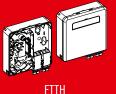


# DATA NETWORK TECHNOLOGY 2023





DATA CENTRE



FIBRE OPTIC TECHNOLOGY



DATA CABLE FIBRE OPTIC & COPPER



**COPPER DATA NETWORKS** 



NETWORK CABINETS



TELECOMMUNICATION

THE GERMAN DEVELOPER AND PRODUCER FOR OUTSTANDING NETWORK-PERFORMANCE

### THE GERMAN **DEVELOPER AND PRODUCER** FOR OUTSTANDING NETWORK-PERFORMANCE

#### Edition No. 2, May 2023

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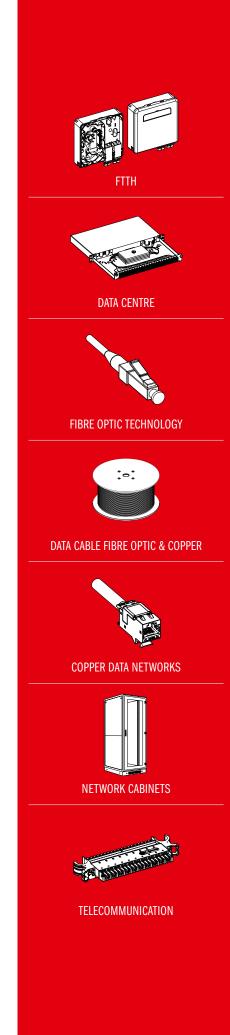
For more than 25 years we, as a German medium-sized producer, have been developing, manufacturing and distributing passive network system technology in uncompromising quality, exactly according to the needs of our customers.

We are now one of the leading suppliers of connection and cabling solutions in the Telecommunications.

As a German brand manufacturer, we regularly exceed the required minimum standards and develop market-driven innovations, both for the structured cabling in buildings and data centres, as well as for national and international telecommunications providers.

Thanks to our own development, production and storage we respond particularly quickly and individually to customer wishes and find a reliable solution for almost all requirements from our comprehensive range of system components. Furthermore, we also develop and produce customer-specific products and customized solutions, in case our standard components should not fit. Based on our expertise, our experience and our highly qualified team, we offer the most advantageous solution in terms of technology, price and time for our customers. This includes sound advice and uncomplicated service. A trusting relationship with our customers is more important to us in today's fast-moving times than short-term profits.





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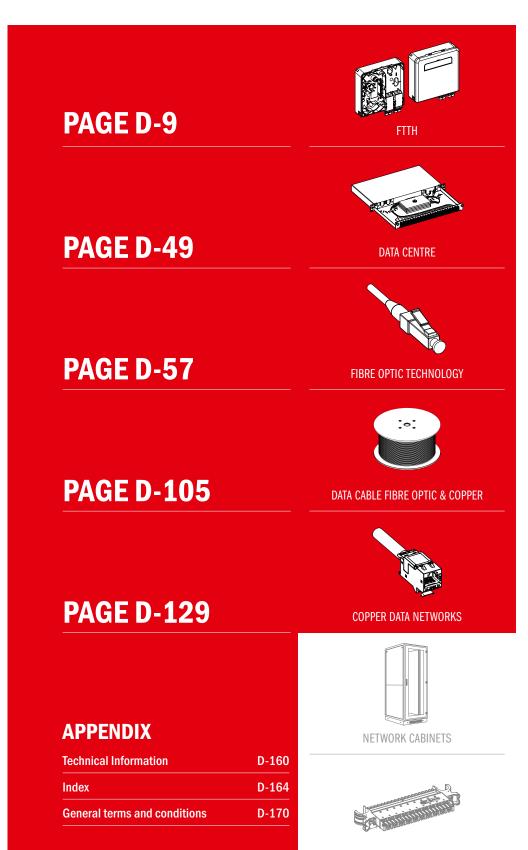
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### DATA NETWORK TECHNOLOGY OVERVIEW



TELECOMMUNICATION



### Your developer and manufacturer of passive network system technology

### **Cabling and FTTH for homes and buildings**

Apart from proven copper-based cabling of buildings, more and more connections are now being made with fibre optic technology, which has very high bandwidth reserves. No matter what technology is used, at CobiNet you will find smart products with a top price-performance ratio for any use case from flats to high-rise buildings.

Our extremely reliable copper and fibre optic based connectivity solutions enable network connections with high performance reserves. Our components are not only easy to mount and have a compact design but they are also compatible with the leading manufacturers of switch ranges and can therefore be fully integrated. With our FttH fibre optic solutions, we also offer a cabling solution that is sure to meet the bandwidth needs of the coming years.

### **Broadband and Phone**

Higher data rates and faster internet access for customers revolutionised the telecommunications market over the last years. Today, with our patented CobiNet LSA-HD<sup>®</sup> bar and its successors, we are setting the standard for copper-based broadband access and are used as standard by multiple major international telecommunications service providers in their transmission networks.

Currently, however, a technological shift from copper to fibre optic based broadband connections is taking place to fully meet the ever increasing demands of high speed internet. We used decades of technological experience to enable new fibre optic based solutions for development to the end user, whether in the main distributor, power distributor, multifunctional enclosure of the telecommunications provider, office building or home.



#### **Data Centre**

Limited space, high power density, cooling current-optimised areas and the extremely high bandwidth requirements of modern data centres demand a high packing density of components and systems. This is particularly achieved through parallel optical connectivity systems based on the MTP<sup>®</sup>/MPO connector which in future will support bandwidth needs of up to 400 Gbit.

Nevertheless, manageability for expansion, conversion and migration of new applications and technology need to be ensured. High density (HD) solutions from CobiNet meet these requirements: pre-assembled, tested and ready-to-use with an excellent price-performance ratio. Moreover, our efficient CobiNet RS18 rack system features an additional third 19" installation level in roof and base and thus supports the installation of components in environments with high packing density.

#### Industry 4.0

The digitalisation of industry 4.0 demands time-saving, reliable and flexible cable routings for the cabling of manufacturing buildings, which offer a high level of investment protection especially for pre-assembled cabling components. High degrees of protection of the products defy even the harshest environments. With our fibre optic and copper based products with high power reserves we support fail-proof transmission of production and measurement in real-time.

#### Office

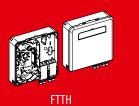
Increasingly powerful network switches and WLAN access points as well as the need for the greatest possible flexibility and futureproofing characterise modern office networks. CobiNet offers a comprehensive program of system components in office buildings for structured cabling with copper and fibre optics. Our RS18 cabinet system provides efficient solutions for distribution areas. Moreover, the cost-neutral door options of the network cabinet offer the greatest possible flexibility and cost control, even if the spatial conditions in the distribution area should change during the course of the project.

# THE COBINET ASSEMBLY SERVICE FOR YOUR PROJECT

- Shorter project durations through projectspecific assemblies in the factory, e.g. network cabinets, floor tank inserts and cable bundles (trunks)
- Minimised error costs through assembly under industrial conditions
- Optimises and saves your resources in times of staff-shortage
- Facilitated construction-site logistics and optimised waste disposal
- Highest quality through GHMT PvP-certified components

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DATA CENTRE



FIBRE OPTIC TECHNOLOGY



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COPPER DATA NETWORKS



NETWORK CABINETS



TELECOMMUNICATION

# THE COBINET FTTX SOLUTION

## CobiNet – Because simple is simply good.

### Simple solutions and expert advice from a technology leader.

For more than 15 years, CobiNet has been offering first-class FttC solutions and expert advice for costumers - across the entire process chain from installer to large carrier. With our new products and services, we use this wealth of experience to offer you a process-safe FttX solution. Our products are suitable for both subsidised and selfsupported expansion. Through development and production in our own factory we meet our high quality demands from the start. We know what matters in the project and assist you with experience and competence even during the planning phase.





### FttN in the main distributor (PoP)

Space-saving solutions. Distribution frame OD22 and connectivity components for safe operation with high port densities in point of presence (PoP) installations.

Page D-12

### 2 FttC on the street

Robust, weight-optimised fibre optic network distributors made of glass fibre reinforced polyester and fibre optic solutions for existing copper based street distributors.

Page D-21 to D-29

### **3** FttB in the cellar

Fibre optic distribution enclosures for the building entrance of residential and commercial buildings. Optional access protection by profile half cylinder - fully integrable into your locking system.

### Page D-32 to D-45

### FttH in the building

The pre-assembled system including FttH termination socket for a quick installation by one person. Simply unroll, insert, fix - done.

### Page D-31

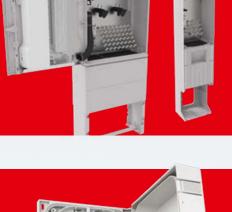
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### FttH in the flat

Maximum flexibility - The versatile optical termination socket for every application like wall, switch box and DIN rail.

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8









### **ODF DISTRIBUTION RACK OF20**

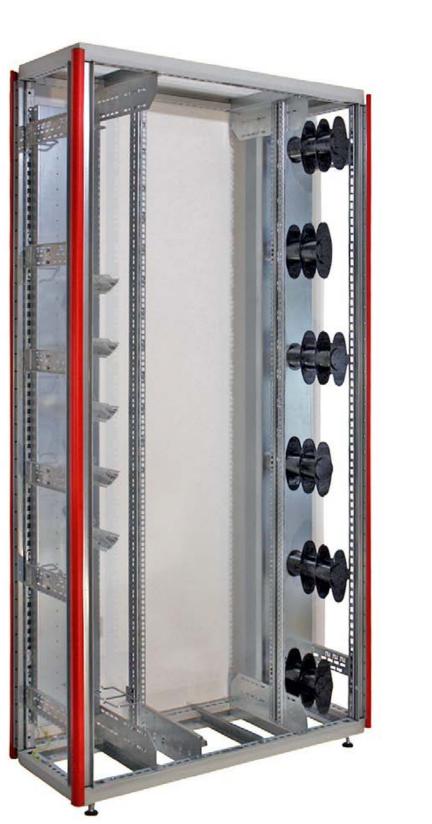
#### **ODF Distribution cabinet OF20**

- 19" rail in front and rear area for mounting of splice and distribution boxes with front or rear mounting
- 19" rails depth-adjustable
- · Suitable for the installation of active and passive technology
- · Further distribution racks can be added laterally
- Fibre capacity up to 3000 fibres
- Patch cable management through lateral deflection rollers
- · Support of cables and micro pipes with hammered brackets
- · Cable guides for incoming cables
- · Roof openings with brush cover
- · Split door with 3-point locking and swing lever lock for profile half cylinders
- · Side walls and rear wall closed by sash fastener
- Levelling feet to compensate for uneven floors
- · Incl. potential equalization set
- Available widths: 900 mm and 1000 mm
- Material: steel plate
- Colour: RAL 7035 (light grey)

Article	Width	Height	Depth	Article-No.	Fig.
ODF distribution cabinet OF20	1000 mm	42 RU	400 mm	123351	1
Two-part door for OF20		42 RU		123353	
Side panel left for OF20		42 RU		123354	
Side panel right for OF20		42 RU		123355	
Back panel for OF20		42 RU		123356	
Roof for OF20				123357	
ODF cabinet OF20	900 mm	42 RU	400 mm	124788	
Door for ODF cabinet OF20		42 RU		124789	
Left side wall for ODF cabinet OF20		42 RU		124790	
Back wall ODF cabinet OF20		42 RU		124792	
Roof for ODF cabinet OF20				124793	
ODF distribution cabinet OF20	1000 mm	24 RU	400 mm	123352	
Two-part door for OF20		24 RU		123358	
Side panel left for OF20		24 RU		123359	
Side panel right for OF20		24 RU		123360	
Back panel for OF20		24 RU		123361	
Roof for ODF cabinet OF20				123362	

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

FTTH ODF DISTRIBUTION RACK OF20



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Application example



## SWING SPLICE ENCLOSURE SP22-HD, 1RU

#### **ODF Swing Splice Enclosure SP22-HD**

- Splice enclosure for dividing the incoming fibre optic cable into individual fibres for further distribution
- For installation in the rear or front 19" level of the ODF distribution rack or network cabinet
- Easy modification of mounting variants in the front or rear 19" level thanks to rotatable mounting brackets
- · Drawers closing securely thanks to integrated magnetic locks
- Safe and easy opening and closing drawers with integrated magnetic lock
- Preparation of labelling before installation with optionally available A4 printer label sheets incl. Excel template
- Reduced risk of crushing the patch cables thanks to patch cable cover and optimised cable routing when fully loaded
- · Easy processing of fibres during initial installation and extensions thanks to fold-down splice cassettes
- · Pigtails inserted in splice cassettes ready for splicing
- For up to 4 splice cassettes per drawer
- Incl. protective tubes for fibre optic cable: 4x2.5 m , d=10 mm
- Height: 1 RU (44.45 mm)
- Width: 19" (482.6 mm)
- Depth: 280 mm
- Weight: approx. 4 kg
- · Material: Body: sheet steel, powder-coated; drawers: Aluminium, powder-coated
- Colour: RAL 7035 (light grey)

Article	Article-No.	
ODF swing splice enclosure SP22-HD, pre-loaded with 48 x LC-DX/APC 8° adapters	126579	



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FTTH

### **SWING SPLICE ENCLOSURE SP20**

### **ODF** swing splice enclosure SP19, unequipped

- Empty enclosure for splitting the incoming fibre optic cable to the individual fibres for further distribution
- For installation in the front 19" rail of ODF distribution rack OF20 or a 19" network cabinet
- Enclosures without adapter holder
- Incl. 4 splice cassettes UC19-824
- + 19" (482.6 mm), 2 RU, front panel hinges sideways to the right
- Installation in the front 19" rail of CobiNet ODF 0F20
- Dimensions (WxHxL): 482.6x88x340 mm
- Material: steel plate
- Colour: RAL 7035 (light grey)

### **ODF Swing splice enclosure adapter holder SP19**

- For up to 96 LC-DX, SC-SX or E-2000® SX adapter
- Material: steel plate
- Colour: RAL 7035 (light grey)

Article	Adapter	Adapter count	Article-No.	
Adapter plate	SC-SX	96	123367	
Adapter plate	LC-DX, SC-SX	48	123368	
Adapter plate	E-2000®-SX	48	123370	

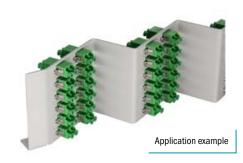
**ODF Swing splice enclosure SP19, equipped** 

- SP19 equipped with adapter and pigtails
- For installation in the front 19" rail of ODF distribution cabinet OF20 or a 19" network cabinet
- + 19" (482.6 mm), 2 RU, front panel hinges sideways to the right
- Distribution of fibre optic cable to the individual fibres for further distribution
- Installation in the front 19" rail of CobiNet ODF

- Dimensions (WxHxL): 482.6x88x340 mm
- Material: steel plate
- Colour: RAL 7035 (light grey)

Adapter	Polish	Count	Fibre quality	Article-No.
E-2000 <sup>®</sup> -SX	APC 8°	48	0S2, G.657.A2	123373
LC-DX	APC 8°	48	0S2, G.657.A2	123371









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### **ODF-SPLICE ENCLOSURE SB20**

#### **ODF Splice enclosure SB20, unequipped, extendable**

- Enclosure for splitting the incoming fibre optic cable to the individual fibres for further distribution
- Installation in rear 19" rails in the ODF distribution cabinet OF20
- Telescopic pull-out
- For 19" (482.6 mm) or ETSI mounting
- Dimensions (WxHxD):
- 1 RU: 482.6x44x 275 mm
- 3 RU: 482.6x132x275 mm
- 4 RU: 482.6x176x275 mm
- Material: steel plate
- Colour: RAL 7035 (light gray)



Article	Rack unit	Article-No.	Fig.	-
ODF Splice box SB20, up to 2 cassettes	1	123376	1	
ODF Splice box SB20, up to 6 cassettes	3	123378		
ODF Splice box SB20, up to 8 cassettes	4	123379		1- Contraction

#### **ODF Splice cassette SB20, unequipped**

- Incoming fibre optic cable to the individual fibres for further distribution
- · For installation on telescopic pull-out of ODF splice box SB20
- Designs as: splice patch cassette, splice cassette, patch cassette, splitter adapter cassette and splitter cassette
- Dimensions (WxHxL): 350x20x210 mm
- Colour: similar to RAL 7035 (light grey)



Article	Number of adapter	Splitter	Fibres count	Article-No.	Fig.
Splice-, Patch cassette for heatshrink protection and LC-DX, SC-SX or E-2000 $^{\circledast}\mbox{-}SX$	12	0	24	123380	2
Patch cassette for LC-DX or SC-SX	12	0	24	123381	
Splitter patch cassette, 4 splitter, 12 adapter LC-DX, SC-SX	12	4	12	123383	
Splitter cassette	0	16	0	123384	

### FTTH SR 20 SUBRACK

### Subrack SR20, unequipped

- 19" (482.6 mm), 3 RU, for up to 12 slots
- For installation in the front 19" rail of ODF distribution rack OF22 or a 19" network cabinet
- Incl. cable management and excess length storage 1 RU
- Incl. floor and roof sheet
- Subrack with up to 84 TE can be used
- Material: steel plate
- Colour: RAL 7035 (light grey)
- Dimensions (WxHxL): 482.6x132x340 mm



Article	Article-No.
Subrack SR20, unequipped	123295

### Slide-in cassette for subrack SR20, equipped

- Slide-in cassette for subrack SR20, equipped with adapter and pigtails
- 7 TE wide
- Material: steel plate with plastic splice cassette
- Colour: RAL 7035 (light grey)

Article	Polish	Fibre quality	Article-No.	Fig.
Silde-in cassette E-2000®-SX	APC 8°	0S2, G.657.A2	123303	
Silde-in cassette E-2000®-SX	PC	0S2, G.657.A2	123304	
Silde-in cassette LC-DX	APC 8°	0S2, G.657.A2	123301	1
Silde-in cassette LC-DX	PC	0S2, G.657.A2	123300	
Silde-in cassette LC-DX	PC	OM4, G.651.1	123302	



### **Mini PLC splitter**

- Fiber: G.657.A1
- Length: 2 m
- Supported wavelengths: from 1260 nm up to 1650 nm
- With connectors at inputs and outputs or without connectors for splicing
- Cable diameter: 250  $\mu m$



Inlet	Outlet	Connector	Dimensions enclosure (WxHxL) in mm	Installation possible in OD enclosure	Article-No.	Fig.
1	4	0	40x4x4	yes	123317	1
1	8	0	40x4x4	yes	123318	
1	16	0	45x4.5x4		123319	
1	32	0	50x7x4	no	123320	
2	8	-	45x4.5x4	yes	123326	
2	16	-	60x7x4	no	123327	
2	32	-	65x7x4	no	123328	
1	4	LC/APC 8°	40x4x4	yes	123321	
1	8	LC/APC	40x4x4	yes	123322	
1	16	LC-SX/APC	45x4.5x4	yes	123323	
1	32	LC-SX/APC	50x7x4		123324	

### **PLC splitter ABS module**

- Fibre: G.657.A1
- Length of cables: 2m
- Supported wavelengths: from 1260 nm up to 1650 nm
- Cable diameter: 2 mm
- Connectors at inputs and outputs
- Material enclosure: ABS



Input	Output	Connector	Dimensions enclosure (WxHxL) in mm	Article-No.	Fig.
1	4	LC/APC	100x80x10	123329	
1	8	LC/APC	100x80x10	123330	2
1	16	LC/APC	120x80x18	123331	
1	32	LC/APC	120x80x18	123332	

### FTTH SPLITTER

### Splitter Distribution enclosure 19 Inch

- 19" enclosure with built-in ABS-BOX PLC splitter
- Splitter input and output via adapters
- Fibre splitter: G.657.A1
- Supported wavelengths: from 1260 nm up to 1650 nm
- Adapters inserted and screwed in
- Height: 1 U
- Material 19" enclosure: sheet steel, powder-coated
- Material BOX-PLC splitter: ABS
- Material of coupling ferrule: Ceramic
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push-button lock



Entry	Exit	Adapter Entry	Adapter Exit	Article-No.	Fig.
1	16	LC-DX/APC 8°	LC-DX/APC 8°	124885	1
1	32	LC-DX/APC 8°	LC-DX/APC 8°	124886	

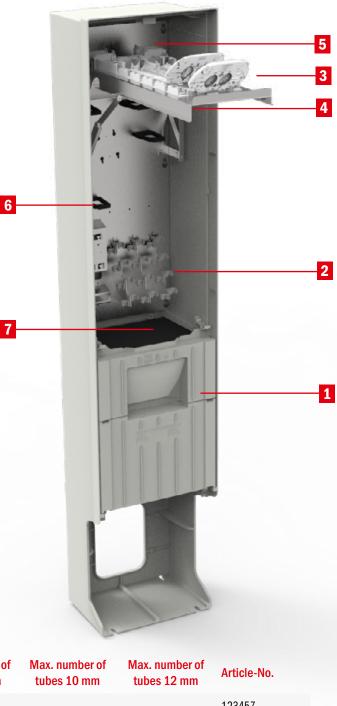
### **FIBRE OPTIC NETWORK DISTRIBUTOR TOWER NVT 17**

#### **Glass fibre network distributor NVt 17**

- Fibre optic network distributor made of fibreglass-reinforced polyester
- High impact resistance and protection against vandalism even at low outside temperatures
- High level of security against unauthorised access due to installation option of a profile half cylinder
- · Incl. integrated plinth
- 2 Capacity for max. 30 speed-pipes
  - Accommodates speed-pipes with 7, 10 and 12 mm diameter
  - Maximum number of splice cassettes: 40 pieces, each 4 mm high
- Maximum number of splices: up to 480 pieces
- 1 Easy access due to removable cover
- Ergonomic splicing in a sitting position possible due to hinged splice cassette holder
  - Additional protection of the splice trays through cover (not shown in the illustration)
- Adherence to bending radius and protection of the cables during transfer to the splice cassettes by using cable guide brackets
- Excess length storage for micro and mini cables possible on the rear side by means of cable guides
- One-piece base plate
  - Pre-assembled splice cassette holder UC19 for up to 40 splice cassettes
  - Height above ground: 1040 mm
  - Protection class: IP54
  - Dimensions (WxHxD): 345x1600x240 mm
  - Material: glass fibre reinforced polyester
  - Colour: RAL 7035 (light grey)

		121-				
Article	Tube capacity	Max. number of tubes 7 mm	Max. number of tubes 10 mm	Max. number of tubes 12 mm	Article-No.	
Empty case					123457	
Glass fibre network distributor NVt 17/15	15	-	15		123985	





### **FIBRE OPTIC NETWORK DISTRIBUTOR NVT 10**

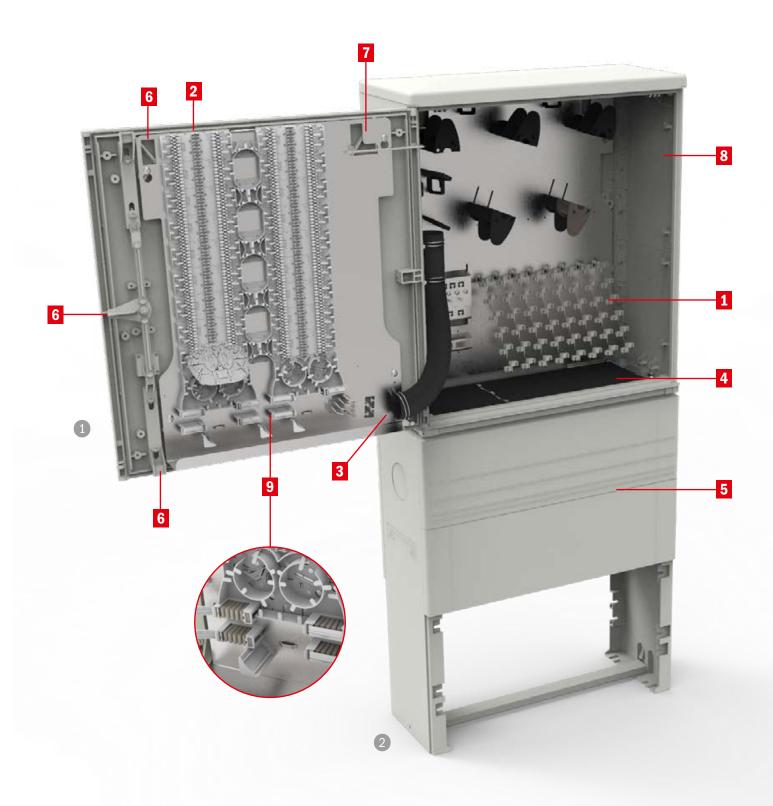
#### **Glass fibre network distributor NVt 10**

· Optical fibre network distributor, made of glass fibre-reinforced polyester

- · High impact resistance and protection against vandalism even at low outside temperatures
- · Protection of the enclosure in case of damage due to predefined breaking point
- Interruption-free operation when replacing parts of the enclosure or the entire enclosure after damage
- Separation of main cables and branch cables through two-part baseplate
- 5 Easy insertion of cables even after installation due to removable base panel
- 6 High security against unauthorized access by three-point locking with swivelling lever handle and optional profile half cylinder
- Tube capacity: max. 144 tubes on the distribution side (outgoing side) and 4 or 12 tubes on the incoming side
  - Flexible installation due to the possibility of installing tubes with an outer diameter of 7, 10, 12, 16 mm on the distribution side and up to 21 mm on the incoming cable side
- 2 Expansion capacity of up to 1728 splices due to maximum accommodation of 2 rows of up to 72 splice cassettes (of 4 mm height)
  - Clear arrangement due to division of splice cassettes in the door and cable management in the enclosure
  - · Splice cassette holder pre-mounted in the door for up to 2 x 72 splice cassettes
  - Additional protection of splice cassettes by cover (not shown in the illustration)
- Maintenance of bending radii and protection of cables during transfer from the over length tray to the splice cassettes by using an anti-kink hose
- Variable door locking at 90° or 180°
- Over length storage for micro and mini cables on the rear side, possible due to cable guides
- Special cable clamping block for safe interception of incoming micro and mini cables
  - · Door hinge on left
  - Height above ground: 1190 mm
  - · Protection class IP54
  - Dimensions of enclosure (WxHxD): 785x850x324 mm
  - Dimensions base (WxHxD): 785x950x310 mm
  - Material: glass-fibre reinforced polyester
  - RAL 7035 (light grey)

Article	Max. number of tubes	Max. number of tubes 7 mm	Max. Number of tubes 10 mm	Max. number of tubes 12 mm	Article-No.	Fig.
NVT 10/60 fibre network distribution cabinet	60		60		123964	
NVT 10/96 fibre network distribution cabinet	96	90		6	123965	
NVT 10/144 fibre network distribution cabinet	144	144	144		124854	1
Plinth for NVt 10					123419	2
Speedpipe holder up to 6 pipes					123052	

### FIBRE OPTIC NETWORK DISTRIBUTOR NVT 10



FTTH

### **NVT 20 FIBRE OPTIC NETWORK DISTRIBUTOR**

#### **Glass fibre network distributor NVt 20**

· Glass fibre network distributor, made of glass fibre reinforced polyester

- · High impact resistance even at low outside temperatures
- · Protection of the enclosure in case of collisions by predetermined breaking point
- Uninterrupted operation after a collision due to exchangeability of parts of the enclosure or the complete enclosure during operation
- Separation of the main cables and branch cables by means of a two-part baseplate
- · Easy insertion of cables even after installation thanks to removable base cover
- High security against unauthorised access thanks to three-point locking with swivelling lever handle and optional profile half cylinder
- · Double door for better accessibility of the installed components
- Door hold-open at 90°
- · Clear arrangement by dividing the components splice cassettes in the door and cable management in the enclosure
- Capacity tube: up to 180 pieces on the Vzk side (branch cable, outgoing side)
- 4 or 12 tubes on the HK side (main cable, input side)
- · Insertion and interception of 12 cables or empty conduits possible
- · Interception of the central cable elements via sheath wedge clamps
- Flexibility in expansion due to the possibility of installing tubes with the outer diameter: 7, 10, 12, 16 mm on the Vzk side and up to 21 mm on the HK side
- Expansion capacity of up to 2592 splices due to maximum capacity of 3 rows of 72 splice cassettes 12 splices each
- · Excess length storage for micro and mini cables possible on the rear side due to cable guides
- · Secure interception of incoming micro and mini cables by special cable clamping block
- · Cassette side slightly offset to the front for better handling
- Protection class IP54
- Dimensions enclosure (WxHxD): 1450x1080x470 mm
- Base dimensions (WxHxD): 1443x950x465 mm
- · Height above ground level 1190 mm
- Material: glass fibre reinforced polyester
- RAL 7035 (light grey)

Article	Max. number of tubes	Max. number of tubes 7 mm	Max. number of tubes 10 mm	Article-No.	Fig.
NVT 20 fibre network distribution cabinet				125231	
NVT 20/180 fibre network distribution cabinet	180	180	180	125520	1
Socket for NVT 20 fibre network distribution cabinet				125234	



### D-26

### **ACCESSORIES FOR FIBRE OPTIC NETWORK DISTRIBUTORS**

### **Splice cassette UC19**

FTTH

- Single circuit management (SCM) or multi circuit management (MCM)
- · Integrated individual storage of crimp or shrink splice protectors
- Incl. integrated cross-connect unit, the fibres can be inserted into the splice cassette from one side. A change of direction can then take place in the cassette so that the splice can be laid down correctly again
- Storage of up to 2.1 m excess fibre length with a 250  $\mu$ m fibre

#### The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

- Bend radius: 30 mm
- Labelling field for labelling
- Dimensions (WxHxL): CobiNet splice cassette 4 mm: 4x140x111 mm or CobiNet splice cassette 8 mm: 8x140x111 mm
- · Labeling field for labeling
- Dimensions (WxHxL): CobiNet splice cassette 4 mm: 4x140x111 mm or CobiNet splice cassette 8 mm: 8x140x111 mm





Application example

A
H .

