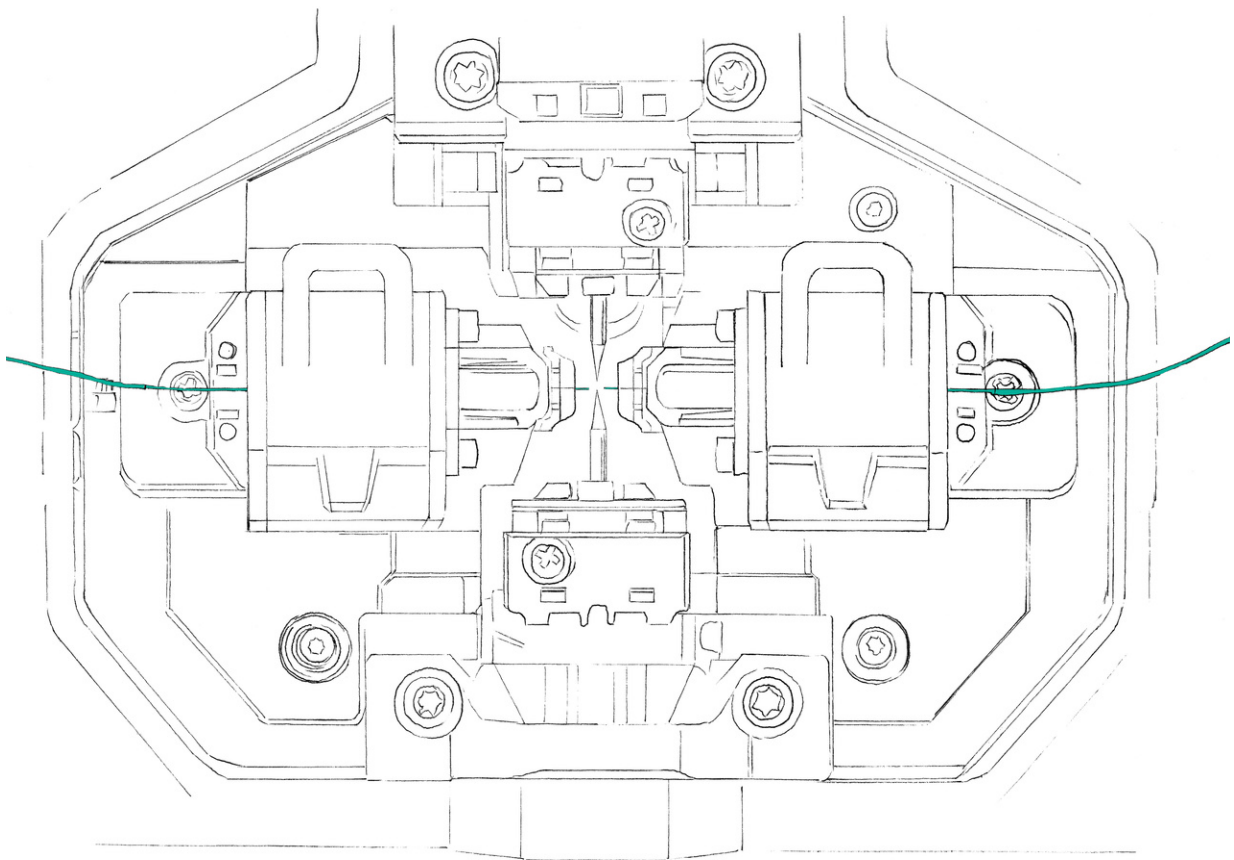# CABLEDOC

Passive network technology
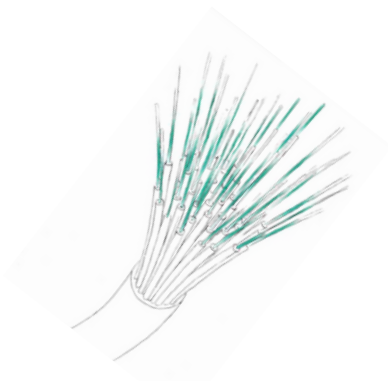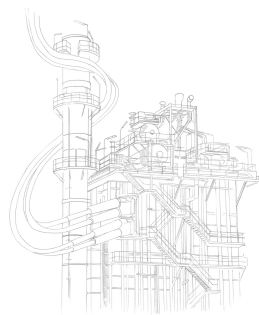
FTTx 2021

DOC's passive network technology

Data transmissions are essential for the modern world. Whether your future network is based on optical or electrical signals, we can help you with our wide range of products and passive components.

