an interference filter. Two-part folding ferrites in different designs qualify as subsequent interference suppression filters for pre-assembled cables. These are available for various cable diameter and frequency ranges.

► Chapter Multimedia



71504.1

G

Fiber stripper

Precision tool for stripping jacket, primary coating and secondary coating of fiber cables in wished lengths.

► Chapter Fiber Optic Cabling



39956.1

Flat Pack

Term for a flat, space-saving packaging of a 19 inch housing for self-assembly with logistical advantages.

► Chapter Network and server Cabinets

691706FGR.1



Flat Twin

Flat twin cable with common outer sheath. A breakout cable consisting of two simplex cables which are particularly well protected by a common outer sheath. In cross-section, the structure results in an oval, which explains the legendary name „Figure O cable“.

► Chapter Fiber Optic Cabling

O0360FT.x



Flexible cable

EFB term for unassembled raw cable from different manufacturers, consisting of stranded wire AWG26/7 or AWG27/7.

► Chapter Copper Cabling

FRNC

Flame Retardant Non Corrosive, inner cable with flame-retardant and halogen-free cable sheath according to the fire protection standards IEC60332 and IEC60754. See also LSZH.

► Chapter Copper Cabling and Fiber Optic Cabling

FTTH

FTTH (Fiber to the Home) is the fiber optic cabling to the building where the installation ends at the subscriber terminal. For this purpose, for example, the EN 50700 serves as the basis for implementing the network expansion.

► Chapter Fiber Optic Cabling

Full HD

Full High Definition („completely high resolution“). Standard video resolution of 1920 x 1080 pixels for HDTV-capable output devices such as TVs and beamers - sometimes referred to as 1080p.

► Chapter Multimedia

G.652.D

The ITU-T defines a full spectrum single mode fiber, the Zero Water Peak fiber, under the reference number G.652.D This development from the standard SMF enables CWDM over the full spectral range.

► Chapter Fiber Optic Cabling

G.657.A/B

The ITU-T defines bending-optimized SM fibers under the reference number G.657. Especially for FTTH, smaller bending radii of less than 10mm are required without the loss of transmission quality due to the associated increase in attenuation. The category G.657.A fulfills the compatibility to the SM fiber G.652.D, which does not fulfil the G.657.B category. However, the G.657.B allows the smallest low-loss bending radius.

► Chapter Fiber Optic Cabling

	Specified loss in dB for 1 turn at 1550 nm for radius:			
	15 mm	10 mm	7.5 mm	5 mm
ITU-T				
G. 657A1	<0.025*	<0.75	-	-
G. 657A2 / B2	<0.03	<0.1	<0.5	-
G. 657B3	-	<0.03	<0.08	<0.15

GBIC

Gigabit Interface Converter, based on SC Duplex connector system.

► Chapter Active Network Components

GE

Abbreviation for Gigabit Ethernet.

► Chapter Active Network Components

GHMT - Gesellschaft für Hochfrequenz und Messtechnik

Society for high frequency and measurement technology. An accredited, internationally recognised test laboratory based in Bexbach, Germany. Particularly appreciated in the entire DACH market area.

► Chapter Fiber Optic and Copper Cabling

HDBaseT™

With the connection standard HDBaseT™ it is possible to transmit high-resolution multimedia signals up to 4K without loss of quality. HDBaseT™ is based on a so-called 5Play™, which combines the transmission of audio/video, Ethernet, USB, control signals and power up to 100m and 100W via one network cable.

► Chapter Multimedia

HDMI - High Density Multimedia Interface

Introduced in 2002 and now in version 2.1. Enables the transmission of video content with a resolution of up to 8K (7680x4320) and a data transfer rate of 48Gbps. A purely digital connection through which video and audio signals can be transmitted. Mainly for home entertainment and PC market.

► Chapter Multimedia

K5440HQSW.x

**HDTV - High Definition Television**

A high-resolution image format, see also Full HD.

► Chapter Multimedia

Horizontal pitch

1 HP = 5,08mm, see also 19 inch.

► Chapter Network and Server Cabinets

Hub

Used in the USB field as a synonym for an interface multiplier.

► Chapter Multimedia

IEC60320

Defines worldwide the connectors for electrical end devices for power supply with an operating voltage of up to 250VAC.

► Chapter Power Supply

Injector

Term from the Power over Ethernet category. An injector supplies exactly one end device with data and power, depending on the PoE standard and the Ethernet standard: IEEE802.3af/at/bt for Fast Ethernet 100Mbit/s or Gigabit Ethernet 1000Mbit/s. See also PoE.

► Chapter Active Network Components

POA-1000A

**Insertion tool**

Special tool for LSA terminals for applying insulated wires of communication cables to LSA connection technology.

► Chapter Copper Cabling

39933.1

**Interferometer**

Precision measuring instrument for the measurement and evaluation of ferrule end faces, fiber heights and connector angle of assembled connectors in the field of optical fibers.

► Chapter Fiber Optic Cabling

IP - International Protection

IP degrees of protection are standardized according to IEC 60529 (EN 60529). Connectors suitable for industrial use are subdivided according to an IP coding in terms of their suitability for different environmental conditions, in the form of a two-digit number. The first digit stands for the scope of protection with regard to contact with foreign bodies, the second digit classifies the protection against moisture.