Article	Splice cassette height	Splice	Management	Integrated ind. splice holder	Article-No.
Splice cassette UC19-404	4 mm	Crimp	SCM	4	123395
Splice cassette UC19-406	4 mm	Crimp	SCM	6	123396
Splice cassette UC19-412	4 mm	Crimp	SCM	12	123397
Splice cassette UC19-812 mm	8 mm	Crimp	МСМ	12	123398
Splice cassette UC19-824	8 mm	Crimp	МСМ	24	123399
Splice cassette UC19-8002 incl. storage for 2 PLC splitter 4x7 mm	8 mm	Crimp	Crimp	12	123815

#### **Splice cassette holder UC19**

- For 8 single circuit management (SCM) or 4 multi circuit management (MCM) splice cassettes incl. fibre routing for radius limitation
- Dimensions (WXHXL): 158.2x62.7x18.0 mm
- Screw dimension 25x25 mm for M3 countersunk head screw

Article	Article-No.
Splice cassette carrier plate UC19	123393



### **ACCESSORIES FOR FIBRE OPTIC NETWORK DISTRIBUTORS**

### Splice cassette cover UC19

• Transparent cover for single circuit management (SCM) or multi circuit management (MCM) splice cassettes

Article	Article-No.
Splice cassette cover UC19	123394



### Marking clips for splice cassette UC19

- Marking clips for splice cassette UC19, set of 30 pieces
- Basic colour: white, imprint: black
- Used for cable with diameter 1.9-2.6 mm
- Up to 6 marking clips possible on the splice cassette UC19

Article	Article-No.	Fig.
Marking ring with no.: 0	124393	
Marking ring with no.: 1	124394	1
Marking ring with no.: 2	124395	
Marking ring with no.: 3	124396	
Marking ring with no.: 4	124397	
Marking ring with no.: 5	124398	
Marking ring with no.: 6	124399	
Marking ring with no.: 7	124400	
Marking ring with no.: 8	124401	
Marking ring with no.: 9	124402	



FTTH

### **ACCESSORIES FOR FIBRE OPTIC NETWORK DISTRIBUTORS**

### Fibre optic network distributor Gf-AB mini

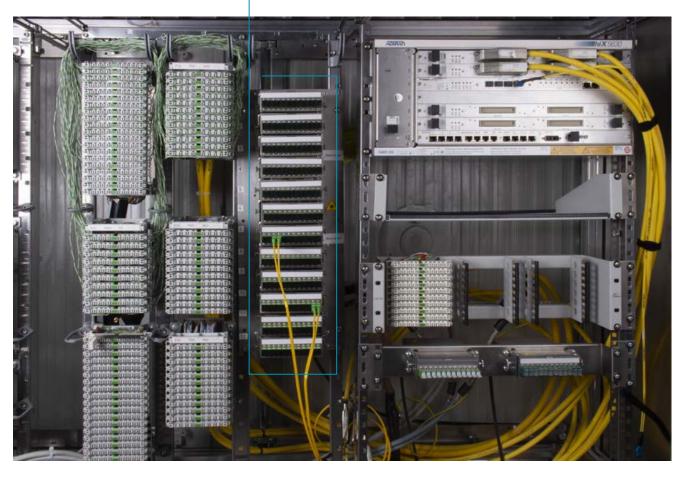
- Deployment in multifunctional enclosure (MFH)
- Fibre optic termination for installation bay in the multifunctional enclosure
- Assembled with connected couplings and fibre optic cable A-DQ(BN)H 1x12 E9/125
- Cable suitable for direct laying in the ground
- Incl. mounting material and bracket for installation in the telecommunications bay of a multifunctional enclosure

1

• Dimensions (WxHxL): 119x39.5x160 mm

Adapter	cable length	Article-No.	Fig.
LC-DX/APC 8°	25 m	123537	
LC-DX/APC 8°	50 m	123538	
SC-SX/APC 8°	25 m	123535	1
SC-SX/APC 8°	50 m	123536	
E-2000®-SX/APC 8°	25 m	123539	
E-2000 <sup>®</sup> -SX/APC 8°	50 m	123540	





### **ACCESSORIES FOR FIBRE OPTIC NETWORK DISTRIBUTORS**

#### **Crimp splice protector**

- For protecting fusion splice of single fibre
- · Metal protector, inside coated with permanently elastic material
- 1 set = 150 pcs
- Length: 30 mm

Article	Article-No.
Crimp splice protector, Telekom approved	121444

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#### **Shrink splice protector**

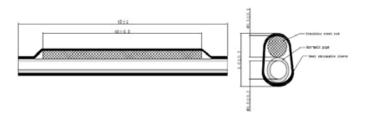
- For protecting fusion splice of single fibre
- · Metal protector, inside coated with permanently elastic material
- Suitable for most crimp splice protection holder due to slim design
- 1 set = 100 units shrink splice protector
- Length: 45 mm

Article

• Diameter: 1.6 mm, after shrinking approx. 1.2 mm

### Article-No.

Shrink splice protector for crimp splice 123650 protection holder



### **FTTX ACCESSORIES**

#### Marker Ball MB22

- Marker ball for locating communication cables buried in the ground
- Self aligning
- Material: HDPE
- Colour: Orange
- Frequency: 101.4 kHz
- Max. laying depth: 1.5 m

### Article-No.

126389

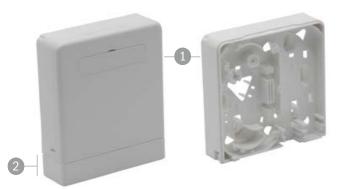


### FTTH OPTICAL TERMINATION SOCKET APARTMENT

#### Fibre optic walloutlet W019, unequipped

- · For termination of the in-house fibre optic cabling
- Capacity for 7 mm empty tube so that the cable can be blown directly into the socket
- · Cable is guided into the socket as it exits the tubes
- Socket suitable for pre-assembled cable or installation of pigtails
- Cable inlet options from the rear, left, right, top or bottom
- · Excess length storage at the rear
- · Cover latched, enclosed locking screw can be used optionally
- · Capacity of up to 2 LC-DX or SC-SX couplings
- Mounting options: switch box (80 mm), DIN rail (TH 35, TS 35), wall mounting (application 20 mm)
- · Capacity of up to 4 x crimp or shrink splice protectors

- Incl. labeling field
- Enclosure material: PC + ABS
- Colour: Cable and socket similar to RAL 9010 (pure white)



Article-No.

Fig.

#### Article

		0.
Fibre optic walloutlet W019 for crimp splice, unequipped	123182	1
Fibre optic walloutlet W019 for shrink splice, unequipped	123183	
Access protection for fiber optic walloutlet W019 and fiber optic rollerbox W019	123184	2

### Fibre optic walloutlet W019, equipped

- · For termination of the in-house fibre optic cabling
- Capacity for 7 mm empty tube so that the cable can be blown directly into the socket
- · Cable is guided into the socket as it exits the tubes
- · Socket suitable for pre-assembled cable or installation of pigtails
- · Cable inlet options from the rear, left, right, top or bottom
- · Excess length storage at the rear
- · Cover latched, enclosed locking screw can be used optionally
- · Capacity of up to 2 LC-DX or SC-SX couplings
- Mounting options: switch box (80 mm), DIN rail (TH 35, TS 35), wall mounting (application 20 mm)
- · Capacity of up to 4 x crimp or shrink splice protectors

- Incl. labeling field
- Enclosure material: PC + ABS
- · Colour: Cable and socket similar to RAL 9010 (pure white)



Article	Number of couplings	Number of pigtails	Article-No.	Fig.
Fibre optic walloutlet W019 equipped with LC-DX/APC 8° OS2 couplings	1	2	124197	3
Fibre optic walloutlet W019 equipped with LC-DX/APC 8° OS2 couplings	2	4	124198	
Fibre optic walloutlet W019 equipped with SC-DX/APC 8° OS2 couplings	1	1	124195	
Fibre optic walloutlet WO19 equipped with SC-DX/APC 8° OS2 couplings	2	2	124196	

### FTTH ROLLER BOX, CONNECTION SET INCL. CABLE

### FttH Rollerbox W019

- Ready-to-use pre-assembled connection set incl. fibre optic walloutlet W019 and in-house cable
- GHMT Type Approval
- Fibre: 0S2, G.657.A2
- To make connections to the house distribution point (HDP)
- · Couplings incl. shutter
- · Cover latched, enclosed locking screw can be used optionally
- · With retraction aid
- Capacity for 7 mm empty tubes for blowing cable directly into socket
- Cable inlet options from the rear, left, right, top or bottom

- Excess length storage at the rear
- Mounting options: switch box (80 mm), DIN rail (TH 35, TS 35)
- Capacity of up to 2 LC-DX or SC-SX couplings
- Capacity of up to 4 x crimp or shrink splice protectors
- Incl. labeling field
- Possibility to use the optional access protection 7809 999
- Enclosure material: PC + ABS
- Colour: similar to RAL 9010 (pure white)

Article	Number of couplings	Cable length in m	Article-No.	Fig.
LC-DX/APC 8° FttH-Rollerbox W019	1	15	125859	
LC-DX/APC 8° FttH-Rollerbox W019	1	30	123664	1
LC-DX/APC 8° FttH-Rollerbox W019	2	30	123665	
LC-DX/APC 8° FttH-Rollerbox W019	1	50	123666	
LC-DX/APC 8° FttH-Rollerbox W019	2	50	123667	
LC-DX/APC 8° FttH-Rollerbox W019	1	70	123668	
LC-DX/APC 8° FttH-Rollerbox W019	2	70	123669	
SC-SX/APC 8° FttH-Rollerbox W019	1	30	123670	
SC-SX/APC 8° FttH-Rollerbox W019	2	30	123671	
SC-SX/APC 8° FttH-Rollerbox W019	1	50	123672	
SC-SX/APC 8° FttH-Rollerbox W019	2	50	123673	
SC-SX/APC 8° FttH-Rollerbox W019	1	70	123674	
SC-SX/APC 8° FttH-Rollerbox W019	2	70	123675	

### FIELD-TERMINABLE FIBRE OPTIC CONNECTOR

#### Fibre optic field installation connector

- 1 set = 4 fibre optic connectors
- For use with fibre optic cable single mode OS2 0.9 mm
- Insertion loss: <= 0.30 dB</li>
- Return loss: >= 60.0 dB

Article	Article-No.	Fig.
Fibre optic connector LC-SX/APC 8°	123105	
Fibre optic connector SC-SX/APC 8°	123106	2

- Tensile strength: 10 N
- Green connector, black kink protection
- Easy to install as only one pair of Miller setting pliers and a glass cutter (cleaver) is needed
- Material: plastic



### SPLICE BOX AND DISTRIBUTOR ENCLOSURE OD 12/24



#### Features:

- material: structured ASA, extremely durable plastic, impact resistant and weatherproof
- colour: similar to RAL 7035 (light grey)
- protection class coupling IEC 60529: IP 54
- cover locking by means of latching hook with possibility of lead sealing
- splice cassette for easy installation and maintenance with the greatest possible protection of the fibres with cross-connect option and fibre overlength tray
- designed for 24 fibres when splicing, 24 fibres outgoing possible as distributor enclosure with optical coupler
- possibility to install a profile half cylinder for integration into your locking system
- strain relief for cables and patch cables
- · mounting and fixing for gas/water blocker
- patch cable outlet with flexible lamella seal

- incl. modular adapter plates with cut-outs for fibre optic couplings
- ST, FC, DIN (LSA)
- LC-DX, SC-SX, E-2000®-SX, MTRJ
- SC-DX, LC-Quad
- E-2000<sup>®</sup> -DX
- equipped with: couplings, pigtails, splice cassette, splice holder, splice cassette holder
- couplings inserted or screwed, pigtails inserted into couplings and inserted into splice cassette with separate secondary coating
- colour code coupling IEC 60304 (12 colours)
- mounting option for optical couplers
- cable inlet with metric gland: 2 x M 20 gland and option to use 2 x M 25 screw connections

FTTH

### Features of splice box/distributor enclosure 0D12/24

profile half cylinder can be installed on-site	
structured ASA (impact resistant) colour: similar to RAL 7035 (light grey)	
cassette can be swiveledfor easy wiring	
rear installation of 2 x splitters possible	
	patch cable outlet with
	flexible lamella seal
	strain relief for cable and patch cable
	inlet with metric screw connection lid
	locking by means of latching hook with possibility of lead sealing
	installation of up to 2 gas blockers

FTTH

### Splice enclosure OD 06, unequipped

- Up to 7 enclosures can be placed side by side
- · Cover removable upwards
- Incl. modular adapter plate with cut-outs for fibre optic couplings up to 6 x SC-SX, E-2000 $^{\odot}$ -SX or LC-DX
- · Possibility to mount and fix up to 6 gas/water blockers
- Capacity for a 40x4x4 mm splitter
- Installation space for profile half-cylinder

The CobiNet assembly service
Individual product configurations
can be pre-accombled in the facto

- Capacity for up to 6 empty tubes (7 mm)
- Lead sealable
- Incl. foldable splice cassette for up to 12 fibres
- Protection class: IP54
- Material: plastic ASA, halogen-free and impact resistant
- Dimensions (WxHxL): 174x253x54 mm
- Colour: similar to RAL 7035 (light grey)

Article	Article-No.	Fig.
Splice box OD 06, unequipped incl. adapter plate and splice cassette	122826	1
Splice box OD 06, unequipped Incl. adapter plate and splice cassette Incl. mounted profile half-cylinder and 2 keys	122827	
Stacking kit for splice box OD 06 to maintain protection class IP 54	123170	



### **SPLICE ENCLOSURE OD 06**

### Splice enclosure OD 06, equipped

- Up to 7 enclosures can be placed side by side
- · Cover removable upwards
- Incl. modular adapter plate with cut-outs for fibre optic couplings up to 6 x SC-SX, E-2000 $^{\odot}$ -SX or LC-DX
- · Possibility to mount and fix up to 6 gas/water blockers
- Capacity for a 40x4x4 mm splitter
- Installation space for profile half-cylinder

#### The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

- Capacity for up to 6 empty tubes (7 mm)
- Lead sealable
- Incl. foldable splice cassette for up to 12 fibres
- Protection class: IP54
- Material: plastic ASA, halogen-free and impact resistant
- Dimensions (WxHxL): 174x253x54 mm
- Colour: similar to RAL 7035 (light grey)

Article	Fibre quality	Polish	Adapter	Number of pigtails	Arcticle-No.	Fig.
OD 06 incl. 6 SC-SX adapter, incl. pigtails	0S2, G.657.A2	APC 8°	SC	6	123210	
OD 06 Incl. LC-DX/APC adapter, incl. pigtails	0S2, G.657.A2	APC 8°	LC	6	122894	1
OD 06 incl. 6 LC-DX/APC adapter, incl. pigtails, incl. profil half zylinder	0S2, G.657.A2	APC 8°	LC	12	122925	
OD 06 incl. with E-2000 $^{\ensuremath{\circledast}}$ -SX adapter, incl. pigtails	0S2, G.657.A2	APC 8°	E-2000®	6	123773	
OD 06 incl. with 2 LC-DX/APC adapter, incl. pigtails	0S2, G.657.A2	APC 8°	LC	4	125570	



## SPLICE ENCLOSURE 0D12

#### Splice enclosure OD12, unequipped

- Incl. three modular adapter plates with cut-outs for fiber optic adapter
- Adapter plate 1 for up to 9x LC-DX, SC-SX or E-2000<sup>®</sup>-SX
- Adapter plate 2 for up to 6x SC-DX or LC-Quad
- Adapter plate 3 for up to 6xE-2000<sup>®</sup>-DX
- · Possibility to mount and fix a gas/water blocker
- Installation space for profile half-cylinder
- Lead sealable

FTTH

- Splice holder for 12 splices
- Protection class: IP54
- Dimensions (WxHxL): 200x235x67 mm
- Material: ASA, halogen-free and impact resistant
- Colour: similar to RAL 7035 (light grey)

Article	Article-No.	Fig.
Splice box OD12, unequipped	116919	1
Splice enclosure OD12, unequipped with profile-half cylinder and 2 keys	120318	2



The CobiNet assembly service Individual product configurations can be pre-assembled in the factory



### **Profile half-cylinder**

- · For installation in swiveling lever handles and enclosures
- Closing: EK 333 with 2 keys
- Length: 40mm

Article

Profile half-cylinder

Article-No.



# FASTER INSTALLATION THANKS TO OUR ASSEMBLY SERVICE FOR RS18 CABINETS

## With the assembly service, CobiNet assembles and delivers individually equipped RS18 network cabinets

With ready-assembled and pre-tested modules, CobiNet's assembly service helps to accelerate project runtimes and save costs. They also simplify site logistics and optimise waste disposal by reducing packaging waste on the site.



## FTTH SPLICE ENCLOSURE 0D12

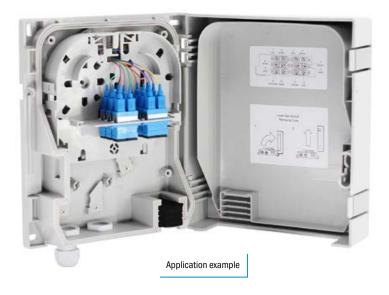
#### Splice enclosure OD12, equipped

- Incl. equipped adapter plates with cut-outs for fibre optic couplings
- Possibility to mount and fix a gas/water blocker
- Installation space for profile half-cylinder
- Lead sealable
- Splice holder for 12 splices
- Dimensions (WxHxL): 200x235x67 mm
- Material: ASA, halogen-free and impact resistant
- Colour: similar to RAL 7035 (light grey)



Article	Fibre quality	Fibre strength	Polish
OD 12 equipped with 6 SC-DX adapter, incl. pigtails	0S2, G.657.A2	E9/125	APC 8°
OD 12 equipped with 6 SC-DX adapter, incl. pigtails	0S2, G.657.A2	E9/125	PC
OD 12 equipped with 6 SC-DX couplings, incl. pigtails	OM3, G.651.1	G50/125	PC
OD 12 equipped with 6 SC-DX couplings, incl. pigtails	OM4, G.651.1	G50/125	PC
OD 12 equipped with 3 LC-Quad couplings, incl. pigtails	0S2, G.657.A2	E9/125	APC 8°
OD 12 equipped with 3 LC-Quad couplings, incl. pigtails	0S2, G.657.A2	E9/125	PC
OD 12 equipped with 3 LC-Quad couplings, incl. pigtails	OM3, G.651.1	G50/125	PC
OD 12 equipped with 3 LC-Quad couplings, incl. pigtails	OM4, G.651.1	G50/125	PC
OD 12 equipped with 6 LC-DX couplings, incl. pigtails	0S2, G.657.A2	E9/125	PC
OD 12 equipped with 6 LC-DX couplings, incl. pigtails	0S2, G.657.A2	E9/125	APC 8°
OD 12 equipped with 6 LC-DX couplings, incl. pigtails	OM3, G.651.1	G50/125	PC
OD 12 equipped with 6 LC-DX adapter, incl. pigtails	OM4, G.651.1	G50/125	PC
OD 12 equipped with 6 LC-DX adapter, incl. pigtails	0S2, G.657.A2	E9/125	APC 8°
OD 12 equipped with 6 LC-DX adapter, incl. pigtails	0S2, G.657.A2	E9/125	PC

# **SPLICE ENCLOSURE 0D12**



Adapter material	Adapter count	Pigtails	Article-No.
plastic, green	6	12 x SC/APC	119063
plastic, blue	6	12 x SC/PC	117111
plastic, aqua	6	12 x SC/PC	120908
plastic, heather violet	6	12 x SC/PC	120909
plastic, green	3	12 x LC/APC	120913
plastic, blue	3	12 x LC/PC	120912
plastic, aqua	3	12 x LC/PC	120915
plastic, heather violet	3	12 x LC/PC	120916
plastic, blue	6	12 x LC/PC	117110
plastic, green	6	12 x LC/PC	118292
plastic, aqua	6	12 x LC/PC	120911
plastic, heather violet	6	12 x LC/PC	120238
plastic, green	6	12 x E-2000®/APC	117300
plastic, blue	6	12 x E-2000 <sup>®</sup> /PC	117919

# SPLICE ENCLOSURE 0D24

#### Splice enclosure OD24, unequipped

- Incl. 3 modular adapter plates with cut-outs for fibre optic couplings
- Adapter plate 1 for up to 12x LC-DX, SC-SX, E-2000<sup>®</sup>-SX or MTRJ
- Adapter plate 2 for up to 9x SC-DX or LC-Quad
- Adapter plate 3 for up to 12x SC-DX, 6 x LC Quad without screw fastening
- Installation option of up to 2 splitters
- Splice holder for 24 splices
- · Possibility to mount and fix a gas/water blocker
- Installation space for profile half-cylinder
- Lead sealable
- Protection class: IP 54
- Dimensions (WxHxL): 200x235x67 mm
- Material: ASA, halogen-free and impact resistant
- Colour: similar to RAL 7035 (light grey)

# ArticleArticle-No.Fig.Splice enclosure OD24, unequipped1214691Splice enclosure OD 24, unequipped, incl. mounted profile half-cylinder and 2 keys121984

Splice enclosure OD24, equipped		The CobiNet asse Individual produc can be pre-assen	·
<ul> <li>Incl. equipped adapter plates with cut-outs for fibre optic adapter and splice receptacle</li> <li>Installation option of up to 2 splitters</li> <li>Splice holder for 24 splices</li> <li>Possibility to mount and fix a gas/water blocker</li> <li>Installation space for profile half-cylinder</li> </ul>	<ul> <li>er</li> <li>Lead sealable</li> <li>Protection class: IP 54</li> <li>Dimensions (WxHxL): 200x235x67 mm</li> <li>Material: ASA, halogen-free and impact resistant</li> <li>Colour: similar to RAL 7035 (light grey)</li> </ul>		t
Article	Fibre quality	Fibre strength	Polish
OD 24 equipped with 6 LC-Quad adapter, incl. pigtails	0S2, G.657.A2	E9/125	APC 8°
OD 24 equipped with 6 LC-Quad adapter, incl. pigtails	0S2, G.657.A2	E9/125	РС
OD 24 equipped with 6 LC-Quad adapter, incl. pigtails	OM3, G.651.1	G50/125	PC
OD 24 equipped with 6 LC-Quad adapter, incl. pigtails	OM4, G.651.1	G50/125	PC
OD 24 equipped with 12 SC-DX adapter, incl. pigtails	0S2, G.657.A2	E9/125	APC8°
OD 24 equipped with 12 SC-DX adapter, incl. pigtails	0S2, G.657.A2	E9/125	PC
OD 24 equipped with 12 SC-DX adapter, incl. pigtails	OM3, G.651.1	G50/125	PC
OD 24 equipped with 12 SC-DX adapter, incl. pigtails	OM4, G.651.1	G50/125	РС
OD 24 equipped with 6 E-2000 <sup>®</sup> -DX/APC adapter, incl. pigtails	0S2, G.657.A2	E9/125	APC 8°
OD 24 equipped with 12 SC-DX adapter, incl. pigtails	0S2, G.657.A2	E9/125	APC 8°



D-40

## **SPLICE ENCLOSURE 0D24**





Adapter material	Adapter count	Article-No.	Fig.
plastic, green	6	121465	
plastic, blue	6	121464	
plastic, aqua	6	121467	
plastic, heather violet	6	121468	
plastic, green	12	121460	3
plastic, blue	12	121459	
plastic, aqua	12	121462	
plastic, heather violet	12	121463	
plastic, green	6	121891	
plastic, green	12	121876	

# **SPLICE ENCLOSURE KS48**

#### Fibre plastic distributor enclosure KS48, unequipped

· Lockable door

FTTH

- For up to 48x SC-SX-, 48x E-2000<sup>®</sup>-SX-, or 24x LC-DX adapter
- Incl. 2 splice cassettes for up to 48 crimp splices with cover
- Surface mounting

Article

- Protection class: IP 54
- Dimensions (WxHxL): 250x380x90 mm

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

• Colour: similar to RAL 7035 (light grey)

Article	Article-No.
Fibre plastic distributor enclosure KS48, unequipped	121128





# **MAKE IT EASY!** The revolutionary CobiNet RJ45-TL®-System



Installation video, data sheets and additional information www.cobinet.com/rj45-tl

## Less stress during installation and operation

- Safe operation thanks to full 10G performance in accordance with Cat. 6A component standard, independently proofed by GHMT Type Approval
- Safe operation of all PoE applications up to 90 watts (4 PPoE according to IEEE 802.3bt) thanks to optimised RJ45 contact surfaces

### RJ45-TL<sup>®</sup> patch panel

- Time-saving, tool-free wiring of the data cable through innovative lever mechanism
- Time saving and easy handling thanks to strain relief without cable ties
- Convenient wiring of the RJ45 jacks at the front in installed condition
- Optimum dust protection and port marking by exchangeable dust protection flaps in different colours

## RJ45-TL<sup>®</sup> jack

- Top price-performance ratio thanks to double jack construction
- Time-saving installation of the double jack compared compared to the installation of two classic network jacks
- Simple, tool-free installation of the wires
- Space-saving installation without cable stress fits perfectly into flat switch boxes and eliminates the need for use of electronic in-wall boxes

## See page 134

## See page 132

#### **Distribution enclosure FDC20**

- For connecting residential units to the fibre optic network
- Can be equipped with:
- LC-DX/APC 8° adapters and pigtails
- Adapter holder for up to 6 LC-DX adapters
- Up to 8 splice cassettes for up to 12 splices each
- 1 LSA disconnection module on mounting tray

- The CobiNet assembly service Individual product configurations can be pre-assembled in the factory
- Surface-mounted frame 80x80 mm for mounting a coaxial or data socket
- Cable entries at the rear, from above and below
- Incl. 6 cable guides
- Dimensions: (WxHxD) 333x333x115 mm
- Material Enclosure: galvanized sheet steel, cover powder-coated
- Colour cover: RAL 7035 (light grey)

Article	Number of s plice cassettes	Number of LC/APC Pigtails	Number of adapters	Type of adapter	Article-No.
Distribution enclosure FDC20, equipped	1	6	3	LC-DX/APC	124296
Distribution enclosure FDC20, equipped	1	12	6	LC-DX/APC	124295



FTTH

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

## **BUILDING DISTRIBUTION ENCLOSURES**

#### **Distribution enclosure FDC30**

• For connecting larger residential units to the fibre optic network

- Closed enclosure with mounting plate made of perforated sheet metal
- Cable entries from below, front door with three-point locking and profile half cylinder
- Can be equipped with e.g. CobiNet universal splice cassettes UC19, ABS splitter cassettes, fibre optic couplers and pigtails
- Dimensions: (WxHxD) 600x630x216 mm
- Material: galvanised sheet steel, powder-coated cover
- Colour: RAL 7035 (light grey)

Article	Number of splice cassettes	Number of pigtails	Number of adapters	Adapter	Article-No.	Fig.
Distribution enclosure FDC30, unequipped	-	-	-	-	124978	
Distribution enclosure FDC30, equipped	40	-	-	-	125119	1
Distribution enclosure FDC30, equipped	8	48	24	LC-DX/APC	125670	





#### Blow-in cable A-DQ(ZN)B2Y

- Single mode, E9/125  $\mu m$ , OS2, G.657.A1
- Central loose tube filled with gel for cable diameters 2.5 and 2.9
   mm
- Central loose tube filled with gel for cable diameter 4.6 mm
- Non-metallic rodent protection Aramid
- Outer sheath: HDPE
- Suitable for 7, 10 or 12 mm tubes
- Length: 6 km

Article	Cable diameter	Diameter tubes inside/outside	Article-No.	Fig.
4 fibres	2.5 mm	7/4 mm	123460	1
4 fibres	2.5 mm	10/6 mm	123469	
6 fibres	2.5 mm	7/4 mm	123458	
12 fibres	2.5 mm	7/4 mm	123461	
12 fibres	4.6 mm	10/6 mm	123471	
12 fibres	4.6 mm	12/8 mm	123466	
24 fibres	2.9 mm	7/4 mm	123462	
24 fibres	4.6 mm	10/6 mm	123472	
24 fibres	4.6 mm	12/8 mm	123467	
48 fibres	4.6 mm	10/6 mm	123473	
48 fibres	4.6 mm	12/8 mm	123468	

1

# **FTTX INSTALLATION CABLE**

### D-47

#### **Drop cable**

- Single mode, E9/125  $\mu m$ , OS2, G.657.A2
- Central loose tube filled with gel
- Non-metallic rodent protection Aramid
- Sheath: LSZH (halogen-free)
- Suitable for 4 mm tubes
- Length: 2 km

Article	Article-No.
4 fibres	123475



## FTTH SIMPLEX PATCH CABLE

#### Simplex patch cable I-V(ZN)H tight buffer

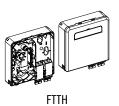
- For jumpering in distribution boxes or as a device connection cable
- Cable I-V(ZN)H tight buffer with connectors assembled on both sides
- Simplex patch cable
- LC/APC 8° or SC/APC 8°
- OS2 fibre
- LSZH (halogen-free)
- Sheath: 2 mm diameter



Article	Fibre quality	Polish	Length	Article-No.	Fig.
Patch cable LC	0S2, G.657.A2	APC 8°	1.0 m	121384	
Patch cable LC	0S2, G.657.A2	APC 8°	2.0 m	118791	1
Patch cable LC	0S2, G.657.A2	APC 8°	3.0 m	120395	
Patch cable LC	0S2, G.657.A2	APC 8°	5.0 m	120397	
Patch cable SC	0S2, G.657.A2	APC 8°	1.0 m	116895	
Patch cable SC	0S2, G.657.A2	APC 8°	2.0 m	116947	
Patch cable SC	0S2, G.657.A2	APC 8°	3.0 m	116948	
Patch cable SC	0S2, G.657.A2	APC 8°	5.0 m	116949	

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FIBRE OPTIC TECHNOLOGY



DATA CABLE FIBRE OPTIC & COPPER



COPPER DATA NETWORKS



NETWORK CABINETS



TELECOMMUNICATION

## DATA CENTRE SHORT DEFINITION DATA CENTRE

The data center houses the central information technology of a company or a state or public institution. This is where the most important processes of data processing and central storage take place.