This chapter is part of a three series catalogue

FTTx products

Fiber to the X stands for communication networks with fiber optic connections all the way to the curb, down to the basement, and into the home

Industrial Networks

These products are used for networking in industry or, e.g. in ski resorts for access points and require customised solutions for this purpose

Structured cabling

We supply not only twisted pair networks but all products that give you high-speed connections and maximum reliability

Content

FTTx Portfollio

FTTx products

FTTx combines all telecommunications areas from, e.g. FTTH - Fiber to the Home, FTTC - Fiber to the curb and FTTA - Fiber to the Antenna. With FTTx, gigabit-capable broadband connections to and from houses, buildings and antennas (such as LTE, 4G, 5G etc.) can be realised. The so-called "last mile" is often established using fiber and/or copper cables. Due to the fact, only optical fiber is able to guarantee a future-proof, stable broadband supply all the way to the subscriber.
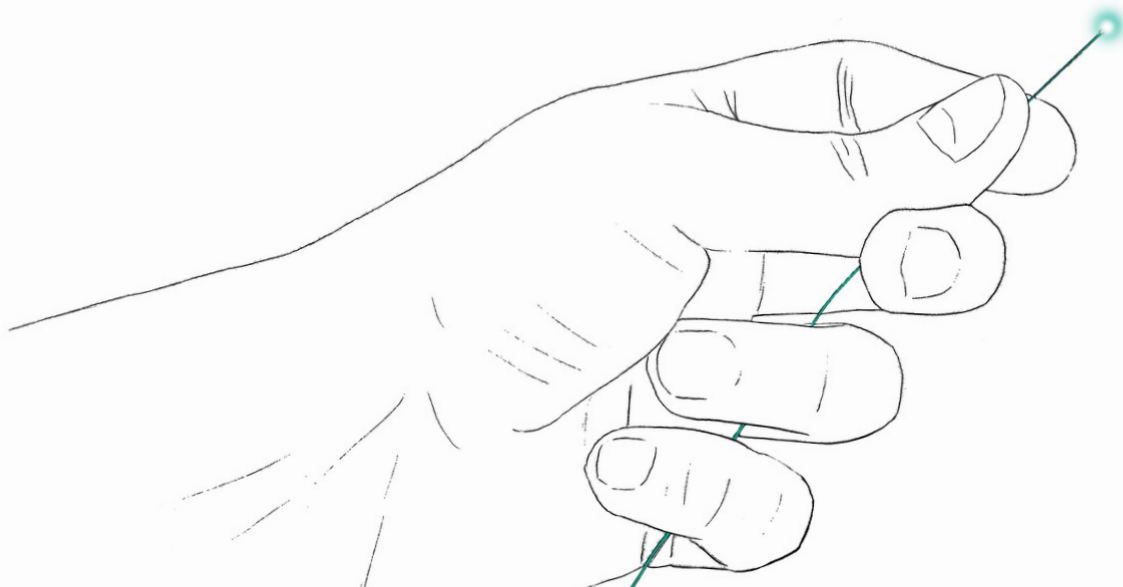
Challanges = chances

The next decade will confront us with the challenge of being able to provide users with services at high speed. Exponentially increasing data traffic is sometimes met by outdated infrastructure. A fiber-optic infrastructure ensures high upload and download capacities for your region.