► Chapter Copper Cabling

ISDN - Integrated Services Digital Network

A digital network for voice and data services. Today almost completely replaced by IP services such as Voice over IP for digital telephony.

► Chapter Copper Cabling

Keystone

Term for a mounting opening in frames or front panels with the dimensions 15mm x 19.25mm - 20mm. The mounting of various connectors for this snap-in technology is extremely simplified. Although not standardized, this mounting method is very popular on the market.

► Chapter Copper Cabling, Fiber Optic Cabling and Multimedia

E-20095

**KVM switch**

KVM stands for Keyboard, Video and Mouse. With a KVM switch it is possible to control a large number of PCs from one console.

► Chapter Multimedia

Locking system 1/3-point

Network/server cabinet locking systems.

A 1-point closure locks centrally at the position of the locking cylinder or the closing point, while a 3-point closure secures the corresponding door at the top/bottom end and at the central locking point. This so-called rod or bar locking is much more complex and qualitative.

► Chapter Network and Server Cabinets

LC connectors

The Lucent connector, also known as LC connector, has a high packing density due to its small dimensions and a ferrule diameter of 1.25mm. The plastic LC connector faces are used in LAN and switch systems, CATV, SONET/SDH, ATM, WDM communication systems as well as in measuring and test equipment. The typical insertion loss of the LC connectors is 0.2dB. The LC connectors are standardized according to IEC 61754-20. The locking mechanism is provided by a springed clip lock.

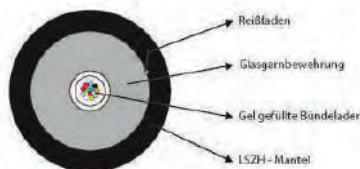
► Chapter Fiber Optic Cabling



Loose tube

Plastic tubes with different number of fibers as part of a fiber optic cable. The fibers are bundled in the tube.

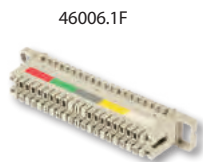
► Chapter Fiber Optic Cabling



LSA terminal

Solderless - screwless - stripping free, a connection technique used in telecommunications, special tools required - see also application tool. This type of contact is also used today for data outlets and patch panels according to the structured cabling standard acc. to ISO/IEC11801.

► Chapter Copper Cabling



LSZH (LS0H) - Low Smoke Zero Halogen

Indoor cables with flame-retardant and halogen-free cable sheathing in accordance with fire protection standards IEC60332 and IEC60754. See also FRNC.

► Chapter Copper Cabling and Fiber Optic Cabling

Matrix switch

A matrix switch provides the function of switching the inputs and outputs of the switch to each other in different ways. Multiple video input signals can be distributed to several video outputs simultaneously, for example.

► Chapter Multimedia

Media converter

Term for a medium signal converter in the LAN area, which works protocol-dependent and, for example, connects the medium twisted pair and the medium optical fiber physically and logically. Example: Media converter Fast Ethernet RJ45 100BaseT to SC Duplex 100BaseFX MM.

► Chapter Active Network Components



Midspan

A midspan is used to connect a power supply according to IEEE802.3af/at/bt PoE for structured cabling lines. The midspan is installed between Ethernet Switch and Permanent Link, see also Injector and PoE.

► Chapter Active Network Components

Mini DIN

Circular connectors with different numbers of poles. Mini Din 6 was used as serial Interface PS/2 for a long time. Today largely displaced from the market by alternative serial interfaces such as USB.

► Chapter Multimedia



MiniGBIC

Mini Gigabit Interface Converter, another name for SFP, based on LC duplex connector system.

► Chapter Active Network Components



Mini Gender Changer

Common term for an adapter of a connector family, e.g. DSUB miniature connector, which acts as a feedthrough adapter. The two pluggable „faces“, male/male or male/female or female/female are the main pillars of the name: gender converter.

► Chapter Multimedia



Mode Conditioning Cable

In these special manufactured duplex jumpers, the singlemode fiber is spliced to one of the two multimode fibers with a defined core offset. This means that the spot of the laser diode is not fed into the DMD susceptible core center, but into the DMD insensitive core edge region of the multimode fiber. Mode Conditioning Jumpers are used on both sides of the transmission path, whereby the single mode fiber must be connected to the transmitter of the transceivers at each end of the communication port. Application area is the optimization of multimode data connections and the extension of the length restriction for Gigabit Ethernet 1000BaseLX (1300nm). In the transmission window „850nm“ a singlemode fiber is not defined, so mode conditioning is not possible for the Ethernet protocol 1000BaseSX.

► Chapter Fiber Optic Cabling



Modular Adapter

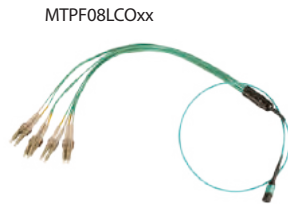
Adapter with two mating faces, e.g. the modular connectors RJ10/11/12/45 connected to the DSUB miniature connector family 9-pin or 25-pin.