The secure and uninterrupted operation is the basis for the success of a company or an institution. Due to economic or constitutional principles special requirements apply to availability.

Big Data, Industry 4.0, internet of things and cloud computing always require faster transmission rates and greater storage and computing capacities.

Therefore the capacities of a data center are constantly being expanded and upgraded to the current state of technology which results in very high demands on the migration capability of the used infrastructure.

#### **Planning and Risk Analysis**

The secure and efficient operation of a data center requires a risk analysis right from the start, which includes the following topics:

- · access control
- climatisation
- power supply/consumption
- fire protection, EMC, lightning protection
- IT cabling
- building design
- · environmental events
- · redundancy concepts/high availability

#### **Unification and Standardisation**

In order to standardise the complex requirements for the planning and operation of a data center, DIN EN 50600 is now available as a multi-part, comprehensive set of standards at the European level (see image below).

#### **Core Competence**

As a manufacturer of cabling solutions, CobiNet focuses on DIN EN 50600-2-4, the telecommunications cabling infrastructure, and offers high-performance trunk cable solutions in copper and glass with the corresponding packing density as an HD (high density) solution.



Information technology, facilities and infrastructure of data centers



EN 50600-1

EN 50600-2-1

EN 50600-2-2 EN 50600-2-3

EN 50600-2-4

regulation of environmental conditions

#### infrastructure of telecommunication cabling

general concepts

building design

power supply

EN 50600-2-5 protection systems

EN 50600-2-6

information for management and operation



## DATA CENTRE CABLING CONCEPT

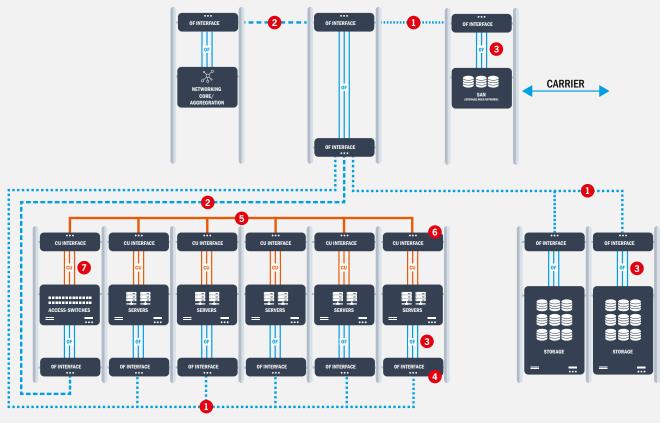
### **Class 2 cabling concept coupling DIN EN 50600**

Representation of end-of-row concept with:

- CPL: central patch distributor optical fibre (OF)
- ZPL: zone patch distributor optical fibre (OF) and copper (CU) with access switches at end of row of cabinets, EoR

1 Trunk cable fib	re optic (Fibre Channel Storage)	from page D-112
2 Trunk cable fib	re optic (Network IP)	from page D-55
3 Patch cable fib	pre optic	from page D-90
4 Module/casse	ette carrier fibre optic	on request
5 Trunk cable co	pper	on request
6 Module carrier	r copper	from page D-138
7 Patch cable co	ppper	from page D-145

## **CPL (central patch distributor optical fibre)**



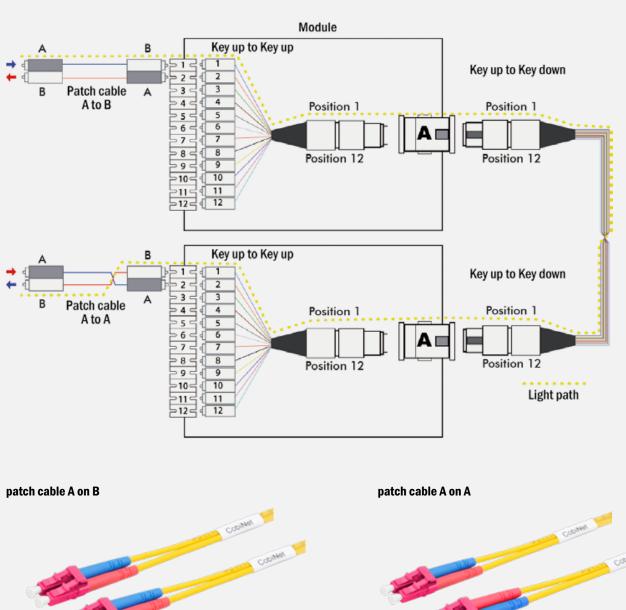
## DATA CENTRE MTP-/MPO-POLARITIES

### MTP Polarity "Method A"

Method A uses a 1:1 configuration with two different patch cables. All components in the link are "key up" to "key down" (default). The modules are occupied the same way. For the patch cables, an "A to B" patch cable is required at one end of the link and a crossed "A to A" patch cable at the other.

- two identical modules or cassettes
- two CobiNet patch cables (see below for crossing)
- single mode: 100 GBase LR4, wavelength division multiplex up to 10 km multi mode: 100 GBase-SR4, parallel optics up to 150 m with OM4
- for single and multi-mode applications (APC and PC)

Configuration of 12 fiber trunk cable



Thanks to the duplex clip, with CobiNet LC and SC patch cables (see page D-90) the crossing in the patch cable can be done on site by the customer

# **RS18 – THE COBINET RACK SYSTEM WITH THE THIRD 19" DIMENSION**

- installing the components from the front, rear, side and additionally from the top and bottom
- up to 28 rack units more
   19" space due to third rack dimension
- 100 % calculation reliability
   6 door types, one price
- quick assembly through handy twopiece side panels and rack doors
- easy one person alignment of the rack due to inside adjustable feet
- for the greatest capacity possible: high load capacity of 1500 kg
- saving time, resources and costs on site because of pre-assembled delivery
- fits almost everywhere due to wide variety: heights from 22 to 52 RU, depths from 800 to 1200 mm, widths from 600 to 800 mm, stackable

## www.cobinet.com/shop



## DATA CENTRE DATA CENTRE CABLES

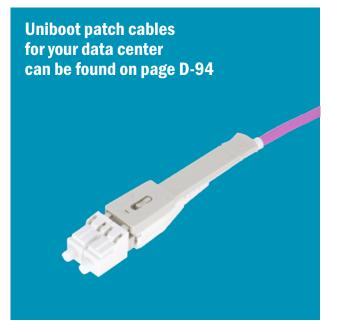
#### MPO/ MTP® cable

- Patch and connection cable MPO / MPO
- Push-pull locking
- Fibre quality: OS2, OM4, OM5
- OM5 according to TIA-492AAAE for up to 100 Gbit applications over 2 fibres
- Configuration as per MPO polarity method A
- 12 fibre per connector (24, 36 fibre on request)

Article	Fibre quality	Polish	Length	Arcticle-No. Fig
MPO / $\rm MTP^{\circledast}$ cable female to female	0S2, G.657.A2	UPC	1.0 m	123281
MPO / MTP $^{\ensuremath{ extsf{s}}}$ cable female to female	0S2, G.657.A2	UPC	2.0 m	123282
MPO / $\rm MTP^{\circledast}$ cable female to female	0S2, G.657.A2	UPC	5.0 m	123283
MPO / MTP $^{\circ}$ cable female to female	0S2, G.657.A2	UPC	10.0 m	123284
MPO / $\rm MTP^{\circledast}$ cable female to female	0S2, G.657.A2	UPC	20.0 m	123285
MPO / $\rm MTP^{\scriptsize \rm \$}$ cable female to female	0S2, G.657.A2	UPC	30.0 m	123286
MPO / MTP $^{\mbox{\tiny \$}}$ cable male to male	0S2, G.657.A2	UPC	1.0 m	123287
MPO / $\rm MTP^{\scriptsize \rm B}$ cable male to male	0S2, G.657.A2	UPC	2.0 m	123288
MPO / $\rm MTP^{\circledast}$ cable male to male	0S2, G.657.A2	UPC	5.0 m	123289
MPO / $\rm MTP^{\circledast}$ cable male to male	0S2, G.657.A2	UPC	10.0 m	123290
$\rm MPO$ / $\rm MTP^{\$}$ cable male to male	0S2, G.657.A2	UPC	20.0 m	123291
MPO / $\rm MTP^{\otimes}$ cable male to male	0S2, G.657.A2	UPC	30.0 m	123292
MPO / $\rm MTP^{\otimes}$ cable female to female	OM4, G.651.1	UPC	1.0 m	123550
$\rm MPO$ / $\rm MTP^{\circledast}$ cable female to female	OM4, G.651.1	UPC	2.0 m	123257
MPO / $\rm MTP^{\otimes}$ cable female to female	OM4, G.651.1	UPC	5.0 m	123258
MPO / $\rm MTP^{\$}$ cable female to female	OM4, G.651.1	UPC	10.0 m	123259
MPO / $\rm MTP^{\circledast}$ cable female to female	OM4, G.651.1	UPC	20.0 m	123260
MPO / $\rm MTP^{\circledast}$ cable female to female	OM4, G.651.1	UPC	30.0 m	123261
MPO / $\text{MTP}^{\ensuremath{\$}}$ cable male to male	OM4, G.651.1	UPC	1.0 m	124330
MPO / $\rm MTP^{\scriptsize \rm B}$ cable male to male	OM4, G.651.1	UPC	2.0 m	123264
MPO / $\rm MTP^{\scriptsize \rm B}$ cable male to male	OM4, G.651.1	UPC	5.0 m	123265 1
MPO / $\text{MTP}^{\scriptscriptstyle (\!8\!)}$ cable male to male	OM4, G.651.1	UPC	10.0 m	123266
MPO / $\text{MTP}^{\ensuremath{\text{\tiny \$}}}$ cable male to male	OM4, G.651.1	UPC	20.0 m	123267
MPO / $\rm MTP^{\circledast}$ cable male to male	OM4, G.651.1	UPC	30.0 m	123268

## DATA CENTRE DATA CENTRE CABLES





Trunk cables for your data center can be found on page D-112



You can find all our catalogue items in the online shop at www.cobinet.com/shop

# THE COBINET PRODUCT CATALOGUES

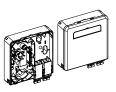
Download more catalogues for our **telecommunications** and **network cabinet** solutions at www.cobinet.com/downloads or order a printed copy there



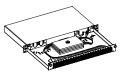
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FTTH



DATA CENTRE





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COPPER DATA NETWORKS



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FIBRE OPTIC TECHNOLOGY

## ALU-SPLICE/DISTRIBUTOR ENCLOSURE, FIXED INSTALLATION

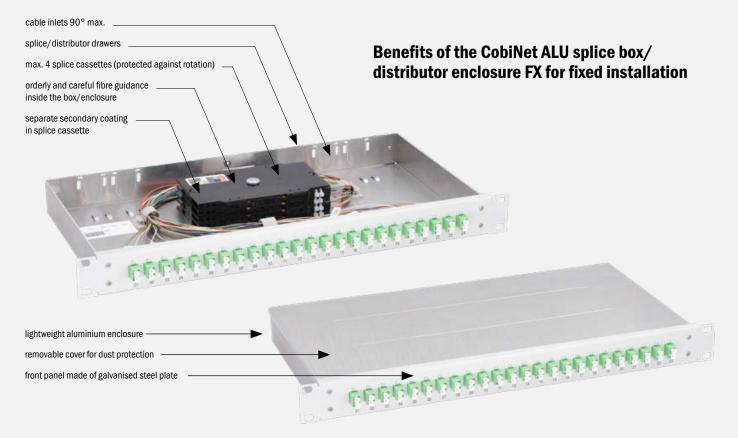
The CobiNet FX splice boxes and distributor enclosures for fixed installation can be used in all sub-areas of building data cabling (primary, secondary and tertiary areas). The aluminium design of the enclosure reduces the weight of the box significantly. This reduces the weight in the data cabinet for less strain on the data cabinet.

To reduce assembly time at the construction site, the box/ enclosure is pre-assembled ready for installation. For the distributor enclosure, which is intended for pre-assembled trunk cables, this means that all couplings are inserted and screwed in.

With the splice box, the pigtails are also inserted, guided in with sufficient reserve outside of the splice cassette and placed into the splice cassette with a separate secondary coating. The boxes are designed so that cables can be inserted via a gland or distribution points can be mounted.

#### Features:

- splice/distributor drawer for termination of 48 optical fibres incl. cover
- Boxes/enclosures are assembled ready to splice:
- distributor enclosure: adapter/couplings inserted and screwed in, incl. distribution point bracket
- splice box: adapters/couplings inserted and screwed in, pigtails inserted into couplings and placed into splice cassette with separate secondary coating (colours as per DIN VDE 0888 Part 3 and IEC 60304)
- if not fully equipped, any unused front panel break-outs are sealed using dummy plugs
- cable inlets 90° for the accommodation of up to four cables or four pre-assembled cables with distribution points; two inlets each on left and right-hand side
- max. 4 splice cassettes (protected against rotation)
- · orderly and careful fibre guidance inside the box/enclosure
- box/enclosure made of aluminium, front panel made of galvanised steel plate, colour similar to RAL 7035 (light grey) or RAL 9005 (jet black)
- incl. 19" mounting kit
- width: 19" (482.6 mm), depth: 255 mm (without couplings and cable glands)



D-58

## FIBRE OPTIC CONNECTIVITY LC DUPLEX

The CobiNet assembly service Individual product configurations

can be pre-assembled in the factory

#### ALU splice enclosure FX, fixed installation, design: LC-Duplex

- 19" (482.6 mm), 1 RU, fixed installation
- Equipped with up to 24 adapters, 48 pigtails, 4 splice cassettes, 4 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic
- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Duplex	APC 8°	plastic, green	12	120650	
0S2, G.657.A2	E9/125	Duplex	APC 8°	plastic, green	24	120651	1
0S2, G.657.A2	E9/125	Duplex	APC 8°	plastic, blue	12	120676	
0S2, G.657.A2	E9/125	Duplex	PC	plastic, blue	24	120678	
0S2, G.657.A2	E9/125	Duplex	APC 8°	plastic, aqua	12	120738	
OM3, G.651.1	G50/125	Duplex	PC	plastic, aqua	24	120741	
OM4, G.651.1	G50/125	Duplex	APC 8°	plastic, heather violet	12	120769	
OM4, G.651.1	G50/125	Duplex	PC	plastic, heather violet	24	120770	

## LC QUAD

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

#### ALU splice enclosure FX, fixed installation, design: LC-Quad

- 19" (482.6 mm), 1 RU, fixed installation
- Equipped with up to 24 adapters, 48 pigtails, 4 splice cassettes, 8 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material coupling ferrules: ceramic
- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Quad	APC 8°	plastic, green	24	120659	
0S2, G.657.A2	E9/125	Quad	РС	plastic, blue	24	120687	2
OM4, G.651.1	G50/125	Quad	РС	plastic, heather violet	24	120779	

# FIBRE OPTIC CONNECTIVITY SC SIMPLEX

#### ALU splice enclosure FX, fixed installation, design: SC-Simplex

- 19" (482.6 mm), 1 RU, fixed installation
- Equipped with up to 24 adapters, 24 pigtails, 2 splice cassettes, 2 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material coupling ferrules: ceramic

- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Simplex	APC 8°	plastic, green	12	120637	
0S2, G.657.A2	E9/125	Simplex	APC 8°	plastic, green	24	120638	1
0S2, G.657.A2	E9/125	Simplex	PC	plastic, blue	12	120665	
0S2, G.657.A2	E9/125	Simplex	PC	plastic, blue	24	120666	
OM3, G.651.1	G50/125	Simplex	PC	plastic, aqua	12	120729	
OM3, G.651.1	G50/125	Simplex	PC	plastic, aqua	24	120730	
OM4, G.651.1	G50/125	Simplex	PC	plastic, heather violet	12	120759	
OM4, G.651.1	G50/125	Simplex	PC	plastic, heather violet	24	120760	

#### The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

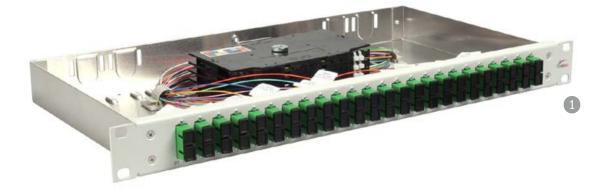
# FIBRE OPTIC CONNECTIVITY SC DUPLEX

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

#### ALU splice enclosure FX, fixed installation, design: SC-Duplex

- 19" (482.6 mm), 1 RU, fixed installation
- Equipped with up to 24 adapters, 48 pigtails, 4 splice cassettes, 4 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic

- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Duplex	APC 8°	plastic, green	12	116607	
0S2, G.657.A2	E9/125	Duplex	APC 8°	plastic, green	24	120645	1
0S2, G.657.A2	E9/125	Duplex	PC	plastic, blue	12	116691	
0S2, G.657.A2	E9/125	Duplex	PC	plastic, blue	24	120671	
OM2, G.651.1	G50/125	Duplex	PC	plastic, aqua	12	120733	
OM3, G.651.1	G50/125	Duplex	PC	plastic, aqua	24	120734	
OM4, G.651.1	G50/125	Duplex	PC	plastic, heather violet	12	120763	
OM4, G.651.1	G50/125	Duplex	PC	plastic, heather violet	24	120764	

## FIBRE OPTIC CONNECTIVITY E-2000<sup>®</sup> SIMPLEX

#### ALU splice enclosure FX, fixed installation, design: E-2000<sup>®</sup>-Simplex

- 19" (482.6 mm), 1 RU, fixed installation
- Equipped with up to 24 adapters, 24 pigtails, 2 splice cassettes, 2 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic
- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Simplex	APC 8°	plastic, green	12	116915	
0S2, G.657.A2	E9/125	Simplex	APC 8°	plastic, green	24	120640	1
0S2, G.657.A2	E9/125	Simplex	PC	plastic, blue	12	120668	
0S2, G.657.A2	E9/125	Simplex	PC	plastic, blue	24	120669	

## E-2000<sup>®</sup> DUPLEX

#### ALU splice enclosure FX, fixed installation, design: E-2000<sup>®</sup>-Duplex

- 19" (482.6 mm), 1 RU, fixed installation
- Equipped with up to 24 adapters, 48 pigtails, 4 splice cassettes, 4 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic
- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Duplex	APC 8°	plastic, green	12	120647	
0S2, G.657.A2	E9/125	Duplex	APC 8°	plastic, green	24	120648	2
0S2, G.657.A2	E9/125	Duplex	PC	plastic, blue	12	120674	
0S2, G.657.A2	E9/125	Duplex	PC	plastic, blue	24	120675	

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

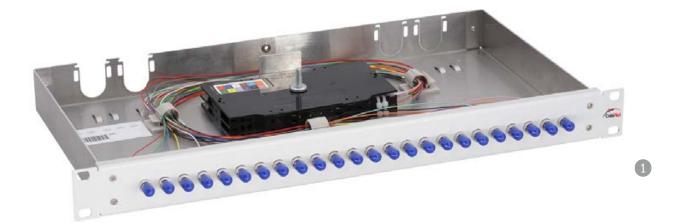
# FIBRE OPTIC CONNECTIVITY ST SIMPLEX

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

#### ALU splice enclosure FX, fixed installation, design: ST-Simplex

- 19" (482.6 mm), 1 RU fixed installation
- Equipped with up to 24 adapters, 24 pigtails, 2 splice cassettes, 2 splice holders, splice cassette cover
- · Adapter inserted and screwed
- Adapter ferrule material: ceramic

- Pigtails inserted in adapter and inserted in splice cassette with separate secondary coating, color code according to IEC 60304 (12 colors)
- Colour: RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Simplex	PC	Metal, silver	12	116697	
0S2, G.657.A2	E9/125	Simplex	PC	Metal, silver	24	120681	1
OM3, G.651.1	G50/125	Simplex	PC	Metal, silver	12	120744	
OM3, G.651.1	G50/125	Simplex	PC	Metal, silver	24	120745	
OM4, G.651.1	G50/125	Simplex	PC	Metal, silver	12	120773	
OM4, G.651.1	G50/125	Simplex	PC	Metal, silver	24	120774	

# FIBRE OPTIC CONNECTIVITY FC SIMPLEX

#### ALU splice enclosure FX, fixed installation, design: FC-Simplex

- 19" (482.6 mm), 1 RU, fixed installation
- Equipped with up to 24 adapters, 24 pigtails, 2 splice cassettes, 2 splice holders, splice cassette cover
- Adapter inserted and screwed
- Adapter ferrule material: ceramic

- The CobiNet assembly service Individual product configurations can be pre-assembled in the factory
- Pigtails inserted in adapter and inserted in splice cassette with separate secondary coating, color code according to IEC 60304 (12 colors)
- Colour: RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Simplex	PC	Metal, silver	12	120684	
0S2, G.657.A2	E9/125	Simplex	PC	Metal, silver	24	120685	1
OM3, G.651.1	G50/125	Simplex	PC	Metal, silver	12	120748	
OM3, G.651.1	G50/125	Simplex	PC	Metal, silver	24	120749	
OM4, G.651.1	G50/125	Simplex	РС	Metal, silver	12	120776	

## **FIBRE OPTIC CONNECTIVITY**

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

## ALU SPLICE BOX, FIXED INSTALLATION (FX), UNEQUIPPED

#### Alu splice enclosure FX, fixed installation, unequipped

- Splice enclosure with 24 break-outs for adapter, unequipped
- Max. number of splice cassettes: 4
- Max. fibre count: 96
- 19" (482.6 mm), 1 RU, fixed installation

- Material enclosure: aluminium
- Front panel material: steel plate, galvanised
- Colour: RAL 7035 (light grey)
- Incl. cover and 19" fixing kit



Article	Equipment option	Max. fibre count	Article-No.	Fig.
Alu splice enclosure ST, DIN, FC, unequipped	ST / DIN / FC	24	120634	
Alu splice enclosure SC-SX, E2000 $^{\ensuremeth{\circledast}}$ SX, LC-DX, unequipped	SC-SX, E-2000®-SX, LC-DX	48 with LC-DX, 24 with SC-SX, E-2000®-SX	120635	
Alu splice enclosure SC-DX, LC-Quad, unequipped	SC-DX, LC-QD	96 with LC-Quad, 48 with SC-DX	120636	
Alu splice enclosure E-2000® DX, unequipped	E-2000 <sup>®</sup> -DX	48 with E-2000 <sup>®</sup> -DX	124298	1

#### **FIBRE OPTIC TECHNOLOGY**

## **EXTENDABLE AND TILTING SPLICE BOX/DISTRIBUTOR ENCLOSURE**

The CobiNet PB (Pullout Basic) splice box and distributor enclosure combines the convenience of the extendable solution with the security of the fixed-installation solution.

It can be used in all sub-areas of building data cabling (primary, secondary and tertiary areas).

To reduce assembly time at the construction site, the box/ enclosure is pre-assembled ready for installation. For the distributor enclosure, which is intended for pre-assembled trunk cables, this means that all couplings are inserted and screwed in. With the splice box, the pigtails are also inserted, guided in with sufficient reserve outside of the splice cassette and placed into the splice cassette with a separate secondary coating. The boxes are designed such that cables can be inserted via a gland or distribution points can be mounted.