Challenges

FTTx-requirements

High quality and simple assembly are the standards we set for our products. In this way, we help you to implement your projects professionally and quickly. Our product range includes cables, sleeves, cabinets, termination boxes, patch equipment and much more.
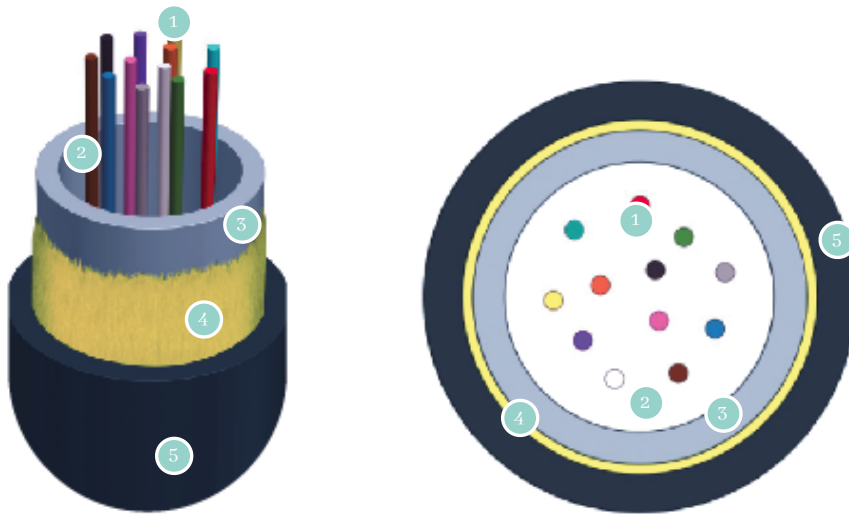
Portfolio

1. FO-Microcable "standard"

- PE sheath, class Fca
- Can be blown into micro ducts i.e. for house or building connections
- 2 - 24 fibers
- G.657.A1 or A2 fibers with 245 μm Coating (on request also with 200 μm fibers)

Cable cross sections

Schematic representation: Other color codes and cable types available on request.

Cable design

1. Fibers
2. Gel filling
3. Uni tube
4. Yarns
5. PE sheath

Product data & Product ID

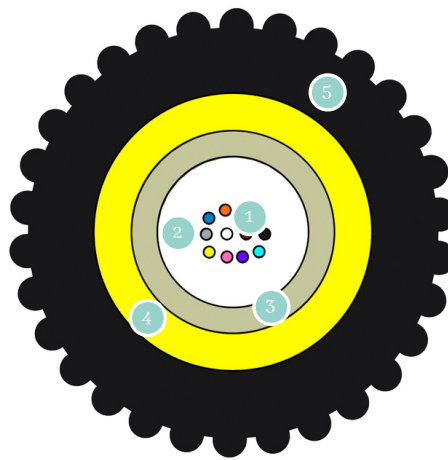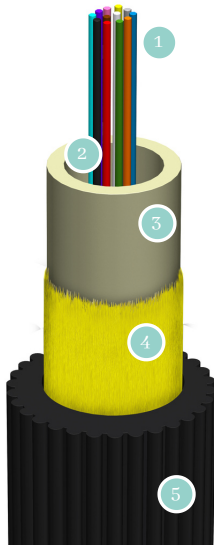| Type	2	4	6	8	12	24
Structure	1x2	1x4	1x6	1x8	1x12	1x24
Material outer sheath	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE
Diameter [mm]	2.5	2.5	2.5	2.5	2.5	2.8
Tensile performance [N]	50	50	50	50	50	50
Cable weight [kg/km]	4	4	4	5	5	5
Crush [N/100mm]	200	200	200	200	200	200
Storage temperature [°C]	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70
Installation temperature [°C]	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40
Operating temperature [°C]	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
Product-ID G.657.A1	LK-HA-PE-UP-[structure]-A1-250					
Product-ID G.657.A2	LK-HA-PE-UP-[structure]-A2-250					

Description

CABLEDOC's microcables are suitable for outdoor installation in micro ducts. The cables are characterized by a thin cable structure and cost-effective solution.

1. FO-Microcable "Long-range"

- Blow-in optimised PE sheath, class Fca
- Can be blown into micro ducts i.e. for house or building connections
- 2 - 24 fibers (selection shown below)
- G.657.A1 or A2 fibers with 245 µm coating (on request also with 200 µm fibers)

Cable cross sections

Schematic representation: Other color codes and cable types available on request.