► Chapter Copper Cabling



MTP™/MPO

The MTP™/MPO cabling system impresses with its high scalability and packing density and is standardized according to IEC61754-7 and TIA604-5A. An MTP™/MPO connector has the size of a SC simplex or LC duplex connector, but with the theoretical maximum fiber density of 72 fibers, where as today's applications are based on an 8 or 12 fiber matrix. The parallel optical Ethernet services 40G (4 x 10G) and 100G (4 x 25G) use 8 fibers, 4 fibers for transmission and 4 fibers for reception, which is only available in this size in the MTP™/MPO. A MTP™/MPO connector must necessarily consist of a male and a female connector to ensure fiber centering. The adapters therefore only have the function of a mechanical holder and pin assignment. MTP™ is fully compatible with MPO. MPO means Multi Fiber Push On. MTP™ means Multi Termination Plug and is a registered trademark of US-CONEC Ltd.



► Chapter Fiber Optic Cabling

Network cabinet

Active and passive LAN components are manufactured for the 19 inch mounting option and are mounted in a 19 inch rack system. Network cabinets are designed for 19 inch assemblies and can be configured in a variety of dimensions and special requirements, such as ventilation and exhaust. See also 19 inch.

► Chapter Network and Server Cabinets

Zero modem cable

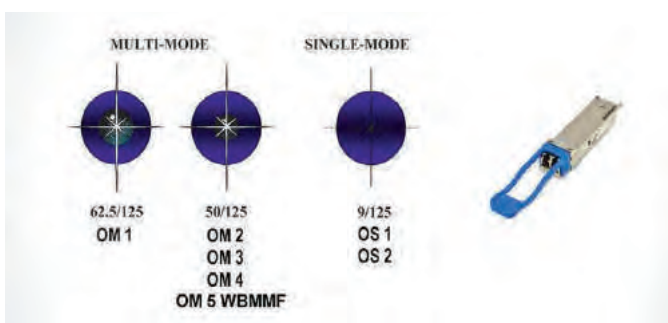
Term from the RS232 serial interface. A DSUB9 jack cable with crossed transmit and receive lines (TX/RX), for direct connection of two equivalent end devices like PCs. In LAN area for Fast Ethernet this crossing of TX/RX is called „crossover cable“.

► Chapter Multimedia

OM1/2/3/4/5

Optical Multimode Class. Multimode gradient index fibers. 62.5µm core diameter OM1, 50µm core diameter OM2/3/4/5 with increasing bandwidth/length product. These fibers are optimized for transmission in the 850nm wavelength range. The new optical cabling class OM5 offers/specifies a broadband multimode fiber, which allows a higher range and transmission speed by SWDM technology (Short Wave Division Multiplexing).

► Chapter Fiber Optic Cabling



OS1/2

Optical Singlemode Class. OS1 as standard singlemode fiber for structured cabling and city networks. Following the recommendation of ITU-T G.652.D, the full spectrum singlemode fiber has been standardized as OS2 according to ISO/IEC11801. See also G.652.D.

► Chapter Fiber Optic Cabling

Outdoor cable

Fiber cable or copper cable with special plastic for jacket material, like PE. Other different features depending on application are direct burial, longitudinal water tight, UV resistant, rodent resistant or steel ruggated armour etc.

► Chapter Fiber Optic Cabling and Copper Cabling

Patch cable industry level

RJ45 patchcables with special requirement profile for industrial quality, such as UV-resistant, oil-resistant, abrasion-resistant, suitable for drag chains, EMC-safe etc., no standard office patchcable has such special properties.

► Chapter Copper Cabling

Patch cable office

RJ45 patchcable for standard office environments, LAN networks or small data centers.

► Chapter Copper Cabling

Patchpanel

Also known as a patch bay, a defined component in structured cabling according to ISO/IEC11801. Used to connect installation cables for permanent links. The interfaces thus formed with the standardized RJ45 mating faces accept patch cables as a further standardized component for connecting or „patching“. A patchpanel or patch field is a reconnection panel that serves to connect, distribute and patch connections and can thus be used for the orderly construction of complex cable structures in buildings. Patchpanels are housed in distribution cabinets and are among the passive components of a network; active components are, for example, switches or routers. By simply replugging patchcables, they allow communication services to be easily switched on at a workstation without having to change structured cabling.

► Chapter Copper Cabling

PD

Powered Device, a term from the field of Power over Ethernet. A PoE IEEE802.3af/at/bt end device with a standardized RJ45 interface to receive data and power.

► Chapter Active Network Components

Pigtail

Core pigtail, made up on one side with a fiber plug to open end. Cable pigtail, assembled cable with a fiber plug on one side to open end. Serves to provide interfaces through detachable connections.



► Chapter Fiber Optic Cabling

Port doubler

Also called port splitter or Y-adapter, a passive component. The shared medium TP twisted pair is made up with 4 twisted pairs. One network service that use only two pairs for data transmission is for example fast Ethernet. An existing Permanent Link could thus transmit 2 x Fast Ethernet, provided a port doubler is used at both ends of the Permanent Link.

► Chapter Copper Cabling

K5123.015



Profile half cylinder DIN18252

A standardised locking cylinder for network cabinets, garage doors, server cabinets or distribution boxes. In accordance with DIN18252, these half cylinders can be exchanged or used regardless of the manufacturer.

► Chapter Network and Server Cabinets

46087.x



PS/2

Standardized interface for input devices like mouse and keyboard with the Mini DIN connector face.