#### Features:

- extendable, tilting and detachable splice/distributor drawer for the termination of 48 optical fibres
- The newly developed SB adapter allows for fixed cable installation which can be reversed at any time:
- unintentional removal is prevented
- splices are inaccessible
- boxes/enclosures are assembled ready to splice:
- distributor enclosure: adapter/couplings inserted and screwed in, incl. distribution point bracket
- Splice box: adapters/couplings inserted and screwed in, pigtails inserted into couplings and placed into splice cassette with separate secondary coating (colours as per DIN VDE 0888 Part 3 and IEC 60304)
- if not fully equipped, any unused front panel break-outs are sealed using dummy plugs
- cable inlets 45° and 90° changeable on both sides, for the accommodation of cables or for pre-assembled cable with distribution points
- max. 4 splice cassettes (protected against rotation)
- orderly and careful fibre guidance inside the box/enclosure
- box/enclosure/drawer made of galvanised steel plate, colour similar to RAL 7035 (light grey) or RAL 9005 (jet black)
- incl. 19" mounting kit
- width: 19" (482.6 mm), depth: 225 mm (without couplings and cable glands

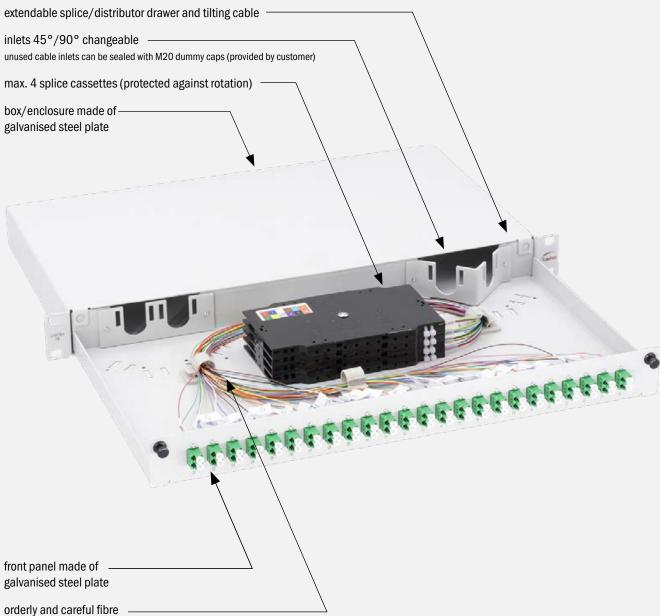




Conversion option to fixed installation with enclosed SB adapter. Factory supplied option extendable/tilting with push button closure

## **EXTENDABLE AND TILTING SPLICE BOX/DISTRIBUTOR ENCLOSURE**

### Features of the extendable and tilting CobiNet PB splice box/distributor enclosure



guidance inside the box/enclosure

# FIBRE OPTIC CONNECTIVITY LC DUPLEX

#### Splice enclosure PB, extendable and tilting, design: LC Duplex

- 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapters, 48 pigtails, 4 splice cassettes, 4 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic

- The CobiNet assembly service Individual product configurations can be pre-assembled in the factory
- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	LC-DX	APC 8°	plastic, green	12	118582	
0S2, G.657.A2	E9/125	LC-DX	APC 8°	plastic, green	24	118581	1
0S2, G.657.A2	E9/125	LC-DX	PC	plastic, blue	12	116892	
0S2, G.657.A2	E9/125	LC-DX	PC	plastic, blue	24	117240	
OM3, G.651.1	G50/125	LC-DX	PC	plastic, aqua	12	118943	
OM3, G.651.1	G50/125	LC-DX	PC	plastic, aqua	24	118942	
OM4, G.651.1	G50/125	LC-DX	PC	plastic, heather violet	12	118945	
OM4, G.651.1	G50/125	LC-DX	PC	plastic, heather violet	24	118944	
OM5, WBMM	G50/125	LC-DX	PC	plastic, lime green	24	124656	

# FIBRE OPTIC CONNECTIVITY LC QUAD

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

#### Splice enclosure PB, extendable and tilting, design: LC Quad

- 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapter, 96 pigtails, 4 splice cassettes, 8 splice holder, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic

- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	Quad	APC 8°	plastic, green	24	118950	1
0S2, G.657.A2	E9/125	Quad	PC	plastic, blue	24	117580	
OM3, G.651.1	G50/125	Quad	PC	plastic, aqua	24	118956	
G.651.1	G50/125	Quad	PC	plastic, heather violet	24	118959	

# FIBRE OPTIC CONNECTIVITY SC SIMPLEX

#### Splice enclosure PB, extendable and tilting, design: SC Simplex

- 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapters, 24 pigtails, 2 splice cassettes, 2 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic

 Individual product configurations can be pre-assembled in the factory
 Pigtails inserted in adapter and placed into splice cassette with separate secondary coating colour code as per IEC 60304 (12)

The CobiNet assembly service

- separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	SC Simplex	APC 8°	plastic, green	12	118965	
0S2, G.657.A2	E9/125	SC Simplex	APC 8°	plastic, green	24	118964	1
0S2, G.657.A2	E9/125	SC Simplex	PC	plastic, blue	12	118230	
0S2, G.657.A2	E9/125	SC Simplex	PC	plastic, blue	24	116853	
OM3, G.651.1	G50/125	SC Simplex	PC	plastic, aqua	12	118968	
OM3, G.651.1	G50/125	SC Simplex	PC	plastic, aqua	24	118967	
OM4, G.651.1	G50/125	SC Simplex	PC	plastic, heather violet	12	118969	
OM4, G.651.1	G50/125	SC Simplex	PC	plastic, heather violet	24	118970	

# FIBRE OPTIC CONNECTIVITY SC DUPLEX

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

#### Splice box PB, extendable and tilting, design: SC Duplex

- 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapters, 48 pigtails, 4 splice cassettes, 4 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic

- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	SC Duplex	APC 8°	plastic, green	12	116946	
0S2, G.657.A2	E9/125	SC Duplex	APC 8°	plastic, green	24	118989	1
0S2, G.657.A2	E9/125	SC Duplex	PC	plastic, blue	12	116936	
0S2, G.657.A2	E9/125	SC Duplex	PC	plastic, blue	24	117298	
OM3, G.651.1	G50/125	SC Duplex	PC	plastic, aqua	12	118992	
OM3, G.651.1	G50/125	SC Duplex	PC	plastic, aqua	24	118993	
OM4, G.651.1	G50/125	SC Duplex	PC	plastic, heather violet	12	118994	
OM4, G.651.1	G50/125	SC Duplex	PC	plastic, heather violet	24	118995	

## FIBRE OPTIC CONNECTIVITY E-2000<sup>®</sup> SIMPLEX

#### Splice box PB, extendable and tilting, design: E-2000<sup>®</sup> Simplex

- 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapters, 24 pigtails, 2 splice cassettes, 2 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic
- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



The CobiNet assembly service Individual product configurations

can be pre-assembled in the factory

Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	E-2000 <sup>®</sup> -SX	APC 8°	plastic, green	12	116953	
0S2, G.657.A2	E9/125	E-2000 <sup>®</sup> -SX	APC 8°	plastic, green	24	116852	1
0S2, G.657.A2	E9/125	E-2000 <sup>®</sup> -SX	PC	plastic, blue	12	117270	
0S2, G.657.A2	E9/125	E-2000 <sup>®</sup> -SX	PC	plastic, blue	24	117442	

## E-2000<sup>®</sup> DUPLEX

#### Splice box PB, extendable and tilting, design: E-2000<sup>®</sup> duplex

- 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapters, 48 pigtails, 4 splice cassettes, 4 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic
- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



The CobiNet assembly service Individual product configurations can be pre-assembled in the factor

Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	E-2000® DX	APC 8°	plastic, green	12	116562	
0S2, G.657.A2	E9/125	E-2000® DX	APC 8°	plastic, green	24	116356	2
0S2, G.657.A2	E9/125	E-2000® DX	РС	plastic, blue	12	118919	
0S2, G.657.A2	E9/125	E-2000 <sup>®</sup> DX	PC	plastic, blue	24	118797	

# FIBRE OPTIC CONNECTIVITY ST SIMPLEX

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

# Splice box PB, extendable and tilting, design: ST-SX

- + 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapters, 24 pigtails, 2 splice cassettes, 2 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic

- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	ST-SX	PC	Metal	12	117275	
OS2, G.657.A2	E9/125	ST-SX	PC	Metal	24	117325	1
OM3, G.651.1	G50/125	ST-SX	PC	Metal	12	119027	
OM3, G.651.1	G50/125	ST-SX	PC	Metal	24	119032	
OM4, G.651.1	G50/125	ST-SX	PC	Metal	12	119028	
OM4, G.651.1	G50/125	ST-SX	PC	Metal	24	119031	

# FIBRE OPTIC CONNECTIVITY FC SIMPLEX

### Splice box PB, extendable and tilting, design: FC-SX

- 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapters, 24 pigtails, 2 splice cassettes, 2 splice holders, splice cassette cover
- · Adapter inserted and screwed in
- Material adapter ferrules: ceramic

- Pigtails inserted in adapter and placed into splice cassette with separate secondary coating, colour code as per IEC 60304 (12 colours)
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



Fibre quality	Fibre type	Design	Polish	Adapter material	Number of Adapter	Article-No.	Fig.
0S2, G.657.A2	E9/125	FC-SX	APC 8°	Metal	12	119035	
0S2, G.657.A2	E9/125	FC-SX	APC 8°	Metal	24	119036	1
0S2, G.657.A2	E9/125	FC-SX	РС	Metal	12	119037	
0S2, G.657.A2	E9/125	FC-SX	PC	Metal	24	119038	
OM3, G.651.1	G50/125	FC-SX	PC	Metal	12	119041	
OM3, G.651.1	G50/125	FC-SX	PC	Metal	24	119042	
OM4, G.651.1	G50/125	FC-SX	PC	Metal	12	119043	
OM4, G.651.1	G50/125	FC-SX	PC	Metal	24	119044	

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

# FIBRE OPTIC CONNECTIVITY

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

# **DISTRIBUTOR ENCLOSURES**

# Distributor enclosure PB, extendable and tilting

- 19" (482.6 mm), 1 RU, extendable and tilting
- Equipped with up to 24 adapters
- · Adapter inserted and screwed in

- Material adapter ferrules: ceramic
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



Adapter	Fibre quality	Design	Polish	Adapter material	Number of Adapter	Article-No.
LC	0S2	Duplex	APC 8°	plastic, green	12	119053
LC	0S2	Duplex	APC 8°	plastic, green	24	119054
LC	0\$2	Duplex	PC	plastic, blue	12	116893
LC	0\$2	Duplex	PC	plastic, blue	24	117691
LC	0M3	Duplex	PC	plastic, aqua	12	123216
LC	0M3	Duplex	PC	plastic, aqua	24	124564
LC	0M4	Duplex	PC	plastic, heather violet	12	122679
LC	0M4	Duplex	PC	plastic, heather violet	24	124566
LC	0M5	Duplex	PC	plastic, lime green	24	124711
SC	0\$2	Simplex	PC	plastic, blue	24	116855
SC	0\$2	Duplex	PC	plastic, blau	12	125222
SC	0S2	Duplex	PC	plastic, blue	24	118660
SC	0M3	Duplex	PC	plastic, aqua	12	124567
SC	0M3	Duplex	PC	plastic, aqua	24	124569
SC	0M4	Duplex	PC	plastic, heather violet	12	124571
SC	0M4	Duplex	PC	plastic, heather violet	24	124572
E-2000®	0\$2	Simplex	APC 8°	plastic, green	12	118929
E-2000®	0S2	Simplex	APC 8°	plastic, green	24	118933
E-2000®	0\$2	Duplex	APC 8°	plastic, green	12	118930
E-2000®	0\$2	Duplex	APC 8°	plastic, green	24	118931
E-2000®	0S2	Duplex	РС	plastic, blue	12	119056
E-2000®	0S2	Duplex	PC	plastic, blue	24	117468
ST-SX	OS2, OM2, OM3, OM4	Simplex	PC	Metal	12	119170
ST-SX	OS2, OM2, OM3, OM4	Simplex	PC	Metal	24	120315

# FIBRE OPTIC CONNECTIVITY SPLICE ENCLOSURE PB, UNEQUIPPED

### Splice enclosure PB, unequipped

Break-outs for installation of up to 24 adapters

- 19" (482.6 mm), 1 RU, extendable and tilting
- Colour: RAL 7035 (light grey)
- Incl. cover, 19" mounting kit, SB adapter and push button closure



The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

Article	Equipment option	Max. fibre count	Article-No.	Fig.
Extendable splice enclosure ST, DIN, FC, unequipped	ST, DIN, FC	24	118308	
Extendable splice enclosure LC-DX, SC-SX, E-2000 <sup>®</sup> -SX, unequipped	LC-DX, SC-SX, E-2000®-SX	48 with LC-DX, 24 with SC-SX, E-2000 $^{\circledast}\text{-}$ SX	116782	1
Extendable splice enclosure SC-DX, LC-Quad, unequipped	SC-DX, LC-Quad	96 with LC-Quad, 48 with SC-DX	117333	
Extendable splice enclosure E-2000® DX, unequipped	E-2000®-DX	48	123039	

# Cable routings, kinked

<ul> <li>Cable routings 45° (angled) for</li> </ul>	splice enclosure PB	
2x M20, fibre optic loose tube s	plitter	
Colour: RAL 7035 (light grey)		
Article	Article-No.	1 Alex
Cable insertion 45° (kinked)	118518	1111

# **CABLE ROUTINGS 19"**

### Cable routing

- 19" 1 RU
- Material: steel plate, galvanised
- Colour: RAL 7035 (light grey)

ArticleArticle-No.Cable routings 1 RU100823



# FIBRE OPTIC CONNECTIVITY OD 06 UNEQUIPPED

### Splice enclosure OD 06, unequipped

- Up to 7 enclosures can be placed side by side
- Cover removable upwards
- Incl. modular adapter plate with cut-outs for fibre optic couplings up to 6 x SC-SX, E-2000<sup>®</sup>-SX or LC-DX
- · Possibility to mount and fix up to 6 gas/water blockers
- Capacity for a 40x4x4 mm splitter
- Installation space for profile half-cylinder

- The CobiNet assembly service Individual product configurations can be pre-assembled in the factory
- Capacity for up to 6 empty tubes (7 mm)
- Lead sealable
- Incl. foldable splice cassette for up to 12 fibres
- Protection class: IP54
- Material: plastic ASA, halogen-free and impact resistant
- Dimensions (WxHxL): 174x253x54 mm
- Colour: similar to RAL 7035 (light grey)

Article	Article-No.	Fig.
Splice box OD 06, unequipped incl. adapter plate and splice cassette	122826	1
Splice box OD 06, unequipped Incl. adapter plate and splice cassette Incl. mounted profile half-cylinder and 2 keys	122827	
Stacking kit for splice box OD 06 to maintain protection class IP 54	123170	



# **FIBRE OPTIC CONNECTIVITY OD 12 UNEQUIPPED**

### Splice enclosure OD12, unequipped

- · Incl. three modular adapter plates with cut-outs for fiber optic adapter
- Adapter plate 1 for up to 9x LC-DX, SC-SX or E-2000<sup>®</sup>-SX
- · Adapter plate 2 for up to 6x SC-DX or LC-Quad
- Adapter plate 3 for up to 6xE-2000<sup>®</sup>-DX
- · Possibility to mount and fix a gas/water blocker
- Installation space for profile half-cylinder

# .

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

- · Lead sealable
- Splice holder for 12 splices
- Protection class: IP54
- Dimensions (WxHxL): 200x235x67 mm
- Material: ASA, halogen-free and impact resistant
- Colour: similar to RAL 7035 (light grey)

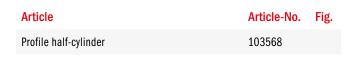
Article	Article-No.	Fig.
Splice box OD12, unequipped	116919	1
Splice enclosure OD12, unequipped with profile-half cylinder and 2 keys	120318	2





# **Profile half-cylinder**

- · For installation in swiveling lever handles and enclosures
- Closing: EK 333 with 2 keys
- Length: 40mm





# FIBRE OPTIC CONNECTIVITY

# **OD 24 UNEQUIPPED**

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

# D-79

# Splice enclosure OD24, unequipped

- Incl. 3 modular adapter plates with cut-outs for fibre optic couplings
- Adapter plate 1 for up to 12x LC-DX, SC-SX, E-2000  $^{\ensuremath{\$}}\text{-SX}$  or MTRJ
- Adapter plate 2 for up to 9x SC-DX or LC-Quad
- Adapter plate 3 for up to 12x SC-DX, 6 x LC Quad without screw fastening
- Installation option of up to 2 splitters
- Splice holder for 24 splices

- Possibility to mount and fix a gas/water blocker
- Installation space for profile half-cylinder
- Lead sealable
- Protection class: IP 54
- Dimensions (WxHxL): 200x235x67 mm
- Material: ASA, halogen-free and impact resistant
- Colour: similar to RAL 7035 (light grey)

Article	Article-No.	Fig.
Splice enclosure OD24, unequipped	121469	1
Splice enclosure OD 24, unequipped, incl. mounted profile half-cylinder and 2 keys	121984	2





# FIBRE OPTIC CONNECTIVITY DIN RAIL SPLICE ENCLOSURE

### **DIN rail splice enclosure**

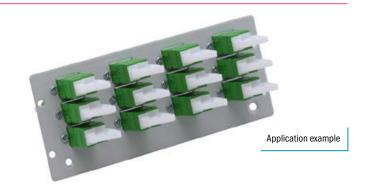
- Incl. splice cassette, splice holder and cable gland M20
- Labeling strip with clear cover included
- Suitable for front panels (can be ordered separately) with: 12x ST, 12x LC-DX, 6x E-2000<sup>®</sup>-DX, 12x SC-SX or 6x SC-DX
- Dimensions (WxHxL): 61x115x113 mm
- Material: steel plate
- Colour: RAL 7035 (light grey)

Article	Article-No.
DIN rail splice enclosure without front panel, unequipped	122496

# Application example

### Front panel for DIN rail splice enclosure

- Front panel for DIN rail splice enclosure (122496)
- · Material: steel plate



Article	Adapter count	Article-No.
Front panel LC-DX, E-2000 $^{\odot}$ -SX, LSH-SX oder SC-SX adapter	12	122501
Front panel SC-DX adapter	6	122504
Front panel E-2000 <sup>®</sup> -DX, LSH-DX adapter	6	122502
Front panel ST-SX or FC-SX adapter	12	122500

The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

# FIBRE OPTIC CONNECTIVITY DIN RAIL SPLICE ENCLOSURE

### **DIN rail splice enclosure, equipped**

- Incl. splice cassette, splice holder and cable gland M20
- Labeling strip with clear cover included
- Equipped with 12 adapters and pigtails
- Dimensions (WxHxL): 61x115x113 mm
- Material: sheet steel
- Colour: RAL 7035 (light grey)



The CobiNet assembly service Individual product configurations can be pre-assembled in the factory

Fibre quality	Fibre type	Design	Polish	Adapter material	Number of adapter	Number of pigtails	Article-No.	Fig.
0S2, G.657.A2	E9/25	SC-SX	APC 8°	plastic, green	12	12	123072	
0S2, G.657.A2	E9/125	SC-SX	PC	plastic, blue	12	12	123073	
OM3, G.651.1	G50/125	SC-SX	PC	plastic, aqua	12	12	123074	
0S2, G.657.A2	E9/125	LC-DX	APC 8°	plastic, green	12	24	123069	1
0S2, G.657.A2	E9/125	LC-DX	PC	Plastic, blue	12	24	123070	
OM3, G.651.1	G50/125	LC-DX	PC	Plastic, aqua	12	24	123071	

### **DIN rail enclosure, equipped**

- Incl. cable gland M20 at cable entry
- Label strip with clear cover included
- Assembled with 12 adapters
- Dimensions (WxHxD): 61x115x113 mm
- Material: Metal
- Colour: RAL 7035 (light grey)





Adapter	Adapter material	Number of adapter	Article-No.	Fig.
SC-SX/APC 8°	plastic, green	12	123078	
SC-SX/PC	plastic, aqua	12	123076	
SC-SX/PC	plastic, blue	12	123077	
LC-DX/APC 8°	plastic, green	12	123079	2
LC-DX/PC	plastic, blue	12	123080	
LC-DX/PC	plastic, aqua	12	123081	

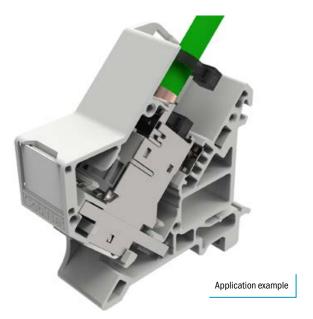
# **FIBRE OPTIC CONNECTIVITY DIN RAIL SPLICE ENCLOSURE**

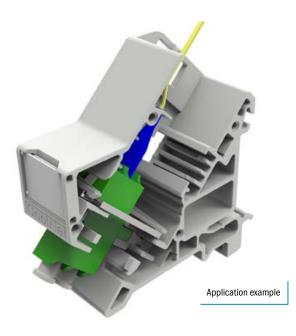
### DIN rail module enclosure KS, unequipped

- Module enclosure for mounting RJ45 jack for Keystone format or fiber optic adapter LC-DX, SC-SX with flange on DIN rails TH 35 or TS 35 as per DIN 60715.
- · For shielded and unshielded RJ45 jacks of KS systems
- Labeling field on the front
- Incl. adapter for mounting fibre optic adapters
- · Incl. lateral cover plate
- Dimensions (WxHxL): 18x68x67 mm
- Material: polyamide, fibreglass reinforced
- · Colour: similar to RAL 7035 (light grey)

Article	Article-No.
DIN rail module enclosure KS, unequipped	122497







# FIBRE OPTIC CONNECTIVITY ADAPTERS LC-LC DUPLEX (DX)

- Adapter according to IEC 61754-20
- · Screw- and snap-in fastening with integrated metal clip
- Material adapter ferrules: ceramic



Suitable to fibre quality	Suitable for fibre type	Polish	Enclosure colour	Enclosure material	Design	Article-No.	Fig.
0S2	E9/125	APC 8°	green	Plastic	Duplex	115251	1
0S2	E9/125	PC	blue	Plastic	Duplex	115252	
0M3	G50/125	PC	aqua	Plastic	Duplex	116057	
0M4	G50/125	PC	heather violet	Plastic	Duplex	117547	
0M5	G50/125	РС	lime green	Plastic	Duplex	124355	

# ADAPTER LC-LC QUAD (QD)

### Fibre optic adapter Design: LC-LC-Quad

- Adapter as per IEC 61754-20
- Screw and snap-in fastening with integrated metal clip
- Material adapter ferrules: ceramic



Suitable for fibre quality	Suitable for fibre type	Polish	Enclosure colour	Enclosure material	Design	Article-No.	Fig.
0S2	E9/125	APC 8°	green	Plastic	Quad	116051	2
0S2	E9/125	PC	blue	Plastic	Quad	117436	
0M3	G50/125	PC	aqua	Plastic	Quad	116961	
0M4	G50/125	PC	heather violet	Plastic	Quad	117548	

# FIBRE OPTIC CONNECTIVITY ADAPTER SC-SC SIMPLEX (SX)

# Fibre optic adapter Design: SC-SC Simplex

- Adapter as per IEC 61754-4
- · Screw- and snap-in fastening with integrated metal clip
- Material adapter ferrules: ceramic



Suitable for fibre quality	Suitable for fibre type	Polish	Enclosure colour	Enclosure material	Design	Article-No.	Fig.
0S2	E9/125	APC 8°	green	Plastic	Simplex	115247	1
0S2	E9/125	PC	blue	Plastic	Simplex	115248	
0M3	G50/125	PC	aqua	Plastic	Simplex	120145	
0M4	G50/125	PC	heather violet	Plastic	Simplex	120146	

# ADAPTER SC-SC DUPLEX (DX)

### Fibre optic adapter Design: SC-SC-Duplex

- Adapter as per IEC 61754-4
- · Screw- and snap-in fastening with integrated metal clip
- Material adapter ferrules: ceramic



2

Suitable for fibre quality	Suitable for fibre type	Polish	Enclosure colour	Enclosure material	Design	Article-No.	Fig.
0S2	E9/125	APC 8°	green	Plastic	Duplex	115249	2
0S2	E9/125	PC	blue	Plastic	Duplex	115250	
0M3	G50/125	PC	aqua	Plastic	Duplex	115882	
OM4	G50/125	PC	heather violet	Plastic	Duplex	116025	

# FIBRE OPTIC CONNECTIVITY ADAPTER E-2000®-E-2000® SIMPLEX (SX)

### Fibre optic adapter Design: E-2000®-E-2000®-Simplex

- Adapter as per IEC 61754-15
- · Screw- and snap-in fastening with integrated metal clip
- Adapter ferrule material: ceramic



Fitting to Fibre quality	Fibretyp	Polish	Color	Enclosure material	Design	Article-No.	Fig.
0S2	E9/125	APC 8°	green	Plastic	Simplex	120229	1
0S2	E9/125	PC	blue	Plastic	Simplex	115365	

# E-2000®-E-2000® DUPLEX (DX)

### Fibre optic adapter Design: E-2000®-E-2000®-Duplex

- Adapter as per IEC 61754-15
- · Screw- and snap-in fastening with integrated metal clip
- Adapter ferrule material: ceramic



Suitable for fibre quality	Suitable for fibre type	Polish	Enclosure colour	Enclosure material	Design	Article-No.	Fig.
0S2	E9/125	APC 8°	green	Plastic	Duplex	116196	2
0S2	E9/125	PC	blue	Plastic	Duplex	116197	

# Fibre optic adapter Design: ST-ST Simplex

- Adapter as per IEC 61754-2
- · Screw- and snap-in fastening with integrated metal clip
- Adapter ferrule material: ceramic



Suitable for fibre quality	Suitable for fibre type	Polish	Enclosure color	Enclosure ma- terial	Design	Article-No.
OS2, OM3, OM4	E9/125 and G50/125	РС	silver	Metal	Simplex	115246

# FIBRE OPTIC FIELD INSTALLATION CONNECTORS

### Fibre optic field installation connector

- 1 set = 4 fibre optic connectors
- · For use with fibre optic cable single mode OS2 0.9 mm
- Insertion loss: <= 0.30 dB
- Return loss: >= 60.0 dB
- Tensile strength: 10 N
- · Green connector, black kink protection
- Easy to install as only one pair of Miller setting pliers and a glass cutter (cleaver) is needed
- Material: plastic

Article	Article-No.	Fig.
Fibre optic connector LC-SX/APC 8°	123105	
Fibre optic connector SC-SX/APC 8°	123106	1



# FIBRE OPTIC CONNECTIVITY PIGTAIL LC

# Fibre optic pigtails Design: LC

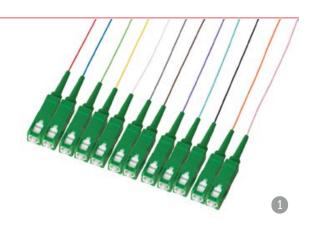
- Pigtail set with 12 coloured pigtails as per colour code: VDE 0888- 3, DIN IEC 60304
- Fibre: G.657.A2 single mode
- Fibre: G.651.1 multi mode
- Quality grade: Grade B
- Fibre OM5 as per TIA-492AAAE for up to 100 Gbit applications over 2 fibres
- Loose tube 0.9 mm with connector fitted on one side
- For splitting multicore cables using splicing technology
- · Coating can be stripped back by up to a metre in one go
- Connector is attached to the fibre at the factory by qualified personnel and the measurement result of the factory 100% attenuation test is documented in the form of a flag on the pigtail
- Length: 2.0 m



Fibre quality	Fibre type	Polish	Article-No.	Fig.
0S2, G.657.A2	E9/125	APC 8°	115231	1
0S2, G.657.A2	E9/125	PC	115229	
OM3, G.651.1	G50/125	PC	115237	
OM4, G.651.1	G50/125	PC	115240	
OM5, WBMMF	G50/125	PC	124302	

# Fibre optic pigtails Design: SC

- Pigtail set with 12 coloured pigtails as per colour code: VDE 0888- 3, DIN IEC 60304
- Fibre: G.657.A2 single mode
- Fibre: G.651.1 multi mode
- Quality grade: Grade B
- Loose tube 0.9 mm with connector fitted on one side
- For splitting multicore cables using splicing technology
- · Coating can be stripped back by up to a metre in one go
- Connector is attached to the fibre at the factory by qualified personnel and the measurement result of the factory 100% attenuation test is documented in the form of a flag on the pigtail
- Length: 2.0 m



Fibre quality	Fibre type	Polish	Article-No.	Fig.
0S2, G.657.A2	E9/125	APC 8°	115230	1
OS2, G.657.A2	E9/125	APC 8°, 0,06 dB	118202	
0S2, G.657.A2	E9/125	PC	115228	
OM3, G.651.1	G50/125	PC	115236	
OM4, G.651.1	G50/125	PC	115239	

# FIBRE OPTIC CONNECTIVITY PIGTAIL E-2000®

# R

D-89

# Fibre optic pigtails Design: E-2000®

- Pigtail set with 12 coloured pigtails as per colour code: VDE 0888-3, DIN IEC 60304
- Fibre: G.657.A2 single mode
- Fibre: G.651.1 multi mode
- Quality grade: Grade B
- Loose tube 0.9 mm with connector fitted on one side
- For splitting multicore cables using splicing technology
- · Coating can be stripped back by up to one metre in one go
- Length: 2.0 m

Fibre quality	Fibre type	Polish	Kink protection	Article-No.	Fig.
0S2, G.657.A2	E9/125	APC 8°	short	122265	1
0S2, G.657.A2	E9/125	PC	long	118128	
OM3, G.651.1	G50/125	PC	long	118175	
OM4, G.651.1	G50/125	PC	long	118187	



2

### Fibre optic pigtails Design: ST

- Pigtail set with 12 coloured pigtails as per colour code: VDE 0888-3, DIN IEC 60304
- Fibre: G.657.A1 single mode
- Fibre: G.651.1 multi mode
- Quality level: Grade B
- Loose tube 0.9 mm with connector fitted on one side
- For splitting multicore cables using splicing technology
- · Coating can be stripped back up to one meter in one go
- Length: 2.0 m

Fibre quality	Fibre type	Polish	Article-No.	Fig.
0S2, G.657.A2	E9/125	PC	115227	2
OM3, G.651.1	G50/125	PC	115235	
OM4, G.651.1	G50/125	PC	115238	



# **FIBRE OPTIC CONNECTIVITY PATCH CABLE LC-LC**

# Fibre optic patch cable **Design: LC-LC**

- For jumpering in distribution enclosures or as a device connection cable
- Structure: I-V(ZN)H cable (tight buffer, Mini Zip) with connectors assembled on both sides
- Dimensions: 2.8x5.6 mm
- Quality grade: Grade B

- Fibre OM5 as per TIA-492AAAE for up to 100 Gbit applications over 2 fibres
- Polarity changeable
- Sheath: halogen-free (LSZH)

Seembled of both sidesSee a series a seri
Arricle-No.         Fibre type         Polish         Sheath colour         Design         Length         Article-No.         Fig.           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         1.0 m         117944         1           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         2.0 m         117945         1           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         3.0 m         115636         1           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         5.0 m         115637
Ore quality         Fibre type         Polish colour         Design         Length         Article-No.         Fig.           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         1.0 m         117944         1           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         2.0 m         117945           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         3.0 m         115636           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         5.0 m         115637
Ore quality         Fibre type         Polish colour         Design         Length         Article-No.         Fig.           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         1.0 m         117944         1           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         2.0 m         117945           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         3.0 m         115636           2, G.657.A2         E9/125         APC 8°         yellow         Duplex         5.0 m         115637
2, G.657.A2E9/125APC 8°yellowDuplex2.0 m1179452, G.657.A2E9/125APC 8°yellowDuplex3.0 m1156362, G.657.A2E9/125APC 8°yellowDuplex5.0 m115637
2, G.657.A2       E9/125       APC 8° yellow       Duplex       3.0 m       115636         2, G.657.A2       E9/125       APC 8° yellow       Duplex       5.0 m       115637
2, G.657.A2 E9/125 APC 8° yellow Duplex 5.0 m 115637
2, G.657.A2 E9/125 APC 8° yellow Duplex 10.0 m 121919
2, G.657.A2 E9/125 PC yellow Duplex 1.0 m 115512
2, G.657.A2 E9/125 PC yellow Duplex 2.0 m 115379
2, G.657.A2 E9/125 PC yellow Duplex 3.0 m 115513
2, G.657.A2 E9/125 PC yellow Duplex 5.0 m 115434
2, G.657.A2 E9/125 PC yellow Duplex 7.5 m 121949
2, G.657.A2 E9/125 PC yellow Duplex 10.0 m 118716
3, G.651.1 G50125 PC aqua Duplex 1.0 m 115372
3, G.651.1 G50125 PC aqua Duplex 2.0 m 115373
3, G.651.1 G50125 PC aqua Duplex 3.0 m 115474
3, G.651.1 G50125 PC aqua Duplex 5.0 m 115435
3, G.651.1 G50125 PC aqua Duplex 7.5 m 118359
3, G.651.1 G50125 PC aqua Duplex 10.0 m 115475
4, G.651.1 G50125 PC heather violet Duplex 1.0 m 116547
4, G.651.1 G50125 PC heather violet Duplex 2.0 m 115531
4, G.651.1 G50125 PC heather violet Duplex 3.0 m 116548
4, G.651.1 G50125 PC heather violet Duplex 5.0 m 115682
4, G.651.1 G50125 PC heather violet Duplex 10.0 m 116550
5, WBMMF G50125 PC lime green Duplex 1.0 m 124303
5, WBMMF G50125 PC lime green Duplex 2.0 m 124304
5, WBMMF G50125 PC lime green Duplex 3.0 m 124305
5, WBMMF G50125 PC lime green Duplex 5.0 m 124306
5, WBMMF G50125 PC lime green Duplex 7.5 m 124307
5, WBMMF G50125 PC lime green Duplex 10.0 m 124308