Cable design

1. Fibers
2. Gel filling
3. Uni tube
4. Yarns
5. PE seath with tyres

Product data & Product ID

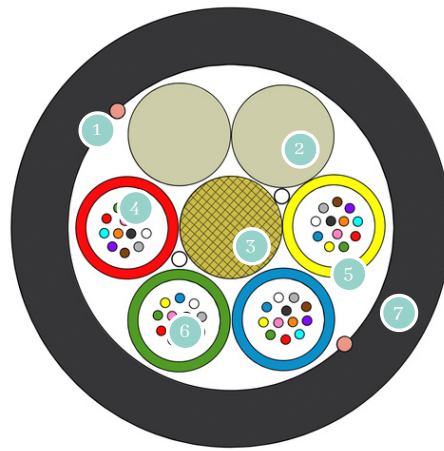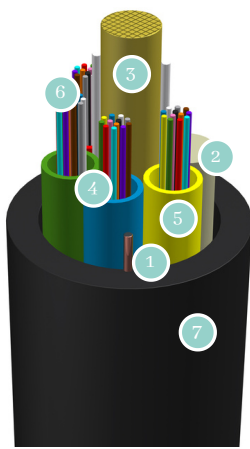| Type	2	4	6	8	12	24
Structure	1x2	1x4	1x6	1x8	1x12	1x24
Material outer sheath	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE
Diameter [mm]	2.5	2.5	2.5	2.5	2.5	2.8
Tensile performance [N]	50	50	50	50	50	50
Cable weight [kg/km]	4	4	4	5	5	5
Crush (N/100mm)	200	200	200	200	200	200
Storage temperature [°C]	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70
Installation temperature [°C]	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40
Operating temperature [°C]	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
Product-ID G.657.A1	LK-HA-PE-RP-[structure]-A1-250					
Product-ID G.657.A2	LK-HA-PE-RP-[structure]-A2-250					

Description

CABLEDOC's microcables are suitable for extra long outdoor installation lenghts in micro ducts. The cables are characterized by a thin cable structure, sawtooth sheath and cost-effective solution.

1. FO-Minicable

- PE sheath, class Fca
- Can be blown into micro ducts
- 12 - 576 fibers (selection shown below)
- G.657.A1 fibers with 245µm coating

Cable cross sections

Schematic representation: Other color codes and cable types available on request.

Cable design

1 Ripcord
2 Filler
3 FRP
4 Gel filling
5 Loose tube
6 Fiber
7 PE sheath

Pdoduct data & Product-ID

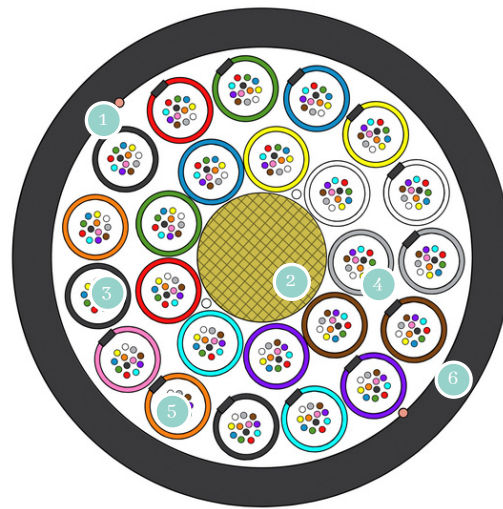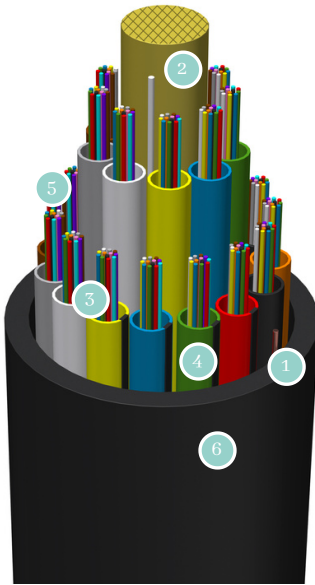| Type (selection)	48	96	144	192	288	432	576
Structure	4x12	8x12	12x12	16x12	24x12	18x24	24x24
Material outer sheath	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE
Diameter [mm]	5.4	6.1	7.9	7.9	9.3	11.4	13.4
Tensile performance [N]	600	800	800	800	1000	1000	1200
Cable weight [kg/km]	26	36	52	52	80	105	140
Crush [N/100mm]	500	500	500	500	500	500	500
Storage temperature [°C]	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70
Installation temperature [°C]	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40
Operating temperature [°C]	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
Product-ID G.652.D	LK-MI-PE-UX-[structure]-D-250						
Product-ID G.657.A1	LK-MI-PE-UX-[structure]-A1-250						