PSE - Power Source Equipment

A term from the field of Power over Ethernet. A PoE IEEE802.3af/at/bt power supply unit with a standardized RJ45 interface and in the different specified power classes to send data and power. See also PoE.

► Chapter Active Network Components

PUR - Polyurethane

A plastic material e.g. for a cable outer sheath with extraordinary properties: flexibility, abrasion resistance, oil resistance.

PVC

Polyvinyl chloride, plastic material used for power supply cables, control cables or data cables. No halogen-free, low smoke and flame retardant material.

QSFP+

Parallel optical transceiver modules for 40Gbit Ethernet, multimode based on the MTP™/MPO plug-in system

► Chapter Active Network Components



QSFP28

Parallel optical transceiver modules for 100Gbit Ethernet, multimode based on the MTP™/MPO plug-in system

► Chapter Active Network Components



Qualifier

High-quality and very useful measuring device for cabling professionals. According to the limits of the structured cabling according to ISO/IEC11801, the installed transmission lines are qualified, i.e. assessed due to pass/fail. See also certifiers.

► Chapter Copper Cabling

Rack unit U

1 U = 44.45mm, see also 19 inch.

► Chapter Network and Server Cabinets

Redundant

In this context, a technically and functionally identical system, which is not necessary for normal operation, but increases or guarantees the resilience in the event of a failure. For example, a TV system for the home, which consists of two TVs, whereonly only one TV is required, but in the event of an error the second device would take over the operation without interruption.

Repeater

Repeaters are devices that reprocess or amplify the incoming signal to increase signal range.

► Chapter Multimedia

RJ45 data plug

Or: telephone plug, modular plug, data plug, network plug or Ethernet plug. Today's RJ45 connector is internationally standardized according to IEC60603-7-x and thus categorized according to the well-known grades such as Cat.5e, Cat.6 and Cat.6A.

► Chapter Copper Cabling

H7641.x



RoHS: Restriction of Hazardous Substances

The RoHS Directive, which is valid throughout Europe, pursues the clear goal of recycling or disposing of waste electrical and electronic equipment placed on the market in an environmentally friendly manner. The protection of health and the protection of the environment are our top priorities. RoHS-1: Directive 2002/95/EC, valid from 01.07.2006 RoHS-2: Directive 2011/65/EU, valid from January 2013 RoHS-3: Directive 2015/863/EU, supplement to RoHS-2 By 22.07.2019, in addition to four other prohibited substances, the scope of application will be extended to almost all electrical products. Electrical and electronic equipment has been divided into 11 categories in Directive 2011/65/EU. Category 11 defines other electrical and electronic equipment, including all assembled cables with live conductors, and comes into force on 22.07.2019. The list in RoHS-2 contains six prohibited substances, RoHS-3 another four, so a total of 10 prohibited substances are in focus. In Germany, the Electrical and Electronic Equipment Substances Ordinance (ElektroStoffV) implements the RoHS directives on the prohibition of hazardous substances in electronic devices. The CE marking obligation includes the unique company address of the manufacturer or distributor on the product.

RS232

The standard EIA-232, RS232, CCITT V.24 describes the serial connection between a data terminal equipment (DTE) and a data communication equipment (DCE) transmission device with its electrical and mechanical properties. Although the standard only defines this type of connection, the RS232 interface has long established itself as a general standard for serial data transmission over short distances. The RS232 standard usually defines DSUB miniature plugs 9-pin or 25-pin as the standard plug-in connection. As with all serial transmission methods, the achievable distance between two RS232 devices depends on the cable used and the baud rate. As a guideline, a distance of 15m to 30 meters should not be exceeded.

Safety glass

A glass pane breaks into very small shards, which minimizes the risk of injury in the event of damage. The certification of ESG glass is always marked with an imprint.

► Chapter Network and Server Cabinets

SATA

Serial Advanced Technology Attachment, a standardized serial PC interface for hard drives.

ST plug

This AT&T-specified fiber optic connector is suitable for both singlemode and multimode fibers, as well as versions for plastic optical fibers. The term BFOC/2.5 according to IEC-874-10 was often used: Bayonet Fiber Optic Connector with 2.5mm ferrule diameter. ST connector (Straight Tip) is widely used in Local Area Networks (LAN) or Metropolitan Area Networks (MAN). The bayonet lock and a sturdy metal body characterize the connector. In active components, increasingly displaced from the market by the LC plug.



► Chapter Fiber Optic Cabling

Server cabinet

Network cabinet with optimized dimensions for network devices such as High Class Server or Blade Server. See also network cabinet.

► Chapter Network and Server Cabinets

SFP - Small Form Pluggable

Formerly called MiniGBIC, optical transceiver modules are plugged into SFP slots. Modules are available for fiber optics with LC duplex port and copper TP with RJ45 port for the Ethernet standards Fast Ethernet and Gigabit, SFP+ for 10Gigabit and 25Gigabit.



► Chapter Active Network Components

SFP+

Optical transceiver modules for 10Gbit Ethernet and 25Gigabit, based on LC duplex connector system.

► Chapter Active Network Components

Shielding

Metallic shell to reduce electromagnetical interferences for error free data transmission, otherwise electromagnetic radiation of data cables would be minimized. Depending on quality and application area cable manufacturer include different conductive metal materials.