# FIBRE OPTIC CONNECTIVITY PATCH CABLE SC-SC

# Fibre optic patch cable Design: SC-SC

- For jumpering in distribution enclosures or as a device connection cable
- Structure: I-V(ZN)H cable (tight buffer, Mini Zip) with connectors assembled on both sides
- Dimensions: 2.8x5.6 mm
- Quality grade: Grade B
- Polarity changeable
- Sheath: halogen-free (LSZH)



Fibre quality	Fibre type	Polish	Sheath colour	Design	Length	Article-No.	Fig.
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	1.0 m	115897	1
OS2, G.657.A2	E9/125	APC 8°	yellow	Duplex	2.0 m	115898	
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	3.0 m	117273	
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	5.0 m	115899	
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	10.0 m	117928	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	1.0 m	115253	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	2.0 m	115254	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	3.0 m	115255	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	5.0 m	115256	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	10.0 m	115340	
OM3, G.651.1	G50125	PC	aqua	Duplex	1.0 m	115331	
OM3, G.651.1	G50125	PC	aqua	Duplex	2.0 m	115332	
OM3, G.651.1	G50125	PC	aqua	Duplex	3.0 m	115333	
OM3, G.651.1	G50125	PC	aqua	Duplex	5.0 m	115334	
OM3, G.651.1	G50125	PC	aqua	Duplex	7.5 m	118493	
OM3, G.651.1	G50125	PC	aqua	Duplex	10.0 m	117257	
OM4, G.651.1	G50125	PC	heather violet	Duplex	1.0 m	115921	
OM4, G.651.1	G50125	PC	heather violet	Duplex	2.0 m	115920	
OM4, G.651.1	G50125	PC	heather violet	Duplex	7.5 m	121801	
OM4, G.651.1	G50125	PC	heather violet	Duplex	10.0 m	119100	

# FIBRE OPTIC CONNECTIVITY PATCH CABLE E-2000<sup>®</sup>-E-2000<sup>®</sup>

### Fibre optic patch cable Design: E-2000<sup>®</sup>-E-2000<sup>®</sup>

- For jumpering in distribution enclosures or as a device connection cable
- Structure: I-V(ZN)H cable (tight buffer, Mini Zip) with connectors assembled on both sides
- Dimensions: 2.8x5.6 mm
- Quality grade: Grade B
- Sheath: halogen-free (LSZH)



Fibre quality	Fibre type	Polish	Sheath colour	Design	Length	Article-No.	Fig.
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	1.0 m	115516	1
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	2.0 m	115301	
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	3.0 m	115517	
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	5.0 m	115498	
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	7.5 m	118494	
0S2, G.657.A2	E9/125	APC 8°	yellow	Duplex	10.0 m	116338	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	1.0 m	115971	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	2.0 m	115972	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	5.0 m	115973	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	10.0 m	116337	
OM3, G.651.1	G50125	PC	aqua	Duplex	1.0 m	115526	
OM3, G.651.1	G50125	PC	aqua	Duplex	2.0 m	115511	
OM3, G.651.1	G50125	PC	aqua	Duplex	3.0 m	115527	
OM3, G.651.1	G50125	PC	aqua	Duplex	5.0 m	115528	
OM4, G.651.1	G50125	PC	heather violet	Duplex	1.0 m	117391	
OM4, G.651.1	G50125	PC	heather violet	Duplex	2.0 m	117392	
OM4, G.651.1	G50125	PC	heather violet	Duplex	4.0 m	117393	

# FIBRE OPTIC CONNECTIVITY PATCH CABLE ST-ST

# Fibre optic patch cable Design: ST-ST

- For jumpering in distribution enclosures or as a device connection cable
- Structure: I-V(ZN)H cable (tight buffer, Mini Zip) with connectors assembled on both sides
- Dimensions: 2.8x5.6 mm
- Quality grade: Grade B
- Sheath: halogen-free (LSZH)



Fibre quality	Fibre type	Polish	Sheath colour	Design	Length	Article-No.	Fig.
0S2, G.657.A2	E9/125	PC	yellow	Duplex	1.0 m	115514	1
0S2, G.657.A2	E9/125	PC	yellow	Duplex	2.0 m	115358	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	3.0 m	115515	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	5.0 m	115359	
0S2, G.657.A2	E9/125	PC	yellow	Duplex	10.0 m	115360	
OM3, G.651.1	G50125	PC	aqua	Duplex	1.0 m	115523	
OM3, G.651.1	G50125	PC	aqua	Duplex	2.0 m	115504	
OM3, G.651.1	G50125	PC	aqua	Duplex	3.0 m	115524	
OM3, G.651.1	G50125	PC	aqua	Duplex	5.0 m	115525	
OM3, G.651.1	G50125	PC	aqua	Duplex	7.5 m	122584	
OM3, G.651.1	G50125	PC	aqua	Duplex	10.0 m	116457	

# FIBRE OPTIC CONNECTIVITY UNIBOOT PATCH CABLE

### **Uniboot patch cable**

- For jumpering in distributors in data centers or with high packing density
- Structure: I-V(ZN)H cable (tight buffer, Mini Zip) with connectors assembled on both sides
- Cable diameter: 2.8 mm
- Sheath: halogen-free (LSZH)
- 2 fibres in one cable
- Polarity change due to turning possibility of webbing
- Fibre quality: OS2, OM3, OM4, OM5
- OM5 as per TIA-492AAAE for applications up to 100 Gbit over 2 fibres
- Polish: PC, APC on request



Connector	Fibre quality	Polish	Sheath colour	Length	Article-No.	Fig.
LC	0S2, G.657.A2	PC	yellow	1.0 m	123188	1
LC	0S2, G.657.A2	PC	yellow	2.0 m	123191	
LC	0S2, G.657.A2	PC	yellow	3.0 m	123192	
LC	0S2, G.657.A2	PC	yellow	5.0 m	123193	
LC	0S2, G.657.A2	PC	yellow	7.0 m	123194	
LC	0S2, G.657.A2	PC	yellow	10.0 m	123195	
LC	0M3, G.651.1	PC	aqua	1.0 m	123189	
LC	OM3, G.651.1	PC	aqua	2.0 m	123196	
LC	0M3, G.651.1	PC	aqua	3.0 m	123197	
LC	0M3, G.651.1	PC	aqua	7.0 m	123199	
LC	0M3, G.651.1	PC	aqua	5.0 m	123198	
LC	OM3, G.651.1	PC	aqua	10.0 m	123200	
LC	OM4, G.651.1	PC	heather violet	1.0 m	123190	
LC	OM4, G.651.1	PC	heather violet	2.0 m	123201	
LC	OM4, G.651.1	PC	heather violet	3.0 m	123202	
LC	OM4, G.651.1	PC	heather violet	5.0 m	123203	
LC	OM4, G.651.1	PC	heather violet	7.0 m	123204	
LC	OM4, G.651.1	PC	heather violet	10.0 m	123205	
LC	OM5, WBMMF	PC	lime green	5.0 m	124312	

# ACCESSORIES, CLEANING AND TOOLS

### LWL launch reel enclosure

- Durability of transport case due to polypropylene copolymer
- Drop-proof, airtight, watertight and dustproof (IP 67)
- Inserted connectors are of high quality and have a high life expectancy
- Plugging cycles up to 2000
- Corrosion protection through the use of stainless steel or aluminium

Fibre quality	Fibre type	Polish	Connector 1	Connector 2	Length (m)	Article-No.
0S2, G.652.D	E9/125	APC 8°	SC	SC	1000	120874
0S2, G.652.D	E9/125	APC 8°	SC	SC	550	120871
0S2, G.652.D	E9/125	APC 8°	E-2000®	E-2000®	1000	120876
0S2, G.652.D	E9/125	APC 8°	E-2000®	E-2000®	550	120873
0S2, G.652.D	E9/125	APC 8°	LC	LC	1000	120875
0S2, G.652.D	E9/125	APC 8°	LC	LC	550	120872
OM4, G.651.1	G50/125	РС	SC	SC	150	120883
OM4, G.651.1	G50/125	РС	SC	SC	500	120892
OM4, G.651.1	G50/125	РС	LC	LC	150	120884
OM4, G.651.1	G50/125	РС	LC	LC	500	120893
OM4, G.651.1	G50/125	РС	E-2000®	E-2000®	150	120885
OM4, G.651.1	G50/125	РС	E-2000®	E-2000®	500	120894



# FIBRE OPTIC CONNECTIVITY

# ACCESSORIES, CLEANING AND TOOLS

### Fibre optic dummy plug

• To cover unused fibre optic breakouts

Article	Article-No.	Fig.
To cover SC-SX-, E-2000 $^{\odot}$ -SX-, LC-DX- or MTRJ breakouts	112379	1
To cover SC-DX,LC-Quad breakouts	106768	
To cover ST-SX, FC-SX or DIN-SX breakouts	105315	
To cover E-2000®-DX breakouts	118340	

# **Cable gland**

- Protection class: IP 65
- Incl. locknut
- Material: polyamide
- Colour: similar to RAL 7035 (light grey)

Article	Article-No.	Fig.
M20 x 1,5	113166	1
M25 x 1,5	113167	



- Type: Zetclip 500 S
- Adhesive
- Inside diameter: 13 mm

Article	Article-No.
Round cable clamp	101324

# Z

# **Strain relief strap**

- Velcro strap for fixing cables
- Width: 16 mm
- Roll: 25 m
- Colour: Black

Article	Article-No.
Strain relief tape	113164





(1)

# FIBRE OPTIC CONNECTIVITY ACCESSORIES, CLEANING AND TOOLS

# Hook-and-loop cable clip (velcro)

- Dimensions (LxH): 205x12 mm
- Colour: black

Article	Article-No.
Hook-and-loop cable clip (velcro)	116624



# Splice cassette holder UC19

- For 8 single circuit management (SCM) or 4 multi circuit management (MCM) splice cassettes incl. fibre routing for radius limitation
- Dimensions (WXHXL): 158.2x62.7x18.0 mm
- Screw dimension 25x25 mm for M3 countersunk head screw

Article	Article-No.	Fig.
Splice cassette carrier plate UC19	123393	1



# Splice cassette cover UC19

• Transparent cover for single circuit management (SCM) or multi circuit management (MCM) splice cassettes

Article	Article-No.
Splice cassette cover UC19	123394

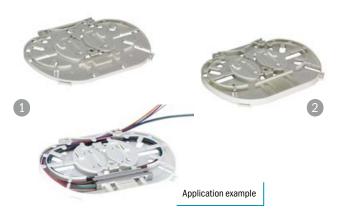


# FIBRE OPTIC CONNECTIVITY

# **ACCESSORIES, CLEANING AND TOOLS**

### Splice cassette UC19

- Single circuit management (SCM) or multi circuit management (MCM)
- · Integrated individual storage of crimp or shrink splice protectors
- Incl. integrated cross-connect unit, the fibres can be inserted into the splice cassette from one side. A change of direction can then take place in the cassette so that the splice can be laid down correctly again
- Storage of up to 2.1 m excess fibre length with a 250 µm fibre
- · Bend radius: 30 mm
- · Labelling field for labelling
- Dimensions (WxHxL): CobiNet splice cassette 4 mm: 4x140x111 mm or CobiNet splice cassette 8 mm: 8x140x111 mm
- Labeling field for labeling
- Dimensions (WxHxL): CobiNet splice cassette 4 mm: 4x140x111 mm or CobiNet splice cassette 8 mm: 8x140x111 mm



Article	Splice cassette height	Splice	Management	Integrated ind. splice holder	Article-No.	Fig.
Splice cassette UC19-404	4 mm	Crimp	SCM	4	123395	1
Splice cassette UC19-406	4 mm	Crimp	SCM	6	123396	
Splice cassette UC19-412	4 mm	Crimp	SCM	12	123397	
Splice cassette UC19-812 mm	8 mm	Crimp	МСМ	12	123398	2
Splice cassette UC19-824	8 mm	Crimp	МСМ	24	123399	
Splice cassette UC19-8002 incl. storage for 2 PLC splitter 4x7 mm	8 mm	Crimp	Crimp	12	123815	

# Marking clips for splice cassette UC19

- Marking clips for splice cassette UC19, set of 30 pieces
- Basic colour: white, imprint: black
- Used for cable with diameter 1.9-2.6 mm
- Up to 6 marking clips possible on the splice cassette UC19

Article	Article-No.	Fig.
Marking ring with no.: 0	124393	
Marking ring with no.: 1	124394	3
Marking ring with no.: 2	124395	
Marking ring with no.: 3	124396	
Marking ring with no.: 4	124397	
Marking ring with no.: 5	124398	
Marking ring with no.: 6	124399	
Marking ring with no.: 7	124400	
Marking ring with no.: 8	124401	
Marking ring with no.: 9	124402	



# FIBRE OPTIC CONNECTIVITY ACCESSORIES, CLEANING AND TOOLS

### **Splicecassette**

- For the storage of up to 2 x 12 crimp splice protection or 2 x 6 shrink splice protection
- Radius limitation: 30 mm
- Stackable

Article	Article-No.
Splice cassette, bend radius 30 mm	101524



# Splice cassette cover

· Cover for fibre optic splice cassette with 30 mm radius

Article	Article-No.
Splice cassette cover	101537



# **Splice holder**

- For fiber optic splice cassette 101524
- For 6 x shrinkage splice protection or 12 x crimp splice protection

Article	Article-No.	Fig.
Splice holder for 6 x shrinkage splice protection	103571	1
Splice holder for 12 x crimp splice protection	118731	2



# FIBRE OPTIC CONNECTIVITY

# ACCESSORIES, CLEANING AND TOOLS

### **Crimp splice protector**

- For protecting fusion splice of single fibre
- · Metal protector, inside coated with permanently elastic material
- 1 set = 150 pcs
- Length: 30 mm



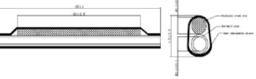
Article	Article-No.
Crimp splice prot ector, Telekom approved	121444

### **Shrink splice protector**

- For protecting fusion splice of single fibre
- With metal reinforcement
- Length: 60 mm
- Diameter: 2.5 mm

Article	Article-No.	Fig.
Shrink splice protector	100840	1
Shrink splice protector for crimp splice protection holder	123650	





D-100

### Fibre optic ferrule cleaner for SC-/FC-/ST-/E-2000<sup>®</sup>-connector

- · Dry cleaner
- · Specifically for the cleaning of single connectors with 2.5 mm ferrule and PC, UPC and APC polish
- · Anti-slip casing prevents slipping of the hand during cleaning
- Anti-static
- · Extendable cleaning tip
- · Incl. dust cap

# Article



Article	Article-No.
Fibre optic ferrule cleaner Cleaning capacity: up to 800 processes Dimensions (WxHxD): 25x25x185 mm	120826

### Fibre optic ferrule cleaner for LC-connector

- Dry cleaner
- · Specifically for the cleaning of single connectors with 1.25 mm ferrule and PC, UPC and APC polish
- · Anti-slip casing prevents slipping of the hand during cleaning
- Anti-static
- · Extendable cleaning tip
- · Incl. dust cap

### Article

Fibre optic ferrule cleaner Cleaning capacity: up to 800 processes Dimensions (WxHxD): 25x25x185 mm

### Fibre optic alcohol dispenser

- · Closeable swab moistener
- Volume: 100 ml



Article-No. 120827

# **Paper cleaning tissues**

- · For cleaning optical fibres
- 1 packaging unit = 280 pcs



Article	Article-No.
Alcohol dispenser	100484

Paper cleaning tissues

Article

Article-No. 105780

# FIBRE OPTIC CONNECTIVITY ACCESSORIES, CLEANING AND TOOLS

### Fibre optic cleaning cassette

- Incl. replaceable cleaning tape
- · Made of antistatic microfibre textile
- For single use
- Dry cleaner
- For cleaning all common fibre optic connector types
- The anti-slip casing prevents slipping of the hand during cleaning
- 600 impression cleaning procedures
- Additional cleaning liquid, e.g. alcohol is not required

Article	Article-No.	Fig.
Fibre optic cleaning cassette for all established connectors	123989	1
Fibre optic cleaning tape	123988	

- Anti-static
- Incl. dust cap



# Fibre optic cleaner for male MPO-/MTP® connectors

- Incl. cleaning band
- Made of anti-static micro fibre fabric
- For single use
- Dry cleaner
- For cleaning male  $\text{MPO}/\text{MTP}^{\circledast}$  connectors, even if embedded in adapters

### Article

Article-No.

Fibre optic cleaner for male MPO/MTP  $^{\tiny (\! 0\!)}$  and MTRJ connectors 124299

- 600 impression cleaning procedures
- Additional cleaning liquid e.g. alcohol is not required
- Anti-static
- Incl. dust cap



D-102

# FIBRE OPTIC CONNECTIVITY ACCESSORIES, CLEANING AND TOOLS

# **Fibre Optic Cutter**

- For single fibre
- Cutting capacity: up to 48000 cuts
- Rotating knife
- Colour: blue
- Dimensions: 75x63x63 mm
- Weight: 385 g

Article	Article-No.
Fibre optic cutter	123107



# Fibre optic Kevlar®-scissors

• Fine-toothed cutter blade reduces slip for better cutting effect

Article	Article-No.
Fibre optic Kevlar®-scissors	113285



# Fibre optic stripping tool

• For stripping the fibre coating





Article	Fibre coating	Secondary coating diameter	Article-No.	Fig.
Fibre optic stripping tool	900 µm	0.6 - 1.1 mm	100418	1
Fibre optic stripping tool	250 µm	0.18 - 0.30 mm	100417	2

# **FIBRE OPTIC CONNECTIVITY**

# **ACCESSORIES, CLEANING AND TOOLS**

### **Clauss Fibre Stripping Tool WS-5**

- For stripping cable sheaths with diameters 0.6 - 0.8 - 1.0 - 1.3 - 1.6 - 2.0 - 2.6 mm

Article	
Clauss fibre stripping tool WS-5	

100369

Article-No.



# **Miller Fibre Stripping Tool CFS-2**

- Stripping tool's bent handle allows for a good grip. It removes the primary coating and exposes the fibre
- · Stripping of cable sheath through a 1 mm opening
- Stripping of primary coating through a 140 µm opening

Article	Article-No.
Miller fibre stripping tool CFS-2	107899



# **Miller Fibre Stripping Tool**

• Stripping tool allows for the precise removal of the buffer coating. Its blade shows a precision drill hole and a V-shaped opening for the stripping of the primary coating from 250  $\mu$ m to 125  $\mu$ m

Article	Article-No.
Miller fibre stripping tool	106115

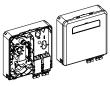


D-104

# DATA CABLE FIBRE OPTIC & COPPER C

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EU construction products regulation (CPR) for data cables	D-106
Universal Cable A/I-DQ(ZN)BH	D-108
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FTTH



DATA CENTRE



FIBRE OPTIC TECHNOLOGY



# DATA CABLE FIBRE OPTIC & COPPER





COPPER DATA NETWORKS



NETWORK CABINETS



TELECOMMUNICATION

# **EU CONSTRUCTION PRODUCTS REGULATION (CPR) FOR DATA CABLES**

The European Union (EU) has recognised the importance of cables in terms of their reaction to fire and brought the disparate national regulations of its member states onto a single rating system. The Construction Products Regulation (Regulation (EU) No. 305/2011) entered into force on 01/07/2013 and is binding for all member states.

As of 01/07/2017 the CE marking as well as a declaration of performance for fibre optic and copper data cables is binding.

CobiNet has been developing and selling cables and wires without PVC or halogens for many years. Environmental friendliness and safety are the priority of CobiNet products. In the event of a fire, PVC and halogen-free cables emit only small amounts of smoke (low smoke density) and no corrosive vapors or toxic gases. In the case of fire, longer escape and rescue times are achieved and greater safety for people and equipment is created. Before CobiNet assigns a fire class to a data cable the cable types undergo extensive testing procedures by an independent institute (notifying body). The procedure implemented until 2017 for data cables covered by the Low Voltage Directive stipulates an assessment of the fire behaviour as per DIN VDE.

This is no longer sufficient for the cables affected by the Construction Products Regulation (CPR). They must also bear a CE marking in accordance with EN 50575. The CE marking is the visible sign of conformity with CPR and all other applicable regulation

Since 01/07/2017 our cables are delivered with CE marking and the corresponding performance class as per CPR.

	Class	Test procedure	Classification criteria	Additional classification
ble	A <sub>ca</sub>	EN ISO 1716	PCS ≤ 2,0 MJ/kg	
non-flammable	B1 <sub>ca</sub>	EN 50399 (30 kW burner) and	$\label{eq:FS} \begin{array}{l} FS \leq 1,75 \text{ m and} \\ THR_{1200s} \leq 10 \text{ MJ and} \\ Peak \ HRR \leq 20 \text{ kW and} \\ FIGRA \leq 120 \ Ws^{-1} \end{array}$	Smoke development and burning dripping/falling off and acid content
		EN 60332-1-2	H ≤ 425 mm	
	B2 <sub>ca</sub>	EN 50399 (20,5 kW burner) and EN 60332-1-2	$FS \le 1,5 \text{ m}; and$ $THR_{1200s} \le 15 \text{ MJ and}$ $Peak \text{ HRR} \le 30 \text{ kW and}$ $FIGRA \le 150 \text{ Ws}^{-1}$ $H \le 425 \text{ mm}$	Smoke development and burning dripping/falling off and acid content
	C <sub>ca</sub>	EN 50399 (20,5 kW burner) and	$\label{eq:FS} \begin{array}{l} FS \leq 2,0 \text{ m; } and \\ THR_{1200s} \leq 30 \text{ MJ } and \\ Peak \text{ HRR} \leq 60 \text{ kW } and \\ und \text{ FIGRA} \leq 300 \text{ Ws}^{-1} \end{array}$	Smoke development and burning dripping/falling off and acid content
		EN 60332-1-2	H ≤ 425 mm	
	D <sub>ca</sub>	EN 50399 (20,5 kW burner) and	$\label{eq:threshold} \begin{array}{l} {\sf THR}_{_{1200s}} \leq 70 \mbox{ MJ and} \\ {\sf Peak \mbox{ HRR}} \leq 400 \mbox{ kW and} \\ {\sf FIGRA} \leq 1300 \mbox{ Ws}^{\cdot 1} \end{array}$	Smoke development and burning dripping/falling off and acid content
ble		EN 60332-1-2	H ≤ 425 mm	
inflammable	E <sub>ca</sub>	EN 60332-1-2	H ≤ 425 mm	
infla	F <sub>ca</sub>	EN 60332-1-2	H > 425 mm	

# Euroclasses for cables as per DIN EN 13501-6:2014-7

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DATA CABLE

# **EU CONSTRUCTION PRODUCTS REGULATION (CPR) FOR DATA CABLES**

# Scope of the Construction Products Regulation

This regulation applies to all cables that are permanently installed in a building as a "construction product". For example, cables and lines that can be installed under plaster, in cable ducts, on cable trays or in shafts.

Connections between terminal equipment and the permanent building wiring are explicitly excluded from the CPR, such as classic device connection cables that connect machines or lights to the power grid or data network. Patch cables therefore do not fall within the scope of the CPR, as they are not permanently installed and can be removed at any time.

### **Declaration of performance**

The CPR classification table comprises six classes from A to F. These are assigned according to heat release and flame spread. Three additional classes each with different characteristics (0 to 2) accommodate additional requirements such as smoke development (s), corrosivity (a) and burning dripping (d).

For each data cable, the declaration of performance must state the Euroclass (see table on left page) used to assess the fire behavior, as well as the smoke development (s), corrosivity (a) and burning drop (d). The declaration of performance must be provided either electronically via the manufacturer's website or in paper form in the national language of the end user.

### Certification

Certification is carried out by accredited testing institutes independent of the manufacturer (notifying body). Depending on which Euroclass is aimed for, the effort required to prepare the certificate of conformity varies. This is illustrated in the following table:

# System of attestation of conformity as per DIN EN 50575:2015-4; VDE 0482-575:2015-4

Euroclasses Reaction to Fire	System of attestation of conformity	Tasks of the notified body
$A_{ca}$ , $B1_{ca}$ , $B2_{ca}$ , $C_{ca}$	1+	Type sample inspection Regular factory auditing Regular sampling from current production
D <sub>ca</sub> , E <sub>ca</sub>	3	Type sample inspection
F <sub>ca</sub>	4	none

# **Clear labeling**

With the help of the CPR symbolism used in this catalogue, you always have the Euroclass of the corresponding cable in view



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# FIBRE OPTIC CABLE UNIVERSAL CABLE A/I-DQ(ZN)BH

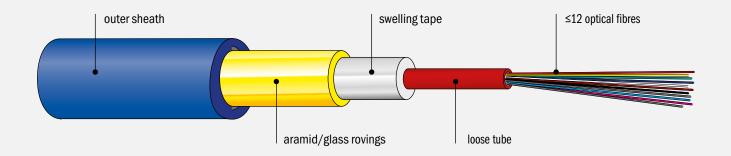
# Usage

- for installation
- in dry pipes outdoors
- on or in covered cable trays or ducts in protected outdoor areas
- indoors in case of increased mechanical requirements
- halogen-free universal coating enables building connections without additional transfer points (splices)
- suitable for structured cabling as per ISO/IEC 11801 and EN  $50173\,$
- suitable for campus (LAN) and backbone networks according to fibre type
- for splice connections and end branch pre-assembly

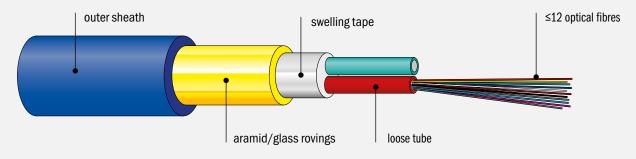
universal cable with central loose tube A/I-DQ(ZN)BH

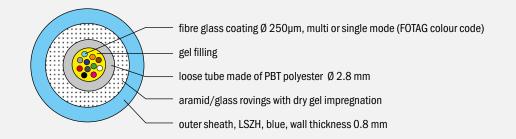
# Structure

- sheath material: LSZH
- fire protection class: Eca
- strain relief glass rovings
- non-metallic rodent protection
- central loose tube
  - typically 1xn fibres
- stranded loose tubes
- typically 2xn fibres



# universal cable with stranded loose tubes A/I-DQ(ZN)BH



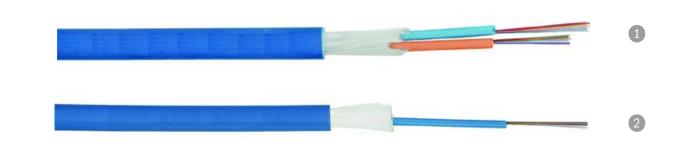


FIBRE OPTIC CABLE UNIVERSAL CABLE A/I-DQ(ZN)BH

#### Fibre optic universal cable, central or stranded loose tubes

- Central loose tube with swelling agents (up to 12 fibres)
- Stranded loose tube with swelling agents (starting 2 x 12 fibres)
- Non-metallic rodent protection
- Sheath: LSZH (halogen-free)





Type designation	Fibre count	Fibre quality	Fibre type	Max. tensile load (N)	Euro-fire pro- tection class	Article-No.	Fig.
A/I-DQ(ZN)BH	1 x 4	OS2, G.652.D	E9/125	1500	E <sub>ca</sub>	124134	
A/I-DQ(ZN)BH	1 x 12	0S2, G.652.D	E9/125	1500	$D_{_{ca}}$ s1 d2 a1	119771	
A/I-DQ(ZN)BH	1 x 12	0S2, G.652.D	E9/125	1500	E <sub>ca</sub>	124138	
A/I-DQ(ZN)BH	2 x 12	OS2, G.652.D	E9/125	1500	D <sub>ca</sub> s1 d2 a1	119779	1
A/I-DQ(ZN)BH	2 x 12	0S2, G.652.D	E9/125	1500	E <sub>ca</sub>	124141	
A/I-DQ(ZN)BH	1 x 4	OM3, G.651.1	G50/125	1500	D <sub>ca</sub> s1 d2 a1	119749	2
A/I-DQ(ZN)BH	1 x 4	OM3, G.651.1	G50/125	1500	E <sub>ca</sub>	124136	
A/I-DQ(ZN)BH	1 x 12	OM3, G.651.1	G50/125	1500	D <sub>ca</sub> s1 d2 a1	119773	
A/I-DQ(ZN)BH	1 x 12	OM3, G.651.1	G50/125	1500	E <sub>ca</sub>	124139	
A/I-DQ(ZN)BH	1 x 4	OM4, G.651.1	G50/125	1500	D <sub>ca</sub> s1 d2 a1	119750	
A/I-DQ(ZN)BH	1 x 4	OM4, G.651.1	G50/125	1500	E <sub>ca</sub>	124137	
A/I-DQ(ZN)BH	1 x 12	OM4, G.651.1	G50/125	1500	$D_{_{ca}}$ s1 d2 a1	119774	
A/I-DQ(ZN)BH	1 x 12	OM4, G.651.1	G50/125	1500	E <sub>ca</sub>	124140	
A/I-DQ(ZN)BH	2 x 12	OM4, G.651.1	G50/125	1500	D <sub>ca</sub> s1 d2 a1	119786	
A/I-DQ(ZN)BH	2 x 12	OM4, G.651.1	G50/125	1500	E <sub>ca</sub>	124142	