Description

The fiber optic minicables from CABLEDOC are suitable for outdoor installation in micro ducts. The cables are characterized by a thin cable structure and cost-effective solution.

CABLEDOC

1. FO-Minicable slim

- PE sheath and reduced overall diameter, class Fca
- Can be blown into suitable micro ducts
- 12 - 576 fibers (selection shown below)
- Reduced by G.657.A1 fibers with 200µm coating

Cable cross sections

Schematic representation: Other color codes and cable types available on request.

Cable design

1. Ripcord
2. FRP
3. Gel filling
4. Loose tube
5. Fiber
6. PE sheath

Type (selection)	48	96	144	192	288	432	576
Structure	4x12	8x12	12x12	8x24	24x12	18x24	24x24
Material outer sheath	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE
Diameter [mm]	4.5	4.5	5.6	7.2	8.1	9.6	11.3
Tensile performance [N]	200	800	800	800	800	800	1200
Cable weight [kg/km]	16	26	26	43	58	78	110
Crush [N/100mm]	500	500	500	500	500	500	500
Storage temperature [°C]	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70
Installationstemperatur [°C]	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40
Operating temperature [°C]	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
Product-ID G657A1 200um	LK-MI-PE-UX-[structure]-A1-200						

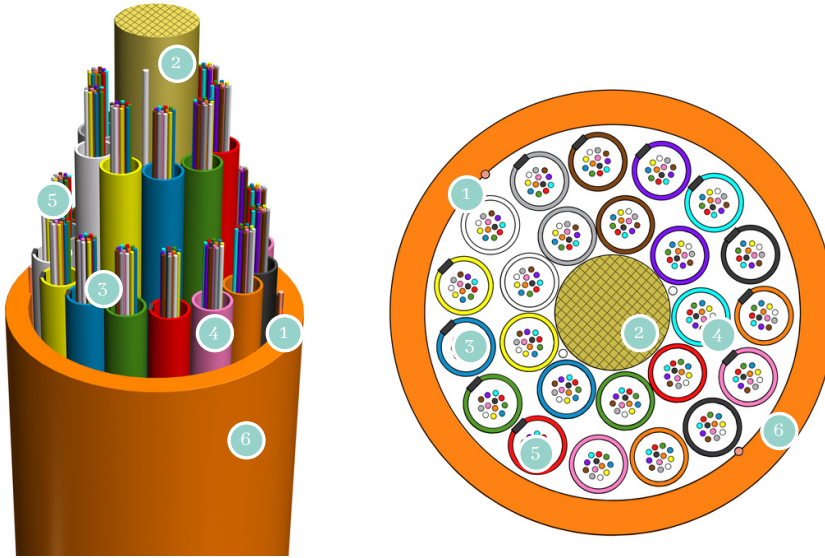**Product data & Product ID**

Description

The fiber optic minicables slim line from CABLEDOC are suitable for installation in very small micro ducts. The cables are characterized by an extra thin cable structure and and high-density solution.

1. FO-Minicable PA Slim

- Reduced friction due to PA sheath, class Fca
- Can be blown into suitable micro ducts
- 12 - 576 fibers (selection shown below)
- Reduced by G.657.A1 fibers with 200μm coating

Cable cross sections

Schematic representation: Other color codes and cable types available on request.