► Chapter Copper Cabling and Multimedia

Surge protection

Term for the protection of sensitive electronic circuits against excessive supply voltages, which can have destructive effects, e.g. in the event of lightning.

SNMP - Simple Network Management Protocol

A network protocol that can be used for remote maintenance and error monitoring of network components used. SNMP allows you to use management programs to monitor and control switches from different manufacturers.

► Chapter Active Network Components

Splice box

Term from the field of fiber optics, also called splice distributors. A housing, usually for 19 inch racks, for mounting and fastening external fiber cables, trunk cables, splice cassettes, pigtails and fiber optic adapter. This splice distributor is a defined component of ISO/IEC11801 structured cabling.

B71901.240M4



► Chapter Fiber Optic Cabling

Splicing device

Splicing is the term for fusion two fibers. Splicing equipment is very high quality and expensive. The necessary melting temperature of the fiber is generated in the splice device by a high electrical voltage, therefore also called arc splicing or fusion splicing. Splicing has the highest quality of non-removable connections.

VIEW8+



► Chapter Fiber Optic Cabling

Splitter

this term for an active device in the Multimedia world means a multiplier of the signal input.

For example, a HDMI splitter with one input and 8 outputs distributes an HDMI Signal to 8 HDMI monitors. Both analog audio or video signals can be split, as well as any audio/video signals in digital form. Multimedia Image: IDATA-HDMI2-4K8HDR



► Chapter Multimedia

Stripping tool

Special tool for stripping plastic jacket of cables in a defined length, doesn't matter if copper cable or fiber cable.

DCW1008

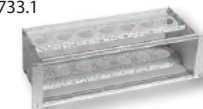


► Chapter Fiber Optic Cabling, Copper Cabling and Multimedia

Subrack

Term for a standardized 19"-rack acc. to DIN 41494 19"-system with 84 HP. See also 19 inch.

53733.1



► Chapter Network and Server Cabinets and Fiber Optic

SVGA

Super Video Graphics Array, analog video standard, see also VGA.

► Chapter Multimedia

S

SWDM - Short Wave Division Multiplex

WDM is known as a transmission technology for long-distance traffic, but with single mode fibers. A few years ago, ISO/IEC adopted a new multimode class OM5, which was defined for the transmission windows 850nm, 880nm, 910nm and 940nm with the corresponding modal bandwidth. Furthermore, OM5 is backwards compatible with OM4/3/2. The Team SWDM Transceiver plus OM5 multimode fiber allows transmission rates of up to 100Gbps with only two fibers (LC connection) and distances of up to 150m in the LAN range.

► Chapter Fiber Optic Cabling

Switch

Switching hub, operator, distributor. A central and essential device for communication in Ethernet Local Area Networks. Each workstation on the LAN must be physically connected to the switch. The Twisted Pair medium is contacted with the RJ45 plug-in face. Various Ethernet transmission speeds coupled with Power over Ethernet are usually standard in 19 inch format.

► Chapter Active Network Components

FOS-3110



T

TAE

Standardized measure for switch program manufacturers for plastic covers, see also design capable.

► Chapter Copper Cabling

Terminator

Terminators are made of same impedance value as copper transmission cable to avoid spectral reflections at the end of a bus cable. The Ethernet in the nineties, also called 10Base5, 10Base2 or Cheapernet genannt, was realized with a special kind of coaxial cable as a bussystem and 50 Ohm impedance. Both ends of this bussystem had to be terminated with 50 Ohm. If not, spectral reflections occur at both ends with the result of big jamming for transmitted signals.

Chapter Multimedia

52524.1



Thunderbolt 3

The well-known Thunderbolt 2 connector based on the Mini DisplayPort interface, which is mainly found on Apple devices, will be replaced by a Thunderbolt 3 interface with type C connector in the future. This is an interface that can simultaneously transport video/audio, data, USB and power.

► Chapter Multimedia

K5283



U

TM11/21/31

Series of shielded RJ45 connectors for structured cabling according to ISO/IEC11801. Highest manufacturing precision and impressive electrical and mechanical properties characterize this family of connectors from the Japanese global company Hirose.

► Chapter Copper Cabling

H7640.x

H7641.x

H7642.x



TPE - Thermoplastic elastomer

A very flexible plastic material for e.g. extremely smooth patch cables.

► Chapter Copper Cabling

Transceiver

Compound word of transmitter and receiver. Today, these modules are used e.g. in Ethernet switches. The SFP, Small Form pluggable, is in high demand regarding LAN sector and allows easy adaptation to the medium multimode, single mode or twisted pair. See also MiniGBIC or SFP.

► Chapter Active Network Components

Trunk cables

are an option for the required application regardless of the selected medium in fiber optics, twisted pair or even in the form of coax cables. A trunk transports a variety of communication channels with a wide variety of transmission protocols over a corresponding distance. Example: a medium-sized data center from point A to point B over 100m with 144 channels transmitting the Ethernet 25Gbit/s protocol. These so-called backbones save space, provide an overview and even reduce fire loads. There are different connectors to choose from for each medium, but above all they should have the advantage of packing density.