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## FIBRE OPTIC CABLE OUTDOOR CABLE A-DQ(ZN)B2Y

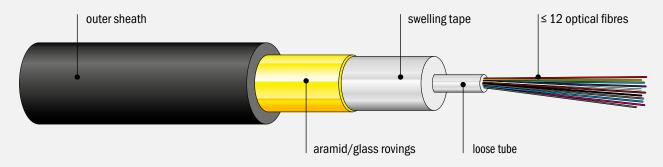
#### Usage

- for installation
- in dry pipes outdoors
- on outdoor cable trays
- In outdoor cable ducts
- suitable for structured cabling as per ISO/IEC 11801 and EN 50173
- suitable for city (MAN), campus (LAN) and backbone networks according to fibre type
- · for splice connections and end branch pre-assembly

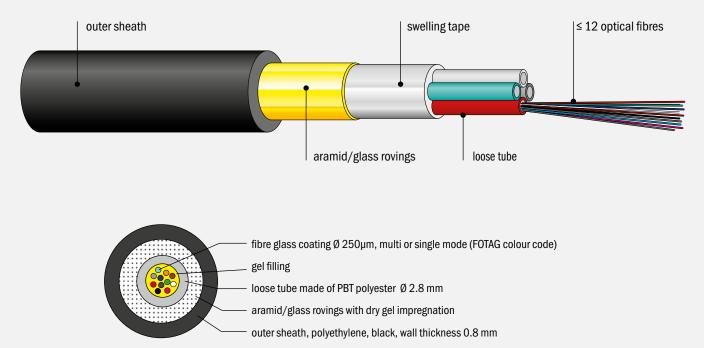
#### universal cable with central loose tube A/I-DQ(ZN)BH

#### Structure

- cable sheath: PE, UV resistant
- strain relief glass rovings
- non-metallic rodent protection
- central loose tube
- typically 1xn fibres
- stranded loose tubes
- typically 2xn fibres



#### universal cable with stranded loose tubes A/I-DQ(ZN)BH



## OUTDOOR CABLE A-DQ(ZN)B2Y

#### Fibre optic outdoor cable, central or stranded loose tube

- Central loose tube with swelling agents (up to 12 fibres)
- Stranded loose tube with swelling agents (starting 2 x 12 fibres)
- Non-metallic rodent protection
- Sheath: PE

Type designation	Fibre count	Fibre quality	Fibre type	Max. tensile load (N)	Article-No.	Fig.
A-DQ(ZN)B2Y	1 x 4	0S2, G.652.D	E9/125	1500	115730	1
A-DQ(ZN)B2Y	2 x 12	0S2, G.652.D	E9/125	1500	115731	
A-DQ(ZN)B2Y	1 x 12	0S2, G.652.D	E9/125	1500	124645	
A-DQ(ZN)B2Y	1 x 12	OM3, G.651.1	G50/125	1500	115509	
A-DQ(ZN)B2Y	1 x 12	OM4, G.651.1	G50/125	1500	115748	
A-DQ(ZN)B2Y	2 x 12	OM4, G.651.1	G50/125	1500	119821	

1

## PREASSEMBLED UNIVERSAL CABLE WITH CABLE DISTRIBUTOR (TRUNK CABLE)



#### Usage

- · for connecting floors or distribution centers
- · no splicing work is necessary at installation site
- for installation
- in dry pipes outdoors
- on covered cable trays in protected outdoor areas
- in covered cable ducts in protected outdoor areas
- indoors in case of increased mechanical requirements
- suitable for structured cabling as per ISO/IEC 11801 and EN 50173
- measurement log is enclosed with delivery

#### Structure

- · plastic cable divider
- · central loose tube
- sheath material: LSZH
- · sheath colour: blue
- including retraction aids on sides A + B
- stepped connector (different length of single fibres after cable divider)
- Y-connector (length of individual fibres exiting cable distributor)
- shortest: 42 cm
- longest: 52.5 cm to 100 cm
- thread distributor: M20
- · diameter of corrugated pipe: 22 mm
- max. traction
- at distributor: 800 N
- at traction element: 300 N
- at naked cable: 1500 N
- max. transverse pressure on cable: 150 N/cm
- minimum temporary bend radius: 60 mm

## LC - LC TRUNK UNIVERSAL CABLE OUTDOOR/INDOOR

#### Fibre Optic Universal Cable indoor/outdoor (Trunk cable) LC-LC Cable type: A/I-DQ(ZN)BH

- Non-metallic rodent protection
- Sheath: LSZH (halogen-free)
- With swelling agents
- Y-connector: 1m stepped
- Retraction aid: on both sides A + B

Fibre count	Fibre quality	Polish	Fibre type	Article-No.
4	0S2, G.652.D	PC	E9/125	121042
8	OS2, G.652.D	PC	E9/125	121043
12	0S2, G.652.D	PC	E9/125	121140
24	0S2, G.652.D	PC	E9/125	121045
48	OS2, G.652.D	PC	E9/125	121046
4	OM3, G.651.1	PC	G50/125	121052
8	OM3, G.651.1	PC	G50/125	121053
12	OM3, G.651.1	PC	G50/125	121054
24	OM3, G.651.1	PC	G50/125	121055
48	OM3, G.651.1	PC	G50/125	121056
4	OM4, G.651.1	PC	G50/125	121057
8	OM4, G.651.1	PC	G50/125	121058
12	OM4, G.651.1	PC	G50/125	121059
24	OM4, G.651.1	PC	G50/125	121060
48	OM4, G.651.1	PC	G50/125	121061

**Order-Info:** Please specify length with inquiries or orders



## SC - SC TRUNK UNIVERSAL CABLES OUTDOOR/INDOOR

#### Fibre Optic Universal Cable (Trunk cable) SC-SC Cable type: A/I-DQ(ZN)BH

- Non-metallic rodent protection
- Sheath: LSZH (halogen-free)With swelling agents
- Y-connector: 1m stepped
- Retraction aid: on both sides A + B

Fibre count	Fibre quality	Polish	Fibre type	Article-No.
4	0S2, G.652.D	PC	E9/125	121022
8	0S2, G.652.D	PC	E9/125	121023
12	0S2, G.652.D	PC	E9/125	121024
24	0S2, G.652.D	PC	E9/125	121025
48	0S2, G.652.D	РС	E9/125	121026
4	OM3, G.651.1	РС	G50/125	121032
8	OM3, G.651.1	РС	G50/125	121033
12	OM3, G.651.1	PC	G50/125	121034
24	OM3, G.651.1	PC	G50/125	121035
48	OM3, G.651.1	РС	G50/125	121036
4	OM4, G.651.1	РС	G50/125	121037
8	OM4, G.651.1	РС	G50/125	121038
12	OM4, G.651.1	PC	G50/125	121039
24	OM4, G.651.1	PC	G50/125	121040
48	OM4, G.651.1	PC	G50/125	121041

**Order-Info:** Please specify length with inquiries or orders



E-2000<sup>®</sup>/APC 8°-E-2000<sup>®</sup>/APC 8° CABLE OUTDOOR/INDOOR

## Fibre Optic Universal Cable (Trunk cable) E-2000 $^{\circ}/APC$ 8 $^{\circ}$ - E-2000 $^{\circ}/APC$ 8 $^{\circ}$ Cable type: A/I-DQ(ZN)BH

- Non-metallic rodent protection
- Sheath: LSZH (halogen-free)With swelling agents
- Y-connector: 1 m stepped
- Retraction aid: on both sides A + B

Fibre count	Fibre quality	Polish	Fibre type	Article-No.	
4	0S2, G.652.D	APC	E9/125	121102	
8	OS2, G.652.D	APC	E9/125	121103	
12	0S2, G.652.D	APC	E9/125	121104	
24	0S2, G.652.D	APC	E9/125	121105	
Order-Info: Please specify length with inquiries or orders					



## ST - ST TRUNK UNIVERSAL CABLE OUTDOOR/INDOOR

## Fibre Optic Universal Cable (Trunk cable) ST/PC - ST/PC Cable type: A/I-DQ(ZN)BH

- · Non-metallic rodent protection
- Sheath: LSZH (halogen-free)
- · With swelling agents

#### • Y-connector: 1 m stepped

• Retraction aid: on both sides A + B



Fibre count	Fibre quality	Polish	Fibre type	Article-No.	
4	OS2, G.652.D	PC	E9/125	121002	
8	OS2, G.652.D	PC	E9/125	121003	
12	OS2, G.652.D	PC	E9/125	121004	
24	OS2, G.652.D	PC	E9/125	121005	
48	OS2, G.652.D	PC	E9/125	121006	
4	OM3, G.651.1	PC	G50/125	121012	
8	OM3, G.651.1	PC	G50/125	121013	
12	OM3, G.651.1	PC	G50/125	121014	
24	OM3, G.651.1	PC	G50/125	121015	
48	OM3, G.651.1	PC	G50/125	121016	
4	OM4, G.651.1	PC	G50/125	121017	
8	OM4, G.651.1	PC	G50/125	121018	
12	OM4, G.651.1	PC	G50/125	121019	
24	OM4, G.651.1	PC	G50/125	121020	
48	OM4, G.651.1	РС	G50/125	121021	
Order-Info: Please specify length with inquiries or orders					



Application example

You can find all our catalogue items in the online shop at www.cobinet.com/shop

## PREASSEMBLED OUTDOOR CABLE WITH CABLE DISTRIBUTOR (TRUNK CABLE)



#### Usage

- for installation
- in dry pipes outdoors
- on outdoor cable trays
- in outdoor cable ducts
- for end branch pre-assembly according to fibre type suitable for City- (MAN), Campus- (LAN) and backbone networks
- · no splicing work is necessary at installation site
- suitable for structured cabling as per ISO/IEC 11801 and EN 50173
- measurement log is enclosed with delivery



#### Structure

- · plastic cable divider
- · central loose tube
- sheath material: PE (polyethylene)
- · sheath colour: black
- including retraction aids on sides A + B
- stepped connector (different length of single fibres after cable divider)
- Y-connector (length of individual fibres exiting cable distributor)
- shortest: 42 cm
- longest: 52.5 cm to 100 cm
- thread distributor: M20
- · diameter of corrugated pipe: 22 mm
- max. traction
- at distributor: 800 N
- at traction element: 300 N
- at naked cable: 1500 N
- max. transverse pressure on cable: 150 N/cm
- minimum temporary bend radius: 60 mm

## LC - LC TRUNK OUTDOOR CABLE

## Fibre Optic Outdoor Cable (Trunk cable) LC - LC Cable type: A/I-DQ(ZN)BH

- Incl. swelling agents
- Non-metallic rodent protection
- Sheath: PE
- Y-connector up to 1 m stepped
- Retraction aid: on one side

Fibre count	Fibre quality	Polish	Fibre type	Article-No.
4	0S2, G.652.D	PC	E9/125	120953
8	0S2, G.652.D	PC	E9/125	120954
12	0S2, G.652.D	PC	E9/125	120955
24	0S2, G.652.D	PC	E9/125	120956
4	OM3, G.651.1	PC	G50/125	120962
8	OM3, G.651.1	PC	G50/125	120963
12	OM3, G.651.1	PC	G50/125	120964
24	OM3, G.651.1	PC	G50/125	120965
4	OM4, G.651.1	PC	G50/125	121233
8	OM4, G.651.1	PC	G50/125	121234
12	OM4, G.651.1	PC	G50/125	121235
24	OM4, G.651.1	PC	G50/125	121236
Ord	er-Info: Please spe	cifv length wi	th inquiries or or	ders



## **SC - SC TRUNK OUTDOOR CABLE**

#### Fibre Optic Outdoor Cable (Trunk cable) SC - SC Cable type: A-DQ(ZN)B2Y

- Incl. swelling agents
- Non-metallic rodent protection
- Sheath: PE
- Y-connector: 1 m stepped
- Retraction aid: on both sides A + B

Fibre count	Fibre quality	Polish	Fibre type	Article-No.	
4	OS2, G.652.D	PC	E9/125	120940	
8	OS2, G.652.D	PC	E9/125	120941	
12	OS2, G.652.D	PC	E9/125	120942	
24	OS2, G.652.D	PC	E9/125	120943	
4	OM3, G.651.1	PC	G50/125	120949	
8	OM3, G.651.1	PC	G50/125	120950	
12	OM3, G.651.1	PC	G50/125	120951	
24	OM3, G.651.1	PC	G50/125	120952	
4	OM4, G.651.1	PC	G50/125	121229	
8	OM4, G.651.1	PC	G50/125	121230	
12	OM4, G.651.1	PC	G50/125	121231	
24	OM4, G.651.1	PC	G50/125	121232	
Order-Info: Please specify length with inquiries or orders					



Application example

## E-2000<sup>®</sup> 8° - E-2000<sup>®</sup> 8° TRUNK OUtDOOR CABLE

## Fibre Optic Outdoor Cable (Trunk cable) E-2000 $^{\circ}/APC$ 8 $^{\circ}$ - E-2000 $^{\circ}/APC$ 8 $^{\circ}$ Cable type: A-DQ(ZN)B2Y

- Incl. swelling agents
- Non-metallic rodent protection
- Sheath: PE
- Y-connector: 1 m stepped
- Retraction aid: on both sides A + B

Fibre count	Fibre quality	Polish	Fibre type	Article-No.
4	0S2, G.652.D	APC	E9/125	120989
8	0S2, G.652.D	APC	E9/125	120990
12	0S2, G.652.D	APC	E9/125	120991
24	0S2, G.652.D	APC	E9/125	120992

**Order-Info:** Please specify length with inquiries or orders



## **ST - ST TRUNK OUTDOOR CABLE**

#### Fibre Optic Outdoor Cable (Trunk cable) ST - ST Cable type: A-DQ(ZN)B2Y

- Incl. swelling agents
- Non-metallic rodent protection
- Sheath: PE
- Y-connector up to 1 m stepped
- Retraction aid: on both sides A + B

Fibre count	Fibre quality	Polish	Fibre type	Article-No.	
4	0S2, G.652.D	PC	E9/125	120927	
8	0S2, G.652.D	PC	E9/125	120928	
12	OS2, G.652.D	PC	E9/125	120929	
24	0S2, G.652.D	РС	E9/125	120930	
4	OM3, G.651.1	РС	G50/125	120936	
8	OM3, G.651.1	PC	G50/125	120937	
12	OM3, G.651.1	PC	G50/125	120938	
4	OM4, G.651.1	РС	G50/125	121225	
8	OM4, G.651.1	PC	G50/125	121226	
12	OM4, G.651.1	PC	G50/125	121227	
24	OM4, G.651.1	РС	G50/125	121228	
Order-Info: Please specify length with inquiries or orders					



## **PREASSEMBLED INDOOR CABLE (BREAKOUT CABLE)**



#### Usage

- for installation
- in dry rooms
- in indoor pipes
- on indoor cable trays
- in indoor cable ducts
- for connecting floors or distribution centers inside a building
- for splice connections and end branch pre-assembly according to fibre type suitable for backbone networks and for usage as connection and patch cable
- · suitable for breakout cables for direct connector assembly
- · no splicing work is necessary at installation site
- suitable for structured cabling as per ISO/IEC 11801 and EN 50173
- · measurement log is enclosed with delivery

#### **Structure**

- · plastic cable divider
- tight buffer fibre
- sheath material: LSZH
- fire protection class: Eca
- sheath colour
- OS2: yellow
- OM3: aqua
- OM4: heather violet
- including retraction aids on sides A + B
- stepped connector (different length of single fibres after cable divider)
- · Y-connector (length of individual fibres exiting cable distributor)
- shortest: 20 cm
- longest: 31 cm to 100 cm
- thread distributor: M16, M20
- diameter of corrugated pipe: 22 mm, 29 mm
- max. traction
- at screw connection: 300 N
- at traction element: 300 N
- temporarily at naked cable: 900 N
- permanently at naked cable 450 N
- max. transverse pressure on cable: 1500 N/cm
- minimum temporary bend radius: 75 mm

## **LC - LC TRUNK INDOOR CABLE**

#### Fibre Optic Indoor Cable (Trunk cable) LC - LC Cable type: I-V(ZN)HH

- Tight buffer fibre
- Sheath: LSZH (halogen-free)
- Y-connector up to 1 m stepped
- Retraction aid: on one side

Fibre count	Fibre quality	Polish	Fibre type	Article-No.
4	OS2, G.652.D	PC	E9/125	121159
8	OS2, G.652.D	PC	E9/125	121160
12	OS2, G.652.D	PC	E9/125	121161
24	OS2, G.652.D	PC	E9/125	121162
4	OM3, G.651.1	PC	G50/125	121167
8	OM3, G.651.1	PC	G50/125	121168
12	OM3, G.651.1	PC	G50/125	121169
24	OM3, G.651.1	PC	G50/125	121170
4	OM4, G.651.1	PC	G50/125	121171
8	OM4, G.651.1	PC	G50/125	121437
12	OM4, G.651.1	PC	G50/125	121438
24	OM4, G.651.1	PC	G50/125	121439

**Order-Info:** Please specify length with inquiries or orders

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## FIBRE OPTIC CABLE SC - SC TRUNK INDOOR CABLE

#### Fibre Optic Indoor Cable (Trunk cable) SC - SC Cable type: I-V(ZN)HH

- Tight buffer fiber
- Sheath: LSZH (halogen-free)
- Y-connector up to 1 m stepped
- Retraction aid: on one side

Fibre count	Fibre quality	Polish	Fibre type	Article-No.	
4	OS2, G.652.D	PC	E9/125	121146	
8	OS2, G.652.D	PC	E9/125	121147	
12	0S2, G.652.D	PC	E9/125	121148	
24	0S2, G.652.D	PC	E9/125	121149	
4	OM3, G.651.1	PC	G50/125	121154	
8	OM3, G.651.1	PC	G50/125	121155	
12	OM3, G.651.1	PC	G50/125	121156	
24	OM3, G.651.1	РС	G50/125	121157	
4	OM4, G.651.1	PC	G50/125	121158	
8	OM4, G.651.1	PC	G50/125	121440	
12	OM4, G.651.1	PC	G50/125	121441	
24	OM4, G.651.1	PC	G50/125	121442	
Order-Info: Please specify length with inquiries or orders					



Application example

## E-2000<sup>®</sup> 8° - E-2000<sup>®</sup> 8° TRUNK INDOOR CABLE

## Fibre Optic Indoor Cable (Trunk cable) E-2000 $^{\circ}$ /APC 8° - E-2000 $^{\circ}$ /APC 8° Cable type: I-V(ZN)HH

- Tight buffer fibre
- Sheath: LSZH (halogen-free)
- Y-connector up to 1 m stepped
- Retraction aid: on one side

Fibre count	Fibre quality	Polish	Fibre type	Article-No.
4	0S2, G.652.D	APC	E9/125	121198
8	0S2, G.652.D	APC	E9/125	121199
12	0S2, G.652.D	APC	E9/125	121200
24	0S2, G.652.D	APC	E9/125	121201

Order-Info: Please specify length with inquiries or orders



## **ST - ST TRUNK INDOOR CABLE**

#### Fibre Optic Indoor Cable (Trunk cable) ST - ST Cable type: I-V(ZN)HH

- Tight buffer fibre
- Sheath: LSZH (halogen-free)
- Y-connector up to 1 m stepped
- Retraction aid: on one side

Fibre count	Fibre quality	Polish	Fibre type	Article-No.
4	0S2, G.652.D	PC	E9/125	121129
8	OS2, G.652.D	PC	E9/125	121131
12	0S2, G.652.D	PC	E9/125	121132
24	0S2, G.652.D	PC	E9/125	121133
4	OM3, G.651.1	PC	G50/125	121141
8	OM3, G.651.1	PC	G50/125	121142
12	OM3, G.651.1	PC	G50/125	121143
24	OM3, G.651.1	PC	G50/125	121144

CPF

Order-Info: Please specify length with inquiries or orders



## DATA CABLE COPPER, SHIELDED

## **OVERVIEW OF DATA CABLES FOR COPPER DATA NETWORKS**

In office buildings cable infrastructures are often operated for 10 to 15 years. If this is the case, copper data cables in use must cover the requirements of future technological developments.

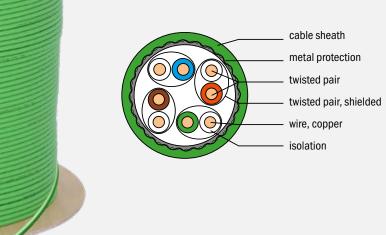
CobiNet's shielded S/FTP data cables are particularly futureproof data cables. With their bandwidth of up to 1500 MHz and a transmission performance of up to 25 Gbit they are perfectly suited for setting up a 10 Gbit Ethernet network and also fulfill the requirements of increasing transmission speeds in the future.

In addition to the high bandwidth reserve, today's data cables must transmit power from 15 watts (IEEE 802.3af) to 100 watts (4PPoE (PoE++), IEEE 802.3bt, type 4) due to the increased implementation of Power over Ethernet (PoE) applications. Depending on the PoE variant used, this results in an excessive temperature rise within the cable bundles, which negatively effects the transmission properties. To keep this temperature rise as low as possible, the implementation of high-quality data cables with large cable cross sections is recommended. CobiNet data cables are optimized for usage with Power over Ethernet. Due to the design and the generous layout of the conductor cross-sections, they offer optimum operation of PoE applications with the lowest possible heat increase of the cable bundles.

#### Features:

- Future-proof: Suitable for all current transmission standards and future requirements in structured building cabling.
- Certified: All CobiNet data cables are certified and approved in accordance with the European Construction Products Regulation (CPR) and available in various designs of Euroclass D<sub>ca</sub> to B2ca depending on the cable type.
- Reliable: CobiNet data cables allow the safe operation of PoE applications up to 100 watts and are designed to minimize temperature rise of cable bundles.





## DATA CABLE COPPER, SHIELDED

## OVERVIEW OF DATA CABLES FOR COPPER DATA NETWORKS

Cable type	CobiNet 1500 CC SX S/FTP Cat. 7A	CobiNet 1500 CC DX Cat. 7A	CobiNet 1300 CC SX S/FTP Cat. 7A	CobiNet 1300 CC DX S/FTP Cat. 7A	CobiNet 1300 CC SX S/FTP Cat. 7A	CobiNet 1300 CC DX S/FTP Cat. 7A	CobiNet 1200 CC SX S/FTP Cat. 7A	CobiNet 1200 CC DX S/FTP Cat. 7A	CobiNet 1000 CC SX S/FTP Cat. 7	CobiNet 1000 CC DX S/FTP Cat. 7
Structure	simplex	duplex	simplex	duplex	simplex	duplex	simplex	duplex	simplex	duplex
item no.	118878	118877	123640	123641	119087	123487	123488	123489	114757	114758
ACR <sup>1)</sup> 100 MHz	92	92	88	88	88	88	83	83	83	83
200 Mhz	77	77	76	76	76	76	70	70	73	73
300 MHz	69	69	70	70	70	70	62	62	66	66
500 MHz	59	59	59	59	59	59	47	47	53	53
600 MHz Kat. 7	50	50	50	50	50	50	41	41	46	46
1000 MHz Kat. 7A	31	31	30	30	30	30	22	22	23	23
1200 MHz	25	25	26	26	26	26	16	16		
1500 MHz	13	13	21	21	21	21				
attenuation <sup>2)</sup>	16,2	16,2	16,5	16,5	16,5	16,5	17,3	17,3	17,3	17,3
max. bandwidth	1500 MHz	1500 MHz	1300 MHz	1300 MHz	1300 MHz	1300 MHz	1200 MHz	1200 MHz	1000 MHz	1000 MHz
NVP (%)	0,78	0,78	0,79	0,79	0,79	0,79	0,78	0,79	0,79	0,79
AWG	22	22	22	22	22	22	23	23	23	23
outside-Ø (mm)	8,2	16,6	7,9	16,0	7,9	16,0	7,6	15,4	7,5	15,2
weight (kg/km)	82	164	79	158	79	158	60	120	60	120
fire retardance	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH
copper number	37	74	35	70	35	70	30	60	28	56
fire class		CPR D <sub>ca</sub>	CPR B2 <sub>ca</sub>	CPR B2 <sub>ca</sub>						

### DATA CABLE COPPER, SHIELDED

## CAT. 7A, 1500 MHZ, AWG 22, UP TO 25 GB, POE++

#### Data cable CobiNet 1500 CC, Cat. 7A

- High-performance Ethernet data cable for bandwidths up to 1500 MHz and transmission rates up to 25 Gbit/s
- · Available as simplex and duplex variant
- Optimized for PoE++ (4-pair PoE; 100 Watt) applications
- Conductor: AWG 22

D-126

- Sheath: LSZH (halogen-free)
- Colour: similar to RAL 6018 (yellow green)



Article	Structure	AWG	Max. bandwidth (MHz)	Euroclass (CPR)	Article-No.
CobiNet 1500 CC SX, Cat. 7A, S/FTP	simplex	22	1500	D <sub>ca</sub> s1 d2 a1	118878
CobiNet 1500 CC DX, Cat. 7A, S/FTP	duplex	22	1500	D <sub>ca</sub> s1 d2 a1	118877

## CAT. 7A, 1300 MHZ, AWG 22, UP TO 25 GB, POE++

#### Data Cable CobiNet 1300 CC, Cat. 7A

- High-performance Ethernet data cable for bandwidths up to 1300 MHz and transmission rates up to 25 Gbit/s
- · Available as simplex and duplex variant
- Optimized for PoE++ (4-pair PoE; 100 Watt) applications
- Conductor: AWG 22
- Sheath: LSZH (halogen-free)
- Colour: similar to RAL 6018 (yellow green)
- Various CPR classifications available



Article	Structure	AWG	Max. bandwidth (MHz)	Euroclass (CPR)	Article-No.
CobiNet 1300 CC SX, Cat. 7A, S/FTP	simplex	22	1300	D <sub>ca</sub> s1 d2 a1	119087
CobiNet 1300 CC DX, Cat. 7A, S/FTP	duplex	22	1300	D <sub>ca</sub> s1 d2 a1	123487
CobiNet 1300 CC SX, Cat. 7A, S/FTP	simplex	22	1300	B2 <sub>ca</sub> s1 b1 a1	123640
CobiNet 1300 CC DX, Cat. 7A, S/FTP	duplex	22	1300	B2 <sub>ca</sub> s1 b1 a1	123641

#### Data cable CobiNet 1200 CC, Cat. 7A

- · Ethernet data cable for bandwidth up to 1200 MHz
- Excellent for 10 Gbit applications
- Available as simplex and duplex variant
- Optimised for PoE/PoE+ applications
- Conductor: AWG 23
- Sheath: LSZH (halogen-free)
- Colour: similar to RAL 6018 (yellow green)



Article	Structure	AWG	Max. bandwidth (MHz)	Euroclass (CPR)	Article-No.
CobiNet 1200 CC SX, Cat. 7A, S/FTP	simplex	23	1200	D <sub>ca</sub> s1 d2 a1	123488
CobiNet 1200 CC DX, Cat. 7A, S/FTP	duplex	23	1200	D <sub>ca</sub> s1 d2 a1	123489

## CAT. 7, 1000 MHZ, AWG 23, UP TO 10 GB, POE+

#### Data cable CobiNet 1000 CC, Cat. 7

- · Ethernet data cable for bandwidth up to 1000 MHz
- Independently monitored quality through participation in the GHMT Premium Verification Program, GHMT PvP certificate
- Optimal for 10 Gbit applications
- · Available as simplex and duplex variant
- Optimised for PoE/PoE+ applications
- Conductor: AWG 23
- Sheath: LSZH (halogen-free)
- Colour: similar to RAL 6018 (yellow green)



Independent additional quality control and certification by Participation in the GHMT PVP program (https://pvp.ghmt.de/index.php/cobinet)

Article	Structure	AWG	Max. bandwidth (MHz)	Euroclass (CPR)	Article-No.
CobiNet 1000 CC SX, Cat. 7, S/FTP	simplex	23	1000	D <sub>ca</sub> s1 d2 a1	114757
CobiNet 1000 CC DX, Cat. 7, S/FTP	duplex	23	1000	D <sub>ca</sub> s1 d2 a1	114758

# **RS18 – THE COBINET RACK SYSTEM WITH THE THIRD 19" DIMENSION**

- installing the components from the front, rear, side and additionally from the top and bottom
- up to 28 rack units more
   19" space due to third rack dimension
- 100% calculation reliability
   6 door types, one price
- quick assembly through handy twopiece side panels and rack doors
- easy one person alignment of the rack due to inside adjustable feet
- for the greatest capacity possible: high load capacity of 1500 kg
- saving time, resources and costs on site because of pre-assembled delivery
- fits almost everywhere due to wide variety: heights from 22 to 52 RU, depths from 800 to 1200 mm, widths from 600 to 800 mm, stackable

## www.cobinet.com/shop



## COPPER DATA NETWORKS CONTENT

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FTTH



DATA CENTRE



FIBRE OPTIC TECHNOLOGY



DATA CABLE FIBRE OPTIC & COPPER





NETWORK CABINETS



TELECOMMUNICATION

## SYSTEM KS

COPPER DATA NETWORKS

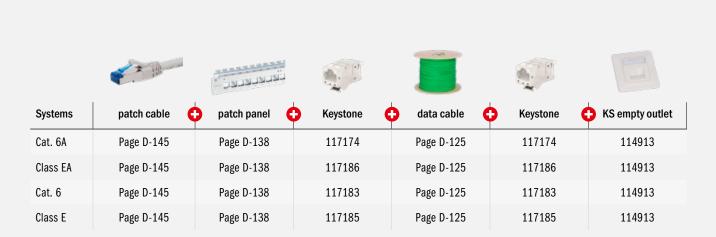
The KS system is a modular cabling system with mechanically and electrically ideally matched components and high system reserve.