Cable design

1. Ripcord
2. FRP
3. Gel filling
4. Loose tube
5. Fiber
6. PA12 sheath

Product data & Product ID

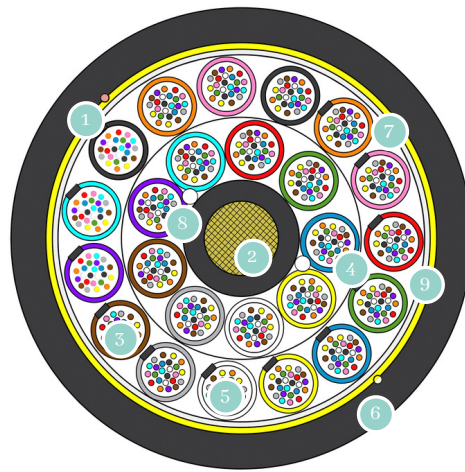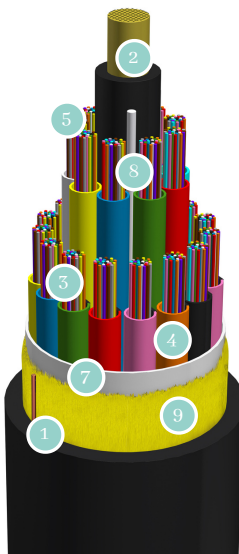| Type (selection)	48	96	144	192	288	432	576
Structure	4x12	8x12	12x12	8x24	24x12	18x24	24x24
Material outer sheath	PA12	PA12	PA12	PA12	PA12	PA12	PA12
Diameter [mm]	4.5	4.5	5.6	7.2	8.1	9.6	11.3
Tensile Performance [N]	200	800	800	800	800	800	1200
Cable weight [kg/km]	16	26	26	43	58	78	110
Crush [N/100mm]	500	500	500	500	500	500	500
Installation temperature [°C]	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70
Installation temperature [°C]	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40
Operating temperature [°C]	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
Product-ID	LK-MI-NY-UX-[structure]-A1-200						

Description

The fiber optic minicables slim line with Nylon sheath from CABLEDOC are suitable for installation in very small micro ducts. The cables are characterized by an extra thin cable structure, low friction and high-density solution.

CABLEDOC

1. FO-Outdoor duct cable

- PE sheath, class Fca
- Fiber optic tube cable with aramid or glass yarns for rodent retardation
- 12 - 864 fibers (selection shown below)
- G.652.D fibers with 245µm coating

Cable cross sections

Schematic representation: Other color codes and cable types available on request.

Cable design

1 Ripcord
2 FRP
3 Gel filling
4 Loose tube
5 Fiber
6 HDPE sheath
7 Water-blocking tape
8 Water-blocking yarns
9 Glass or Aramid yarns

Pdoduct data & Product-ID

Type (selection)	48	72	96	144	288	432	576
Structure	4x12	6x12	8x12	12x12	24x12	18x24	24x24
Material outer sheath	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE
Diameter [mm]	9.45	9.45	11.3	13.9	16.2	17.2	19.8
Tensile performance [N]	2500	2500	2500	3000	3000	3000	3000
Cable weight [kg/km]	75	75	95	145	180	225	355
Crush [N/100mm]	1500	1500	1500	1500	1500	1500	1500
Storage temperature [°C]	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70	-30~+70
Installation tempreature [°C]	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40	-15~+40
Operating tempreature [°C]	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70
Produkt-ID Aramid yarns	LK-RO-PE-UA-[structure]-D-250						
Produkt-ID Glass yarns	LK-RO-PE-UG-[structure]-D-250						

Description

The fiber optic cables from CABLEDOC are suitable for outdoor installation and for direct burial or pipe installation. The cables are characterized by a robust cable structure and cost-effective solution.

2. Outdoor distribution frame

- Simple, practical and functional design with IP65 or IP66 dust and water resistance
- Highest protection against corrosion
- Welded stainless steel housing frame with 25 mm perforation (2 mm material thickness) and polyester powder coating with UV protection
- All removable parts made of aluminum (doors, back/side panels, roof)

Product

Schematic representation: Further product variants available on request.