► Fiber optic cabling and Copper cabling



Twisted Pair

Term for a cable structure with roped pairs. A standardized installation cable of category 5/6/6A/7/7A/8 has 4 sealed pairs with different twist pitches. Twisting minimizes the electromagnetic interference between the pairs in this symmetrical signalling technology.

► Chapter Copper Cabling

99978.x



Type C

In 2014, the new Type C connector was released at the same time as the USB3.1 standard. The Type C connection is very versatile, which can meet the high performance requirements of the USB3.1/3.2 and can be used for other applications at the same time. The USB3.x standard is divided into two generations: Cable assemblies for up to 5Gbps, which also applies to the older USB3.0 standard, can now also be named USB3.1 Generation1. Cable assemblies designed for 10Gbps will be renamed to USB3.1 Generation2. Other Type C cable variants are: Alternate Mode, cable assemblies with type C connectors switched to alternative operating mode. This allows you to create cables that support DisplayPort, HDMI or MHL. This interface can simultaneously transport video/audio, data, USB and power.

► Chapter Multimedia

Ultra HD - Ultra High Density

UHD defines a digital video format with a pixel resolution of 3840 x 2160, double the size of Full HD. In the area of monitoring, a guarantee for razor-sharp images or films.

► Chapter Multimedia

UNC - Unified Coarse Thread

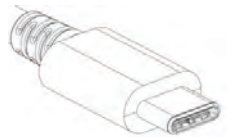
A thread standard commonly used in America and Canada based on inch dimensions. UNC and the European metric thread standard are not compatible.

► Chapter Multimedia

USB - Universal Serial Bus

A serial interface for the consumer mass market. Fast data transfer and power supply are provided by USB. On the market since 1996, really widespread since 1998 with the 1.1 version and support in Windows operating systems. Has been used since the Market launch regularly renewed with new plugs and functions. That's why USB has displaced almost every other variant in the multimedia sector. Standards: USB1.0 12Mbit/s, power supply 500mA max. USB2.0 480Mbit/s, power supply 500mA max. USB3.0 5000Mbit/s, power supply 900mA max. Since 2014 there is the USB3.1/3.2 version, twist-proof plug by Type-C connector. With 10Gbit/s (3.2) and a power supply of up to 100W, this is a significant increase in performance compared to USB3.0. When the USB3.2 standard 2019 was released, it was already clear that we would get another new USB standard a short time later. An important goal for the USB4 standard has been to bring together the USB and the Thunderbolt standard, which is so widespread in the Apple world. USB4 cables now have the possibility to be fully compatible with the Thunderbolt3 interface. However, it must be ensured that they have a chipset that allows this compatibility. A detailed table can be found in the chapter below. See also Type C.

► Chapter Multimedia

**UAE**

Standardized measure for switch program manufacturers for plastic covers, see also design capable.

VGA - Video Graphics Array

Analog video standard introduced by IBM into the PC market in 1987. Connector of this interface is a D-Sub miniature connector in high density format with 15 pins, HDSUB15. Predominant use of VGA/SVGA cables when using older devices (projectors, displays)

► Chapter Multimedia

Video Splitter

Video splitter multiplies the video input signal to multiple output signals. This makes it possible to display one image signal on several displays at the same time.

► Chapter Multimedia

Video Switch

A video switch provides the possibility between multiple video inputs in relation to one video output.

► Chapter Multimedia

VLAN - Virtual Local Area Network

A port-based virtual network is distinguished from manageable switches or a dynamic VLAN of multiple switches of an entire network structure, the standardized tagged VLAN according to IEEE 802.1Q.

► Chapter Active Network Components

WDM

Wave Division Multiplex, see CWDM and DWDM.

► Chapter Fiber Optic Cabling

Web Smart, Web managed

Label for Ethernet switches with web interface for internal management functions.