CobiNet's state-of-the-art manufacturer in-house measurement technology, our decades of experience in component development and production guarantees our customers that all system elements have been developed, produced and selected with the utmost care for electrical performance, installation quality and accuracy of fit.

Besides, we continuously prove our consistently high level of quality with absolute transparency for our customers. In order to achieve this, numerous components of our KS system undergo certification procedures through the independent testing institute GHMT AG. Our cat. 7 installation cables and cat. 6A data jack KS ICS 500 are additionally monitored and certified as part of the GHMT PREMIUM VERIFICATION PROGRAM. To ensure that you can also safely connect and operate your IT devices, our system patch cables are equipped with the "Type Approval" of GHMT AG.

#### Features of the KS System:

- quality product: meets all current standards with significant reserves
- sustainability: high-quality data cables enable applications up to 25 Gbit Ethernet
- flexibility through modular design: combination of different jack models in one distribution panel due to uniform Keystone format
- time-saving installation: short assembly time due to tool-free wiring





## COPPER DATA NETWORKS SYSTEM KS

#### RJ45 Keystone jack with optional 90°-adapter for vertical cable layout

- variant diversity up to 500 MHz Cat. 6A and for 1 und 10 GB Ethernet
- tool-free wiring
- LSA insulation displacement connectors with 45° inclination for high contact reliability due to torsion and axial reset forces
- low installation depth and standardized construction Designable outlets, suitable for almost all common switch ranges
- reusable and optimized for time-saving assembly.
- Power over Ethernet (PoE / PoE+ / PoE++ / 4PPoE) as per IEEE 802.3af / IEEE 802.3at / IEEE 802.3bt (type 3 / type 4)
- flexible cable cores can be connected
- large number of cable cores AWG 24/1-22/1 for solid conductors or AWG 26/7-24/7 for flexible conductors
- independent additional quality control and certification through participation in the GHMT PVP programme (https://pvp.ghmt.de/index.php/cobinet) \_\_\_\_\_\_

- quick connector for grounding fast and safe contacting of grounding wire due to flat plug connection 2.3 mm
- outstanding transmission properties cable core sorter with all-metallic chamber shielding between the core pairs. Consequently, the implementation of high-quality data cables enables NEXT reserves up to 8 dB



## **COPPER CONNECTIVITY, SHIELDED**

## **RJ45-TL® - THE TOOLLESS CABLING SYSTEM**

#### RJ45 jack CobiNet RJ45-TL®

- Compliant with Cat. 6A component standard according to ISO/IEC 11801-1:2017-11 and 60603-7-51:2011-01 with high reserves
- Supports 10 Gbit Ethernet with high reserve capacity
- · Time-saving and simple installation similar to a power socket without special tools
- · Independent certification by GHMT type approval certificate
- Robust zinc die-cast enclosure
- · Ideally designed for tight installation environments such as wall outlets
- Installation depth when installed: 29.6 mm
- Wiring according to T568A and T568B
- · Easy to reconnect in case of installation errors
- Incl. central plate with integrated dust protection flap(s)
- Fully integrable (designable) in common switch programme series

Article	Packaging unit	Standard	Article-No.	Fig.
RJ45 jack RJ45-TL, 2 x RJ45, 500 MHz	12	ISO	124727	1
RJ45 jack RJ45-TL, 1 x RJ45, 500 MHz	12	ISO	124728	2

#### Cover frame 80x80 mm

- Suitable for all keystone sockets of CobiNet KS series and RJ45-TL jacks
- Dimensions (WxHxD): 80x80x7 mm
- · Material: polycarbonate
- Colour: similar to RAL 9010 (pure white)
- Packaging unit: 10 pieces

Article	Article-No.
Cover frame 80x80 mm, PU = 10 pieces	125031



# **MAKE IT EASY!** CobiNet RJ45-TL<sup>®</sup>-System

## **COPPER CONNECTIVITY, SHIELDED** RJ45-TL<sup>®</sup> - THE TOOLLESS CABLING SYSTEM

D-133



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## **COPPER CONNECTIVITY, SHIELDED**

## **RJ45-TL® - THE TOOLLESS CABLING SYSTEM**

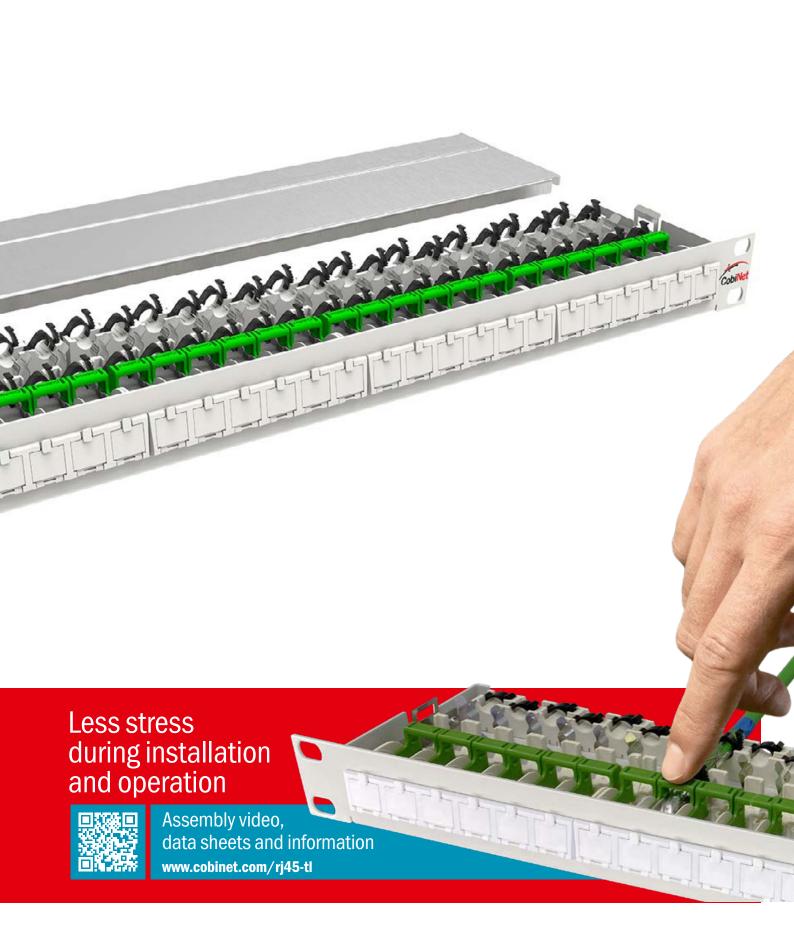
#### RJ45 patch panel CobiNet RJ45-TL®

- Compliant with Cat. 6A component standard to ISO/IEC 11801-1:2017-11 and 60603-7-51:2011-01 with high reserve
- · Independently certified by GHMT type approval certificate
- Ergonomic and tool-free wiring of the data cables from the front in installed condition in new installations or extensions
- · Easy wiring of data jacks due to integrated locking mechanism
- Time-saving strain relief without cable ties
- · Simple presorting of the wire pairs through integrated wire manager
- Wiring according to TIA 568A and TIA 568B
- Time-saving pre-sorting of data cables before installation thanks to integrated cable holders on the distribution panel
- Solid, torsion-resistant enclosure
- Simple port marking (e.g. PoE, VoIP ports) through colour-changeable dust protection flaps
- · Easy removal and installation of the cover thanks to integrated spring mechanism
- · Optimum dust protection through integrated dust protection shutters and EMC cover
- Can be used for solid conductors from AWG 22 to AWG 26
- Width: 19" (482.6 mm)
- Height: 1 RU
- · Material: galvanised sheet steel, powder-coated front panel
- Incl. 19" mounting kit, earthing cable and cable ties

Article	Article-No.
Patch panel CobiNet RJ45-TL $^{\circ}$ , Cat. 6Aiso, 500 MHz, 24xRJ45	126226

# **MAKE IT EASY!** CobiNet RJ45-TL<sup>®</sup>-System

## **COPPER CONNECTIVITY, SHIELDED** RJ45-TL<sup>®</sup> - THE TOOLLESS CABLING SYSTEM



## **COPPER CONNECTIVITY, SHIELDED** RJ45 JACKS KEYSTONE KS

#### RJ45 jack KS, 10 Gbit

- · Single shielded RJ45 jack in Keystone format
- Compact design allows the installation of 3 jacks side by side within the outlet's 50x50 mm central plate (designable)
- · Sturdy zinc die-cast enclosure
- High contact reliability due to LSA insulation displacement connectors with 45° inclination, gas-tight
- 360° shield connection at cable
- Time-saving installation due to pre-mounted cable clip
- · Quick and easy assembly without special tools
- · High flexibility due to many connection options: AWG 26/1 -

22/1 (solid conductor) or AWG 26/7 - 22/7 (flexible conductor)

- Can be integrated into all KS system Keystone installation components
- · Incl. dust protection cap white



Article	PU	Ethernet	Standard	Article-No.	Fig.
RJ45 jack KS ICS, 500 MHz, Cat. 6A as per ISO/IEC 11801-1:2017-1 GHMT PVP certification	2	10 Gbit	ISO	117175	1
RJ45 jack KS ICS, 500 MHz, Cat. 6A as per ISO/IEC 11801-1:2017-1 GHMT PVP certification	50	10 Gbit	ISO	118828	
RJ45 jack KS ICS 500 MHz, Cat. 6A as per ISO/IEC 11801-1:2017-1	2	10 Gbit	ISO	117174	
RJ45 jack KS ICS 500 MHz, Cat. 6A as per ISO/IEC 11801-1:2017-1	50	10 Gbit	IS0	118827	
RJ45 jack KS IPS 500 MHz, Class EA PL as per ISO/IEC 11801-1:2017-1	2	10 Gbit	ISO	117186	
RJ45 jack KS IPS 500 MHz, Class EA PL as per ISO/IEC 11801-1:2017-1	50	10 Gbit	ISO	118829	

\* Permanent Link

#### RJ45 jack KS, 1 Gbit

- · Single shielded RJ45 jack in Keystone format
- Compact design allows the installation of 3 jacks side by side within the outlet's 50x50 mm central plate (designable)
- · Sturdy zinc die-cast enclosure
- High contact reliability due to LSA insulation displacement connectors with 45° inclination, gas-tight
- 360° shield connection at cable
- Time-saving installation due to pre-mounted cable clip
- · Quick and easy assembly without special tools
- High flexibility due to many connection options: AWG 26/1 -

22/1 (solid conductor) or AWG 26/7 - 22/7 (flexible conductor)

- Can be integrated into all KS system Keystone installation components
- · Incl. dust protection cap white



Article	PU	Ethernet	Standard	Article-No.	Fig.
RJ45 jack KS ICS 250, 250 MHz, Cat. 6 as per ISO/IEC 11801-1:2017-1	2	1 Gbit	IS0	117183	2
RJ45 jack KS IPS 250, 250 MHz, Class E PL as per ISO/IEC 11801-1:2017-1	2	1 Gbit	ISO	117185	

\* Permanent Link

#### 90° adapter KS

- Ideal for confined installation environments, allows cable runs from below
- 1 set = 20 pieces

Article	Article-No.
90° adapter KS	115970



#### **Dust protection cap KS**

• 1 set = 25 pcs

Article	Article-No.
Colour: grey	117334
Colour: yellow	117335
Colour: green	117336
Colour: blue	117337
Colour: red	117338

## **RJ45 ADAPTER KS**

#### **RJ45 adapter KS**

- Compact, single shielded RJ45 adapter in Keystone format
- Can be integrated into all KS System Keystone installation components
- Durable, sturdy, fully shielded zinc die-cast enclosure
- Including dust protection cap white





Article	Ethernet	Stan- dard	Article-No.	Fig.
RJ45 adapter KS IPS 500 MHz, Class EA PL as per ISO/IEC 11801-1:2017-1	10 Gbit	IS0	122213	1
RJ45 adapter KS IPS 250 MHz, Class E PL as per ISO/IEC 11801-1:2017-1	1 Gbit	IS0	122212	
* Permanent Link				

## **COPPER CONNECTIVITY, SHIELDED FILED TERMINATED RJ45 CONNECTOR**

#### Field-terminated RJ45 connector

- RJ45 as per ISO/IEC 60603-7-51:2011-1
- · Particularly durable due to zinc die-cast enclosure incl. dust protection cap
- · Easy and time-saving installation due to integrated bayonet lock for locking the connector
- Flexible connection options: AWG 26/1 AWG 22/1 (massive
- conductor) or AWG 26/7 AWG 22/7 (flexible conductor)
- · Length incl. lock: 52 mm
- Material: Metal die casting/plastic



#### Article Ethernet Article-No. Standard RJ45 plug FK ILS 500, 500 MHz, 10 Gbit IS0 121427

Cat. 6A according to ISO/IEC 11801-1:2017-11, field-terminated



#### **Distribution panel KS**

- Unequipped distribution panel to insert KS System RJ45 jacks and adapters
- Width: 19" (482.6 mm)
- Height: 1 RU



- · Material: steel plate
- Incl. 19" mounting kit, grounding cable and cable clip



Article	Colour front panel	Article-No.	Fig.
Empty enclosure, 24 ports	RAL 7035 (light grey)	115947	1
Empty enclosure, 24 ports	RAL 9005 (deep black)	116292	2
Empty enclosure, 24 ports, RJ45 contacts of models at top	RAL 7035 (light grey)	115948	
Empty enclosure, 24 ports, RJ45 contacts of models at top	RAL 9005 (deep black)	116101	

#### **Distribution panel KS**

- · Unequipped distribution panel to insert KS system RJ45 jacks and adapters
- · For environments with high port density
- · Convenient operation of patch cables despite low height

Article	Colour front panel	Article-No.
Empty enclosure HD, 48 ports	RAL 7035 (light grey)	116088

- Width: 19" (482.6 mm)
- Height: 1.5 RU
- · Material: steel plate
- Incl. 19" mounting kit, grounding cable and cable clip



#### Labeling strips for distribution panels KS

- Labeling strips for KS distribution panel for 24 or 48 Keystone jacks
- Consisting of 3 x clear cover and 3 x paper shield for direct mounting without gluing or screwing

Article	Article-No.
Labeling strips	116533

Patch cable management panel with brackets

- Dimensions (WxH): 14x8 mm
- Material: plastic

## **DISTRIBUTION CABLE MANAGEMENT PANEL**

• Width: 19" (482.6 mm)					
• Bracket opening: approx. 1	.0 mm				
Material: sheet steel, powd	ler-coated				5
• Colour: RAL 7035 (light gre	ey)				
• All models also available in	n RAL 9005 (deej	o black) on request	P		
<ul> <li>Incl. mounting material</li> </ul>			Þ	-	
				-	
Article	Height	Article-No.	Fig.		
Patch cable management	1 RU	123415	1		
panel with brackets					
Patch cable management	1 RU	123416			
panel with brackets					
Patch cable management panel with brackets	2 RU	123417			

#### Patch cable management panel KS with cover

- Patch cable routing behind the cover
- Additional opening at the rear for inserting and removing extra patch cables
- Dimensions under cover (HxD): 40x65 mm
- Width: 19" (482.6 mm)
- Height: 1 RU
- Material: steel plate
- Colour: RAL 7035 (light grey)
- Incl. mounting material

#### Article

Article-No.

Patch cable guide panel KS with cover





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## **COPPER CONNECTIVITY, SHIELDED** KEYSTONE DATA OUTLETS KS

#### **Empty outlet for Keystone jacks CobiNet KS series**

- Wall duct and flush mounting
- For inserting shielded KS System RJ45 jacks
- Angled outlet 45°
- Central plate 50x50 mm with integrated dust protection caps, cover plate 80x80 mm
- Designable: central plate and cover plate can both be replaced with almost all common switch ranges available on the market
- · Viewing window with labeling inserts
- Connection option for grounding conductors with cable lug or M4 screw
- Colour: similar to RAL 9010 (pure white)

Article	Article-No.	Fig.
Keystone outlets KS (1-fold)	114914	1
Keystone outlets KS (2-fold)	114913	2
Keystone outlets KS (3-fold)	114915	



#### **Designable outlet for Keystone jacks CobiNet KS series**

- · Unequipped module inserts for wall ducts and flush mounting
- To insert shielded KS System RJ45 jacks
- Angled outlet 45°
- Without central plate and cover frame
- Designable: can be combined with almost all common switch ranges available on the market
- Connection option for grounding conductors with cable lug or M4 screw
- 1 set = 10 pcs

Article	Article-No.	Fig.
Designable Keystone outlets KS, 2-fold	118830	3
Designable Keystone outlets KS, 3-fold	122263	



2

## **COPPER CONNECTIVITY, SHIELDED** KEYSTONE DATA OUTLETS KS

#### Surface mounting frame 80x80 mm

- Surface mounting frame to insert a keystone mounting frame KS
- DIN rail mounting possible
- Depth: 40 mm

Article

• Material: polycarbonate

Surface mounting frame

· Colour: similar to RAL 9010 (pure white)



Cover frame 80x80 mm

- Suitable for all keystone sockets of CobiNet KS series and RJ45-TL jacks
- Dimensions (WxHxD): 80x80x7 mm
- Material: polycarbonate
- Colour: similar to RAL 9010 (pure white)
- Packaging unit: 10 pieces

Article



Article-No.

Cover frame 80x80 mm, PU = 10 pieces

## DATA OUTLET KS SURFACE-MOUNTED (IP 44, IP 54)

#### Data connection enclosure surface-mounted KS (IP 44), unequipped

Article-No.

104638

- For 2 KS System RJ45 jack
- · Position of the jacks: vertically downwards
- Weather and UV resistant
- Protection class: IP 44
- Dimensions (WxHxD): 75x75x58 mm
- Material: thermoplastic
- Colour: grey

Article

Data connection enclosure surface-mounted KS, 2-fold 116431



#### Data connection enclosure surface-mounted KS (IP 54), unequipped

Article-No.

Article-No.

- For 2 KS System RJ45 jack
- Surface mounting
- · Incl. lock and 1x key
- Break-proof thermoplastic
- Weather and UV resistant
- Protection class : IP 54
- Dimensions (WxHxD): 103x185x93 mm
- Material: shatterproof thermoplastic
- Colour: similar to RAL 7035 (light grey)

#### Article

Data connection enclosure surface-mounted KS, 2-fold 119196

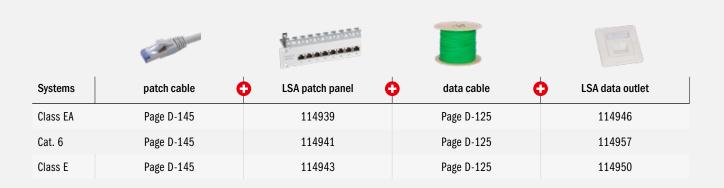


## **COPPER CONNECTIVITY, SHIELDED** SYSTEM LSA, SHIELDED

With the CobiNet System LSA and with the help of the LSA insertion tool, the data cable is directly wired onto the component's circuit board in LSA contacts. Then, the complete component is fastened at the corresponding mounting location.

#### Features:

- cost-optimized due to an excellent price-performance ratio and short installation times
- easy installation due to simple, classic wiring proven over millions of times
- high contact reliability and safe operation of the LSA insulation displacement connectors due to 45° inclination and resulting additional torsion and axial reset forces
- optimised for challenging installation environments due to a low installation depth of only 36 mm (data outlet) and 125 mm (patch panel)





COPPER CONNECTIVITY, SHIELDED RJ45 PATCH PANEL LS

#### **RJ45 distribution panel LSA**

- · Solid, rigid enclosure
- 24 individually shielded RJ45 jacks
- Color-coded printed circuit board connection modules as per T568A and T568B
- Insulation-displacement connector technique, LSA contacts with  $45^{\,\mathrm{o}}$  incline
- 360° shielding with shielded cable clip
- Cover hood snaps into place via springs, no tools required (1 RU version)

- Fast and easy wiring due to LSA insertion tool
- Suitable for solid conductors from AWG 22 to AWG 26 and flexible conductor from AWG 24/7 to AWG 22/7
- Grounding with grounding screw M 6 as per DIN VDE 0100
- Width: 19" (482.6 mm)
- Height: 1 RU or 0.5 RU
- · Material: steel plate
- Incl. 19" mounting kit, grounding cable and cable clip



Article	Ethernet	Height units	Colour front panel	Article-No.	Fig.
RJ45 distribution panel LSA IPS 500 500 MHz, class EA PL* according to ISO/IEC 11801-1:2017-1	10 Gbit	1	RAL 7035 (light grey)	114939	1
RJ45 distribution panel LSA IPS 500 500 MHz, class EA PL* according to ISO/IEC 11801-1:2017-1	10 Gbit	1	RAL 9005 (deep black)	114940	
RJ45 distribution panel LSA IPS 500 HD 500 MHz, class EA PL* according to ISO/IEC 11801-1:2017-1	10 Gbit	1/2	RAL 7035 (light grey)	114938	
RJ45 distribution panel LSA ICS 250 250 MHz, cat. 6 according to ISO/IEC 11801-1:2017-1	1 Gbit	1	RAL 7035 (light grey)	114941	
RJ45 distribution panel LSA ICS 250 250 MHz, cat. 6 according to ISO/IEC 11801-1:2017-1	1 Gbit	1	RAL 9005 (deep black)	114942	
RJ45 distribution panel LSA ICS 250 HD 250 MHz, cat. 6 according to ISO/IEC 11801-1:2017-1	1 Gbit	1/2	RAL 7035 (light grey)	114965	
RJ45 distribution panel LSA IPS 250 250 MHz, class E PL* according to ISO/IEC 11801-1:2017-1	1 Gbit	1	RAL 7035 (light grey)	114943	
RJ45 distribution panel LSA IPS 250 250 MHz, class E PL* according to ISO/IEC 11801-1:2017-1	1 Gbit	1	RAL 9005 (deep black)	114944	
RJ45 distribution panel LSA ICS 100 100 MHz, cat. 5e according to ISO/IEC 11801-1:2017-1	1 Gbit	1	RAL 7035 (light grey)	115112	
RJ45 distribution panel LSA ICS 100 100 MHz, cat. 5e according to ISO/IEC 11801-1:2017-1	1 Gbit	1	RAL 9005 (deep black)	115113	

#### D-144

## **COPPER CONNECTIVITY, SHIELDED RJ45 OUTLETS LSA**

#### **RJ45 outlet LSA**

- For wall duct and flush mounting
- 2x RJ45 connectors
- Individually shielded RJ45 jacks
- Angled outlet 45°
- Central plate 50x50 mm with integrated dust protection caps, cover plate 80x80 mm
- · Suitable for many common switch ranges
- Viewing window with labelling inserts
- Suitable for solid conductors from AWG 22 to AWG 26 and flexible conductor from AWG 24/7 to AWG 22/7
- Colour: similar to RAL 9010 (pure white)





Article	Ethernet	Cable feed	Article-No.	Fig.
RJ45 outlets LSA IPS 500	10 Gbit	lateral	114946	1
500 MHz, class EA permanent PL* according to ISO/IEC 11801-1:2017-1	10 GDIL	top/bottom	114947	
RJ45 outlet LSA ICS 250         1           250 MHz, Cat. 6 according to ISO/IEC 11801-1:2017-1         1	1 Gbit	lateral	114957	
	1 GUIL	top/bottom	114955	
RJ45 outlet LSA ICS 250	1 Gbit	lateral	114950	
250 MHz, Cat. 6 according to ISO/IEC 11801-1:2017-1	1 dbit	top/bottom	114952	
RJ45 outlet LSA IPS 250 250 MHz, class E PL* according to ISO/IEC 11801-1:2017-1	1 Gbit	lateral	115115	

\* Permanent Link

#### Surface mounting frame 80x80 mm

- Surface mounting frame to insert a keystone mounting frame KS
- DIN rail mounting possible
- Depth: 40 mm
- Material: polycarbonate
- Colour: similar to RAL 9010 (pure white)

Article	Article-No.
Surface mounting frame	104638



# COPPER CONNECTIVITY, SHIELDED CABLE CONNECTOR LSA

### **Cable connectors LSA**

- Solid connector for data cables
- Fast installation with LSA insertion tool
- High transmission reserves due to chamber shielding and boardless design
- Fully shielded enclosure in designs Cat. 6 and Cat. 7

Article	Article-No.	Fig.
Cable connector LSA, 600 MHz, Cat. 7	112711	2
Cable connector LSA, 250 MHz, Cat. 6	112712	

- 360° shield connection separate from strain relief
- Increased contact security due to LSA contacts with 45° inclination
- Compact dimensions (WxHxD): 48x16x39 mm
- Material: ABS with metal coating



## **RJ45 SYSTEM PATCH CABLE**

### Patch cable Cat. 6A

<ul> <li>500 MHz, category 6A as per ISO/IEC 11801-1:2017-11</li> <li>GHMT Type Approval</li> <li>Particularly narrow connector without grommet incl. latch lever protection</li> <li>Structure: S/FTP</li> <li>Sheath: LSZH</li> <li>Assignment of RJ45 connectors 1:1 as per TIA568B</li> <li>Suitable for 10 Gbit</li> </ul>							THE APPROVAL THOUGHT THE THOUGHT
Colour	0.5 m	1.0 m	2.0 m	3.0 m	5.0 m	7.5 m	10.0 m
grey	119317	123448	123450	123451	123452	123453	123454
red	123504	123505	123506	123507	123508	123531	123510

### Patch cable Cat. 6

- 250 MHz, category 6 as per ISO/IEC 11801-1:2017-11
- · Particularly narrow connector without grommet incl. latch lever protection
- Structure: S/FTP
- Sheath: LSZH
- Assignment of RJ45 connectors 1:1 as per TIA568B
- Suitable for 1 Gbit

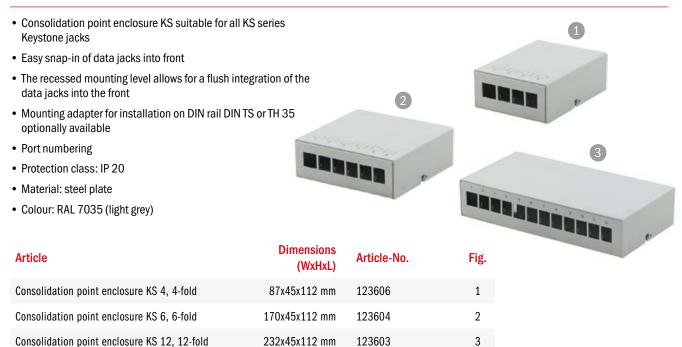
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Colour	0.5 m	1.0 m	2.0 m	3.0 m	5.0 m	7.5 m	10.0 m
grey	123497	123498	123499	123500	123501	123502	123529
red	123511	123512	123513	123514	123515	123530	123517

## **COPPER CONNECTIVITY, SHIELDED**

## **CONSOLIDATION POINTS FLOORBOX ADAPTERS KS**

### **Consolidation point enclosure KS**



### **DIN rail mounting adapter**

- With M5 thread (delivery without M 5 screw)
- For DIN rail TS35 or TH35 as per DIN EN 60715
- Material: steel plate

Article	Article-No.
DIN rail adapter	107422

### Support frame KS for floor distribution systems

- · Empty carrier to insert KS System RJ45 jacks
- Is used in place of the GB2/3 floor box service outlet from OBO Bettermann (Ackermann)
- Grounding bolt at bottom
- Material: steel plate, powder coated
- Colour: RAL 9005 (deep black)



Article	Section	Article-No.	Fig.
Support frame, 6-fold	GB2	115100	
Support frame, 9-fold	GB3	115101	4



### **Cable outlet for support frame KS**

- Cable outlet for installation at the cable outlet's support frame
- · Mounting option for 9 cables with cable clip
- Height: 60 mm
- Material: steel plate
- Colour: RAL 9005 (deep black)



Article Cable fixation for supp Article-No.