► Chapter Active Network Components

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20434.1	307	2L-5206UP	296	37580.1	120	39964.1	102	46051.1	176
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28703.1	305	34816.1	308	37735SW.8	150	46005.2	173	46091.100	181
28706.1	305	37483.1	122	37736.12	150	46005.2F	173	46092.100	181
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28753.1	305	37487.1	128	37736SW.8	150	46006.2	173	46095.100	181
28756.1	305	37488.1	122	37737.12	150	46006.2F	173	46096.100	181
28759.1	305	37489.1	128	37737.8	150	46007.1	172	46097.100	181
28762.1	305	37489.2	128	37737SW.12	150	46007.2	173	46098.100	181
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29017.1	305	37503.1	128	38018.1-100	123	46014.1	174	46106.100	181
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03483.2	88	06720.xOM3	74	08201.x	72	08341.xOM4	72	08808.x	72
03483.2OM5	88	06720.xOM4	74	08201.xOM3	72	08342.x	72	08809.x	72
03484.2	88	06721.x	74	08201.xOM4	72	08342.xADQ	73	08810.x	72
03491.2	88	06722.x	74	08211.x	72	08342.xADQOM3	73	08811.x	72
03603.2	88	06751.x	74	08212.x	72	08342.xOM3	72	08811.xADQ	73
03623.2	88	06751.xOM3	74	08214.x	72	08342.xOM4	72	08814.x	72
03681.2	88	06751.xOM4	74	08221.x	72	08342LxxOM3	71	08814.xADQ	73
03685.2	88	06752.x	74	08221.xADQOM3	73	08342LxxOM4	71	08816.x	72
03685.2OM5	88	06752.xOM3	74	08221.xOM3	72	08344.x	72	08818.x	72
03686.2	88	06752.xOM4	74	08221.xOM4	72	08344.xADQ	73	08820.x	72
03686.2OM5	88	06753.x	74	08223.x	72	08344.xADQOM3	73	08821.x	72
03687.2	88	06754.x	74	08223.xADQ	73	08344.xOM3	72	08821.xADQ	73
06013.x	77	06754.xOM3	74	08223.xADQOM3	73	08344.xOM4	72	08822.x	72
06013.x	82	06755.x	74	08223.xOM3	72	08351.x	72	08824.x	72
06023.x	77	06761.x	74	08223.xOM4	72	08352.x	72	08826.x	72
06023.x	82	06771.x	74	08231.x	72	08360.x	72	08827.x	72
06122.x	74	06771.xOM3	74	08241.x	72	08381.x	72	08828.x	72
06122.xOM3	74	06771.xOM4	74	08241.xADQOM3	73	08381.xADQOM3	73	08828.xADQ	73
06122.xOM4	74	06772.x	74	08241.xADQOM4	73	08381.xOM3	72	08829.x	72
06123.x	74	06772.xOM3	74	08241.xOM3	72	08381.xOM4	72	08829.xADQ	73
06123.xOM3	74	06772.xOM4	74	08241.xOM4	72	08382.x	72	08830.x	72
06131.x	74	06773.x	74	08242.x	72	08382.xADQ	73	08831.x	72
06131.xOM3	74	06773.xOM3	74	08242.xADQ	73	08382.xADQOM3	73	08831.xADQ	73
06131.xOM4	74	06773.xOM4	74	08242.xADQOM3	73	08382.xOM3	72	08832.x	72
06141.x	74	06774.x	74	08242.xOM3	72	08382.xOM4	72	08832.xADQ	73
06353.x	77	06774.xOM3	74	08242.xOM4	72	08382.xOM5	72	08833.x	72
06353.x	82	06775.x	74	08251.x	72	08390.x	72	08834.x	72
06363.x	77	06775.xOM3	74	08252.x	72	08390.xADQ	73	08835.x	72
06363.x	82	06779.x	74	08281.x	72	08390.xADQOM3	73	08840.x	72
06413.x	77	06781.x	74	08283.x	72	08390.xOM3	72	08841.x	72
06413.x	81	06890.x	74	08291.x	72	08390.xOM4	72	08842.x	72
06423.x	77	06891.x	74	08301.x	72	08391.x	72	08844.x	72
06423.x	81	06892.x	74	08301.xOM3	72	08391.xADQ	73	08845.x	72
06511.x	74	07013.x	77	08301.xOM4	72	08391.xADQOM3	73	08852.x	72
06511.xOM3	74	07013.x	82	08301.xOM5	72	08391.xOM3	72	08855.x	72
06511.xOM4	74	07353.x	77	08302.x	72	08391.xOM4	72	09711.x	72
06512.x	74	07353.x	82	08302.xADQ	73	08392.x	72	09711.xADQ	73
06512.xOM3	74	07413.x	77	08302.xADQOM3	73	08392.xADQ	73	09711.xADQOM3	73
06512.xOM4	74	07413.x	81	08302.xOM3	72	08392.xADQOM3	73	09711.xOM3	72
06514.x	74	07413.xx-1.2	79	08302.xOM4	72	08392.xOM3	72	09711.xOM4	72
06521.x	74	07413FT.x	79	08303.x	72	08392.xOM4	72	09721.x	72
06522.x	74	08121.x	72	08303.xADQ	73	08393.x	72	09731.x	72
06523.x	74	08121.xADQ	73	08303.xADQOM3	73	08393.xADQ	73	09731.xADQ	73
06531.x	74	08122.x	72	08303.xOM3	72	08393.xADQOM3	73	09731.xADQOM3	73
06531.xOM3	74	08122.xADQ	73	08303.xOM4	72	08393.xOM3	72	09731.xOM3	72
06531.xOM4	74	08123.x	72	08303.xOM5	72	08393.xOM4	72	09731.xOM4	72
06532.x	74	08123.xADQ	73	08303L1000M3	97	08416.x	72	09741.x	72
06532.xOM3	74	08124.x	72	08303L1000M4	97	08417.x	72	09751.x	72
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06534.xOM3	74	08131.x	72	08303L500M3	97	08421.xADQ	73	09751.xOM3	72
06535.x	74	08131.xADQ	73	08303LxxOM3	71	08422.x	72	09751.xOM4	72
06541.x	74	08132.x	72	08303LxxOM4	71	08428.x	72	09761.x	72
06542.x	74	08132.xADQ	73	08307.x	72	08430.x	72	09811.x	74
06545.x	74	08133.x	72	08307.xADQ	73	08430.xADQ	73	09811.xOM3	74
06551.x	74	08133.xADQ	73	08307.xADQOM3	73	08431.x	72	09811.xOM4	74
06551.xOM3	74	08141.x	72	08307.xOM3	72	08432.x	72	09821.x	74
06551.xOM4	74	08141.xADQ	73	08307.xOM4	72	08432.xADQ	73	09831.x	74
06561.x	74	08143.x	72	08311.x	72	08435.x	72	09831.xOM3	74
06562.x	74	08143.xADQ	73	08312.x	72	08438.x	72	09831.xOM4	74
06570.x	74	08144.x	72	08321.x	72	08439.x	72	09841.x	74
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PRO-1868GR.G1SV	185	PRO-DCH80B.GR	190	PRO-SOB10V.TS	192	SB-FP-65C-D-V-OM3	49	VSBA-SW-WINKEL	46
PRO-1888GR.G1SV	185	PRO-DCH80B.TS	190	PRO-SOB12B.GR	192	SB-FP-65C-D-V-OM4	49	VSBA-SW-WINKEL	46
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PRO-2466GR.G1SV	185	PRO-DCH82B.TS	190	PRO-SOB12P.GR	192	SB-FP-65C-S-OM3	49	VSBA-SW-WINKEL	46
PRO-2468GR.G1SV	185	PRO-DCH86B.GR	190	PRO-SOB12P.TS	192	SB-FP-65C-S-OM4	49	VSBA-SW-WINKEL	46
PRO-2488GR.G1SV	185	PRO-DCH86B.TS	190	PRO-SOB12V.GR	192	SB-FP-65C-S-OS2	49	VSBA-SW-WINKEL	46
PRO-3360GR.G1SV	185	PRO-DCH88B.GR	190	PRO-SOB12V.TS	192	SB-FP-S-12SC-D-V-OM3	49	VSBA-SW-WINKEL	46
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PRO-4260TS.OD	186	PRO-DCH88TS	190	PRO-SOE200F.TS	192	SB-FP-S-24SC-D-V-OM3	49	VSBA-SW-WINKEL	46
PRO-4260TS.P1	188	PRO-DCH88TS	190	PRO-SOE200N.GR	192	SB-FP-S-24SC-D-V-OM4	49	VSBA-SW-WINKEL	46
PRO-4262GR.OD	186	PRO-DCH88TS	190	PRO-SOE200N.TS	192	SB-FP-S-24SC-D-V-OS2	49	VSBA-SW-WINKEL	46
PRO-4262TS.OD	186	PRO-DCH88TS	190	PRO-SOK60PB.GR	191	SB-FP-S-24SC-S-OM3	49	VSBA-SW-WINKEL	46
PRO-4262TS.P1	188	PRO-DCH88TS	190	PRO-SOK60PB.TS	191	SB-FP-S-24SC-S-OM4	49	VSBA-SW-WINKEL	46
PRO-4266GR.OD	186	PRO-DCH88TS	190	PRO-SOK62PB.GR	191	SB-FP-S-24SC-S-OS2	49	VSBA-SW-WINKEL	46
PRO-4266GR.G1SV	185	PRO-DCH88TS	190	PRO-SOK62PB.TS	191	SB-FP-S-65C-D-V-OM3	49	VSBA-SW-WINKEL	46
PRO-4266TS.OD	186	PRO-DCH88TS	190	PRO-SOK66PB.GR	191	SB-FP-S-65C-D-V-OM4	49	VSBA-SW-WINKEL	46
PRO-4268GR.OD	186	PRO-DCH88TS	190	PRO-SOK66PB.TS	191	SB-FP-S-65C-D-V-OS2	49	VSBA-SW-WINKEL	46
PRO-4268GR.G1SV	185	PRO-DCH88TS	190	PRO-SOK68PB.GR	191	SB-FP-S-65C-S-OM3	49	VSBA-SW-WINKEL	46
PRO-4268TS.OD	186	PRO-DCH88TS	190	PRO-SOK68PB.TS	191	SB-FP-S-65C-S-OM4	49	VSBA-SW-WINKEL	46
PRO-4280GR.OD	186	PRO-DCH88TS	190	PRO-SOK80PB.GR	191	SB-FP-S-65C-S-OS2	49	VSBA-SW-WINKEL	46
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PRO-4280TS.OD	186	PRO-DCH88TS	190	PRO-SOK82PB.TS	191	SC353501J2M30-BL	333	WGB-1906GR.60	221
PRO-4280TS.P1	188	PRO-DCH88TS	190	PRO-SOK86PB.GR	191	SC353501J3M30-BL	333	WGB-1906TS.45	221
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PRO-4282GR.OD	186	PRO-DCH88TS	190	PRO-SOK88PB.TS	191	SFP1000LX	332	WGB-1906WS.60	221
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PRO-4282TS.OD	186	PRO-DCH88TS	190	PRO-SOK88PP.TS	191	SFP1000SX	332	WGB-1909GR.60	221
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PRO-4286TS.OD	186	PRO-DCH88TS	190	PRO-TST12	196	SFP-10G-SR-BO	332	WGB-1912TS.45	221
PRO-4288GR.OD	186	PRO-DCH88TS	190	PRO-TUR426G1.GR	187	STHD2-4-12A	36	WGB-1912TS.60	221
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PRO-4288GR.G1SV	185	PRO-DCH88TS	190	PRO-TUR426P1.GR	187	STHD2-6-12A	36	WGB-1912WS.60	221
PRO-4288TS.OD	186	PRO-DCH88TS	190	PRO-TUR426P1.TS	187	STHD2-6-12H	36	WGB-1915GR.45	221
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