Cable fixation for support frame KS

115099

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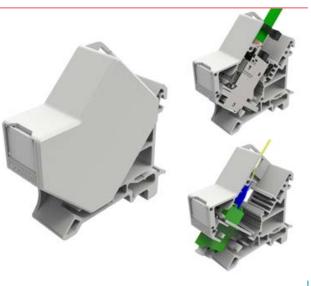
D-146

## D-147

### DIN rail module enclosure KS, unequipped

- Module enclosure for mounting RJ45 jack for Keystone format or fiber optic adapter LC-DX, SC-SX with flange on DIN rails TH 35 or TS 35 as per DIN 60715.
- · For shielded and unshielded RJ45 jacks of KS systems
- Labeling field on the front
- Incl. adapter for mounting fibre optic adapters
- Incl. lateral cover plate
- Dimensions (WxHxL): 18x68x67 mm
- Material: polyamide, fibreglass reinforced
- Colour: similar to RAL 7035 (light grey)

Article	Article-No.
DIN rail module enclosure KS, unequipped	122497



Application example

### DIN rail module rack KS, unequipped

- To insert KS system RJ45 jacks on DIN rail TS 35 or TH 35 as per DIN EN 60715
- Material: steel plate
- Incl. DIN rail adapter (107422)

Article	Article-No.	Fig.
DIN rail module rack KS 1-fold Width: 23 mm	115106	1
DIN rail module rack KS 2-fold Width: 42 mm	115107	2



### **DIN rail module rack KS flexible, unequipped**

- DIN rail mounting adapter for installation on DIN rail DIN TS 35 or TH 35 available optionally (3030122/M)
- · Can be adjusted to individual module number with wire cutter



### Article

Article-No.

Module mounting adapter KS, flexible

116106

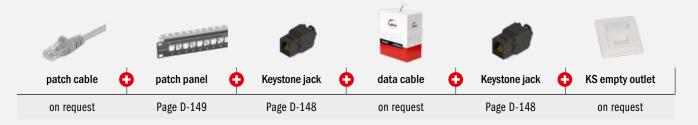
## **COPPER CONNECTIVITY, UNSHIELDED** SYSTEM KS, UNSHIELDED

### The CobiNet System KS is a modular component system with mechanically and electrically optimised components.

Here, a snap fit latches both the data cable and CobiNet Keystone jack into various CobiNet system components which are ideally adjusted with one another.

## Features of the KS System:

- quality product: meets all current standards with significant reserves
- sustainability: high-quality data cables enable applications up to 10 Gbit Ethernet
- flexibility through modular design: combination of different jack models in one distribution panel due to uniform Keystone format
- · time-saving installation: short assembly time due to tool-free wiring



## **RJ45 JACKS KEYSTONE KS (UNSHIELDED)**

### **RJ45 jacks Keystone KS (unshielded)**

- · Compact, individual, unshielded RJ45 jack in Keystone format
- Compact design, length of jack: 37,9 mm
- Quick and easy assembly without special tools
- Connectivity options: AWG 26/1 23/1 (massive conductor) or AWG 26/7 - 23/7 (flexible conductor)
- · Material: polycarbonate
- · Colour: similar to RAL 9005 (deep black)



Article	Ethernet	Standard	Article-No.	Fig.
RJ45 jack CobiNet KS IPU 500, 500 MHz, Klasse EA PL*, UTP PL*	10 Gbit	Cat. 6A according EIA/TIA-568.2-D:2018-09	123187	1
RJ45 jack CobiNet KS IPU 250, 250 MHz, Cat. 6, UTP	1 Gbit	Cat. 6 according EIA/TIA-568.2-D:2018-09	123029	

\* Permanent Link

# **COPPER CONNECTIVITY, UNSHIELDED** DISTRIBUTION PANEL KS (UNSHIELDED)

### **Distribution panel KS, unshielded**

- Unequipped distribution panel for the insertion of 24 KS System unshielded RJ45 jacks
- RJ-45 jack contacts at bottom
- Height: 1 RU

- Width: 19" (482.6 mm)
- Material: steel plate
- Incl. 19" mounting kit, grounding cable and cable clip



Article	Colour front panel	Article-No.	Fig.
Empty enclosure, 24 port	RAL 7035 (light grey)	120231	1
Empty enclosure, 24 port	RAL 9005 (deep black)	120232	

## **COPPER CONNECTIVITY, UNSHIELDED** PATCH CABLE MANAGEMENT PANEL KS

### Patch cable management panel with brackets

- Width: 19" (482.6 mm)
- Bracket opening: approx. 10 mm
- · Material: sheet steel, powder-coated
- Colour: RAL 7035 (light grey)
- All models also available in RAL 9005 (deep black) on request
- Incl. mounting material



Article	Height	Bracket size (HxD)	Article-No.	Fig.
Patch cable management panel with brackets	1 RU	40x65 mm	123415	1
Patch cable management panel with brackets	1 RU	40x100 mm	123416	
Patch cable management panel with brackets	2 RU	80x100 mm	123417	

D-150

## **CONNECTION HOUSING SURFACE-MOUNTED UTP**

### Data connection enclosure surface-mounted KS (IP 44), unequipped

- For 2 KS System RJ45 jack
- · Position of the jacks: vertically downwards
- Weather and UV resistant
- Protection class: IP 44
- Dimensions (WxHxD): 75x75x58 mm
- · Material: thermoplastic
- Colour: grey

Article



Data connection enclosure surface-mounted KS, 2-fold 116431

### Data connection enclosure surface-mounted KS (IP 54), unequipped

- For 2 KS System RJ45 jack
- Surface mounting
- Incl. lock and 1x key
- Break-proof thermoplastic
- Weather and UV resistant
- Protection class : IP 54
- Dimensions (WxHxD): 103x185x93 mm
- Material: shatterproof thermoplastic
- Colour: similar to RAL 7035 (light grey)

Article

Article-No.

Article-No.

Data connection enclosure surface-mounted KS, 2-fold 119196



# **COPPER CONNECTIVITY, UNSHIELDED** SYSTEM LSA, UNSHIELDED

With the CobiNet System LSA and with the help of the LSA insertion tool, the data cable is directly wired onto the component's circuit board in LSA contacts. Then, the complete component is fastened at the corresponding mounting location.

### Features:

- cost-optimized due to an excellent price-performance ratio and short installation times
- easy installation due to simple, classic wiring proven over millions of times.
- high contact reliability and safe operation of the LSA insulation displacement connectors due to 45° inclination and resulting additional torsion and axial reset forces.
- optimised for challenging installation environments due to a low installation depth of only 36 mm (data outlet) and 125 mm (patch panel)

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LSA insertion tool see page D-155

	-	J					
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patch cable	0	patch panel	0	data cable	0	data outlet	
on request		Page D-152	· · · ·	on request		Page D-153	

## **RJ45 DISTRIBUTION PANELS LSA**

### RJ45 distribution panel LSA, unshielded

- · Easy and fast installation with LSA insertion tool
- Suitable for solid conductors from AWG 26 to AWG 22 and flexible conductor from AWG 24/7 to AWG 22/7
- Grounding with grounding screw M 6 according to DIN VDE 0100
- Width: 19" (482.6 mm)
- Height: 1 RU
- Incl. mounting kit, grounding cable and cable clip



Article	Ethernet	Colour front panel	Article-No.
RJ45 distribution panel LSA IPU 250 250 MHz, class E PL* unshielded	1 Gbit	RAL 9005 (deep black)	115666

\* Permanent Link

### **RJ45 Walloutlets LSA, unshielded**

- For wall duct and flush mounting
- 2x RJ45 connectors
- Separate RJ45 jacks
- Angled outlet 45°
- Central plate 50x50 mm with integrated dust protection caps, cover plate 80x80 mm
- · Suitable for many common switch ranges
- Viewing window with labeling inserts
- Suitable for solid conductors from AWG 26 to AWG 22 and flexible conductor from AWG 24/7 to AWG 22/7
- Colour: similar to RAL 9010 (pure white)



Article	Ethernet	Cable feed	Article-No.	Fig.
RJ45 outlets LSA IPU 250 MHz, class E PL* unshielded	1 Gbit	lateral	115667	1

\* Permanent Link

**CABLE CONNECTOR LSA (UNSHIELDED )** 

### Cable connector LSA cat. 5e, unshielded

- Solid connector for data cables, unshielded
- Suitable for solid conductors from AWG 26/1 to AWG 22/1 and flexible conductor from AWG 24/7 to AWG 22/7
- Dimensions (WxHxL): 48x16x39 mm

Article	Article-No.
Cable connector LSA 100 MHz, cat. 5e	112713

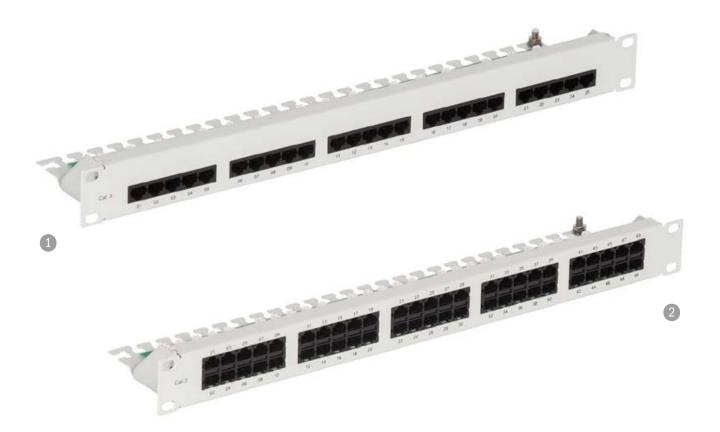


## **COPPER CONNECTIVITY** TELEPHONY CAT. 3

## RJ45 telephone patch panel without wiring duct

- Cat. 3 as per ISO/IEC 11801-1:2017-11
- RJ45 jack wiring 3-6, 4-5
- Cable connection via rear LSA modules
- Grounding with grounding screw M 6 according to DIN VDE 0100
- Suitable for solid conductors from AWG 26 to AWG 22 and flexible conductor from AWG 24/7 to AWG 22/7
- Width: 19" (482.6 mm)
- Height: 1 RU
- Material: steel plate
- Colour: RAL 7035 (light grey)
- Incl. 19" mounting kit, grounding cable and cable clip

Item	Colour front panel	Article-No.	Fig.
RJ45 telephone patch panel 25x	RAL 7035 (light grey)	120553	1
RJ45 telephone patch panel 25x	RAL 9005 (deep black)	121589	
RJ45 telephone patch panel 50x	RAL 7035 (light grey)	120554	2
RJ45 telephone patch panel 50x	RAL 9005 (deep black)	121588	



### **Crimping tool**

For safely crimping the LSA contacting of Keystone data jacks

Article Crimping tool

115961

Article-No.



### LSA insertion tool with sensor

- For solderless, screwless and stripping-free insertion and simultaneous cutting to length of cable cores on LSA modules
- With fold-out draw hook and release blade
- For conductor diameters from 0.35 mm up to 0.9 mm and core diameters from 0.7 mm up to 2.6 mm
- With sensor for scanning the core end position
- Scissors can be switched off for looping off wire cores along several contacts
- · High life-expectancy of scissors: up to 200,000 cuts



## **COPPER CONNECTIVITY**

## **ACCESSORIES AND TOOLS**

### **Stripping tool CS1**

- Safe and user-friendly stripping of all common data network cables with a diameter of 4.5 10 mm
- The cutting depth does not have to be adjusted manually
- Especially safe, non-slip handling through ergonomic handle shape
- Long design for better access during stripping, even in deeper cavity wall boxes and in hard-to-reach places
- · No clogging of the galvanised blades due to sheath residues
- Integrated length stop for setting the required set-down distance of 3 10 cm
- · Spare crosscut fence mounted in the tool
- · Locking mechanism for safe storage of the tool
- Cutting blades "Made in Germany / Solingen"



Article	Article-No.
Stripping tool CS1	124725

### **Stripping tool CS2**

- Safe and convenient stripping of all common data network cables with a diameter of 4.8 10 mm
- Two cutting edges (A: for depositing the cable sheath, B: for depositing the pair foils)
- Especially safe, non-slip handling due to ergonomic handle shape
- · No clogging of the galvanised blades due to sheath residues
- · Locking mechanism for safe storage of the tool
- Cutting blades "Made in Germany / Solingen"



Article

Stripping tool CS2

124726

Article-No.

### KS dummy plug

• KS dummy plug to cover unused Keystone breakouts in Keystone inserts and 19" (482.6 mm) Keystone distribution panels

Article	Article-No.	Fig.
KS dummy plug, similar to RAL 7035 (light grey)	115173	1
KS dummy plug, similar to RAL 9005 (deep black)	116537	
KS dummy plug, similar to RAL 9010 (pure white)	115172	



### RJ45 dummy plug

· Protects unused RJ45 jacks from dust, dirt and damage

Article	Article-No.	Fig.
RJ45 dummy plug, similar to RAL 9005 (deep black)	104296	2
RJ45 dummy plug, similar to RAL 7035 (light grey)	102898	



### Labeling strip holder, adhesive

- Length: 430 mm
- Width: 12 mm
- Adhesive
- Incl. labeling insert
- To label ports at patch panels, supporting frames etc.

Article	
Labeling strip holder, universal, adhesive	

Article-No.

113617



### Hook-and-loop cable clip (velcro)

- Dimensions (LxH): 205x12 mm
- Colour: black

Article	Article-No.
Hook-and-loop cable clip (velcro)	116624



### **Conductive copper tape**

- Adhesive copper tape
- Length: 16.5 m
- Width: 9 mm

Article	Article-No.
Adhesive conductive copper band	106507



### 19" Mounting kit

- For mounting 19" installations
- Consisting of 4x cage nut M 6, 4x plastic washer M 6 and 4x round head screw M 6

Article	Article-No.	Fig.
Mounting kit	118673	1
Mounting kit 50 pcs.	119080	



### 19" kit for grounding and mounting

- For simultaneously mounting and grounding 19" installations with varnished contact surfaces
- Consisting of 4x cage nut M 6 with grounding claws, 4x plastic washer M 6 and 4x round head screw M 6
- Required for 19" installations with varnished contact surfaces for 19" rack rail

Article	Article-No.	Fig.
Kit for grounding and mounting	119071	1
Kit for grounding and mounting 50 pcs.	119079	





### Universal test cord 7052, 2-pole

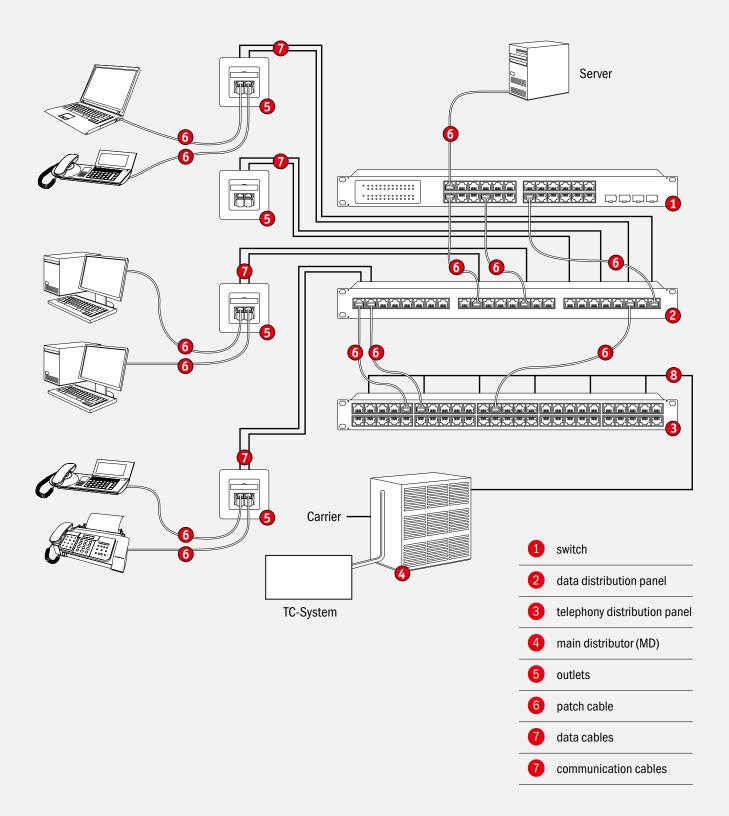
- Equipped with connector for the tapping of almost all LSA contacts and 2 jacks (4 mm) for bunch connectors
- 2-pole tapping of LSA contact due to 2 spring contacts in connector
- · For the parallel connection on to a twisted pair

Article	Article-No.
0.2 m	118722

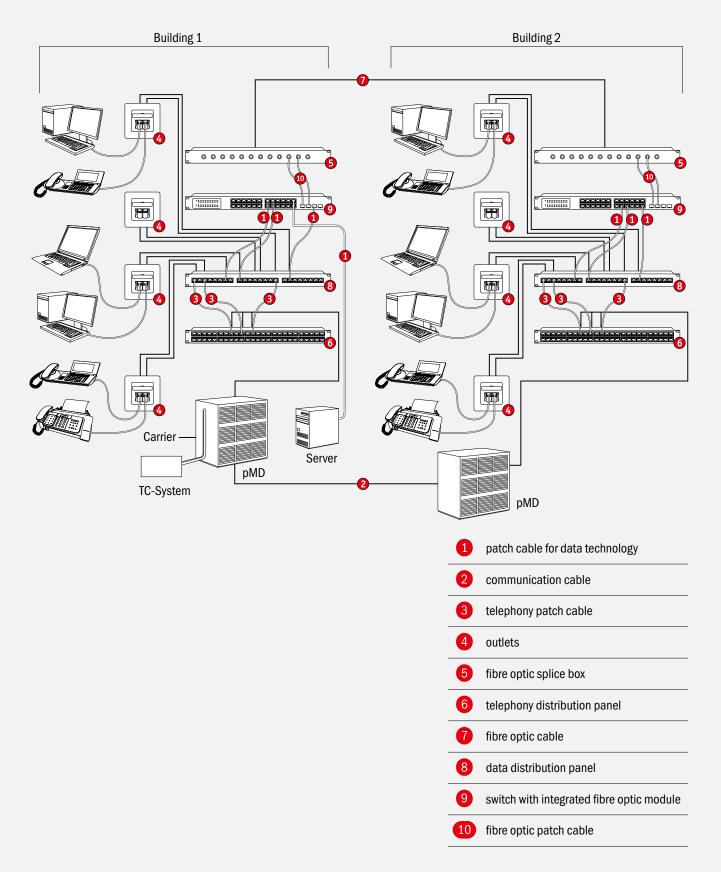


## DATA NETWORK TECHNOLOGY TECHNICAL INFORMATION INDEX

# Structured cabling for data and telephone network with copper



# Structured cabling design between buildings



D-161

## **Difference between "categories" and "classes"**

## **Categories:**

• performance levels of individual components

- individual components are: data cables, distribution panels, outlets, patch cables...

## **Classes:**

- performance levels of cabling runs
  - complete cabling run consisting of individual components

Caution: The class is always determined by its component with the worst transmission properties

Frequency/bandwidth	ISO/IEC 11801-1 (component)	ISO/IEC 11801-1 (Link – path)	transmission rate
100 MHz	Cat. 5	Class D	0,1 Gbit/s
250 MHz	Cat. 6	Class E	1 Gbit/s
500 MHz	Cat. 6A	Class EA	10 Gbit/s
600 MHz	Cat. 7	Class F	10 Gbit/s
1000 MHz	Cat. 7A	Class FA	10 Gbit/s
1250 MHz	ISO/IEC TR 11801-9	901 (draft status)	25 Gbit/s
2000 MHz	Cat. 8.1 Cat. 8.2	Class I Class II	40 Gbit/s

## Category $6_{A}$ does not correspond with category 6A

With the introduction of 10 Gbit Ethernet with twisted-pair copper cable, new classes of cabling standards emerged. The North American organisation EIA/TIA published the standard Cat. 6A in February 2008. The European organisation ISO/IEC followed shortly thereafter with the standard definition for the transmission link (channel class EA). Later, this was followed by the permanent-link and component definition.

Although both standards were published at almost the same time, their technical specifications differ remarkably. The requirements of the EIA/TIA standard for near-end crosstalk (NEXT) of Cat. 6A components are significantly lower than for the ISO/ IEC standards (Cat. 6A).

Data networks in America and Asia are traditionally installed using unshielded technology (UTP), while class EA networks in Europe are almost exclusively constructed using shielded technology. Due to the lack of shielding, unshielded data network technology

is much more susceptible to near-end crosstalk (noise). Therefore, the specifications for the Cat. 6A standard as per EIA/TIA are not as strict as for the Cat. 6A (class EA) of ISO/IEC.

For the final measurement it is therefore recommended that testing is performed in accordance with ISO/IEC 11801. The stricter specifications ensure greater operational reliability of the cabling. Thus, the requirement for NEXT values between ISO/IEC and EIA/TIA is 3 dB when measuring the Cat. 6A permanent-left or component. This represents a considerable qualitative difference between the two standardisations

requirements for	Definition	ISO/IEC 11801-1:2017-11	EIA/TIA-568.2-D:2018-09
10 Gbit transmission	channel	27,9 dB	26,1 dB
to the near-end crosstalk NEXT	perrmanent-link	29,7 dB	26,7 dB
	components Cat. 6A	37,0 dB	34,0 dB

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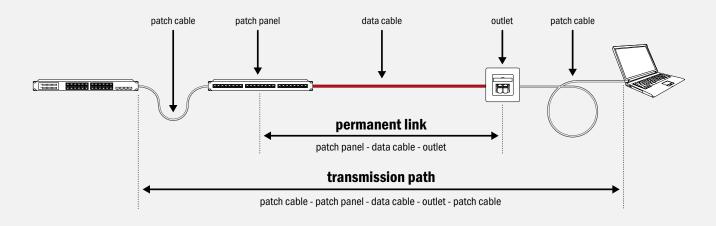
## DATA NETWORK TECHNOLOGY TECHNICAL INFORMATION INDEX

## "Channel" and "Permanent Link"

ISO/IEC 18801-1 defines different performance classes for passive data networks. The cabling route is divided into permanent link and channel. The permanent link contains the permanently installed or permanently connected components (e.g. distribution panel, data cable, outlets...).

The channel refers to the entire connection between two devices, for example a PC and a switch in the network cabinet, including all jumper and connection cables (patch cables).

After the installation of structured cabling, almost exclusively the permanent link will be measured due to the following reason: If the channel measurement records were required during acceptance, the measured connection cables would have to remain plugged into all boxes, and distribution panels and acceptance measurement of the channel would not be valid if other patch cables were subsequently used.



## **Contact wiring and colour coding for RJ45 connectors**

EIA/TIA-568A and EIA/TIA-568B are standards for contacting eight-pole RJ45 connectors and jacks. They were established by three organisations, i.e. Electronic Industries Alliance (EIA), Telecommunications Industry Association (TIA) and International Telecommunications Union (ITU). Both standards are used in Ethernet networks (LAN). The only difference between TIA-568A and TIA-568B is the swapping of wire pairs 2 and 3 (orange and green). Both standards wire the contacts "straight through". This means that contact 1 on one side is connected to contact 1 on the other side. This is maintained for all 8 contacts.

It is recommended to determine the standard according to which the RJ45 components are to be connected before starting the installation. Avoid changing the contacting procedure for subsequent installations. Therefore, the electrician carrying out the work should find out detailed information from the constructor which installation standards should be applied.



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D-170 GENERAL TERMS AND CONDITIONS

### Valid as at February 2016 - CobiNet Fernmelde- und Datennetzkomponenten GmbH (hereinafter referred to as CobiNet)

### § 1 Scope, conclusion of contract

- These General Terms and Conditions apply to all quotations, deliveries and services provided to companies under the terms of Section 14 of the German Civil Code, or to legal
  entities under public law or special funds under public law (customers). The same applies to all future business relationships. Deviating terms and conditions of our contracting
  partners are not effectively agreed.
- 2. Any deviating agreements must be made in writing. This also applies to an agreement to waive the requirement for the written form.
- CobiNet reserves the copyrights to the cost estimates, quotations, drawings and other documents it has produced where these contain calculations or graphic representations. If
  no contract is concluded, these documents must be returned to us on request.
- Quotations from CobiNet are subject to change and non-binding. Quotations submitted to us require our written confirmation. No contract shall be concluded without this confirmation.
- 5. For the purpose of making a decision regarding the establishment, implementation or termination of the contractual relationship, we ascertain or use probability values, which are calculated based on address data among other information.

### § 2 Delivery

- 1. Products are dispatched at the risk and cost of the recipient from the moment that they are prepared for dispatch.
- 2. Partial deliveries are permissible.
- 3. Confirmed delivery deadlines shall be extended accordingly if the customer fails to cooperate as necessary.
- 4. The customer is not entitled to refuse to accept goods or services as a result of immaterial defects. The customer is obliged to check the goods promptly after receipt and to report any defects immediately. Customers who exceed the reporting deadline of two weeks following receipt of goods shall lose their right to report defects, unless said defects are concealed.
- 5. Defective delivery items must be returned to us at the risk and cost of the customer. If the defect report proves justified, the customer shall be reimbursed the standard costs for the return.

### § 3 Payment

- 1. Prices are inclusive of packaging but exclusive of shipping, setup and assembly costs. Statutory VAT is calculated separately at the rate applicable at the time of delivery.
- 2. The invoice amount becomes due 30 days after the invoice date. If payment is made within 14 days, the customer is entitled to deduct a discount of 2%.
- 3. The customer is entitled to off-setting rights only in the event of claims that are determined as legally valid, undisputed or acknowledged, and to rights of retention only if its counterclaim is based on the same contractual relationship.
- 4. For order values below EUR 150.00, we charge a EUR 15.00 minimum quantity surcharge.
- 5. We charge a EUR 15.00 processing fee for every warning. Default interest of 12% per year is due for the duration of the delay.

### § 4 Reservation of titlet

- 1. All delivery items remain our property until all claims made by us against the customer and arising from the transaction have been settled in full.
- 2. For the duration of the reservation of title, the customer must not pledge the goods or transfer them as security. The customer must ensure that the goods are not captured by blanket assignment or by assignment as security by its warehouse.
- 3. The customer is permitted to resell the goods as part of the normal course of business, provided that it has received payment from its own customer, or it is supplying the goods with reservation of title. Any claims made by the customer to its own customer as a result of reselling are hereby passed onto us, provided that these claims have not been paid in full. The customer is obliged to provide appropriate information on our request. In the event of default, we are entitled to disclose the assignment as security to the customer's customer and to request that payment be made to us.
- 4. We can demand the return of goods from the customer if there is a valid reason for this on the part of the customer (e.g. default of payment, suspended payment, application for the institution of insolvency proceedings, protests of bills, or indications of insolvency or over-indebtedness). In this case, we shall retain the delivery items until payment has been made in full. If this does not happen within a reasonable period of time, we are entitled to withdraw from the contract.
- 5. If the delivered goods are processed, mixed or combined, we are entitled to partial ownership of the new items at a proportion that corresponds to the proportion of the value of the processed goods under reservation of title in relation to the total value of all processed goods. In the event of combination with a property, the customer hereby assigns to us its claim for deliveries and services to the property owner or property user in order to secure our claim.

### § 5 Warranty

- 1. In the event of a defect, the customer is entitled to demand supplementary performance in the form of defect rectification. CobiNet is entitled to deliver defect-free goods instead. If the defect rectification fails twice, then the customer can reduce the purchase price or withdraw from the contract. The statutory deadlines apply to the exercising of warranty rights.
- 2. If the supplementary performance fails, the customer is entitled, at its own discretion, to demand a reduction of the agreed price or to withdraw from the contract.
- In accordance with the statutory provisions, CobiNet GmbH is liable for compensation claims based on intent or gross negligence. Except in the case of intent, liability for compensation is limited to foreseeable and typical damage. This also applies in the case of other conceivable liability cases. Liability for damage as a result of minor negligence is excluded.
- 4. CobiNet does not accept liability for damage to the customer that is caused by persons and institutions that are not our own vicarious agents (postal service, railway service, freight forwarders). The customer is entitled to take out transportation insurance or to request that we take out an insurance policy on its behalf and at its cost.

### § 6 Place of jurisdiction and place of performance

- 1. The place of jurisdiction is, at our discretion, our place of business or the customer's statutory place of jurisdiction.
- 2. Unless specified otherwise in the order confirmation, the place of performance is our place of business.

### § 7 Final provisions

- 1. The law of the Federal Republic of Germany applies exclusively to the exclusion of the UN Convention on Contracts for the International Sale of Goods. This also applies to deliveries outside of the Federal Republic of Germany.
- 2. Verbal agreements only apply following written confirmation.
- 3. The customer's address and order information is processed and saved electronically. We guarantee not to forward this information to third parties for the likes of marketing purposes.
- 4. If individual provisions of these Terms and Conditions or additional agreements are ineffective or disputable either in full or in part, this shall not affect the effectiveness of any other provisions or agreements. An ineffective provision is considered replaced by a regulation that most closely reflects the commercial intent of the contract.

THE GERMAN **DEVELOPER AND PRODUCER** FOR OUTSTANDING NETWORK-PERFORMANCE



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