Details

1   Standard
2   Lite
3   Wall-mount

Product data & Product ID

Typ	Standard	Lite	Wall-mount
Material	Aluminum cover and roof; Stainless steel frame and plinth	Aluminum	Aluminum
Structure	Double-walled	Double-walled	Single-walled
IP-class	IP66	IP65	IP66
Resilience	IK10	IK10	IK10
Color	RAL 7035 for body RAL 7046 for roof and plinth	RAL 7035	RAL 7035
Surface	Powder coated	Powder coated	Powder coated
Height	600 (12U), bis 1600 (34U) mm	500, 600 (12U), 800 (17U) mm	300 to 1200 (U25) mm
Wide	650 to 1000 mm	400 to 600 mm	200 to 800 mm
Depth	400 to 1000 mm	400 to 600 mm	155 to 400 mm
Product-ID	SK-[SD-WM]-[300-1600]-[200-1000]-[155-1000]-[IP65-IP66]		

Description

Our single or double-wall outdoor cabinet with removable back walls and ventilated roof in a compact design meets our customers' criteria. With the design already used for years, the outdoor area's extreme temperatures are no longer a big problem.

CABLEDOC

2. Standard racks - 19 inch

- 2 pair 19"-vertical profiles sliding and 1 pair of side walls with lock
- Front door safety glas (EN 12150-1) with swivel lever lock and rear panel with cable entry and lock
- 4 adjustable feet, GND/Grounding Set
- Inkl. installation sets

Product

Schematic representation: Further product variants available on request.

Details

① Front door

② Back wall

③ Safety glass (EN 12150-1) with swivelling lever locks

④ 19 inch-L-profile adjustable

Product data & Product ID

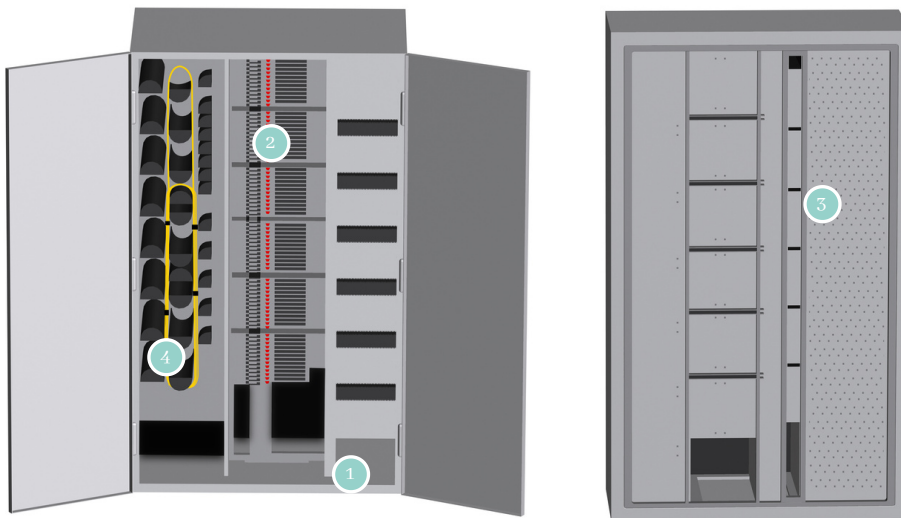| Type	19 inch-cabinet
Height	21, 27, 42 and 45 U
Width	600 or 800 mm
Depth	600, 800 and 1000 mm
Structure	Welded frame and sheet steel 1.5 mm
Vertical profiles	2 pair 19 inch-vertical profiles movable and adjustable from the inside
IP-protection class	Standard: IP30
Front door	Safety glass door with swing lever lock or optional sheet steel door
Back wall and side panels	Removable with break-out cable entry and lock and sheet steel door, side panels removable with locks
Color	Standard RAL7035 or RAL9005 and optionally other colours
Breakout openings	For cable entry and installation of the ventilation unit
Adjustable feet	Included
Product-ID	SK-SR-19-[21-45]-[600-800]-[600-1000]

Description

Our rack series offers the customer an unbeatable ratio of price, benefit, and quality. These cabinets are ideal for installers and end customers who value straightforward cabinet ordering. The racks are perfect for network equipment, telecom cabinets, and computer rooms without critical requirements for load capacity, cable entries, or door/wall designs.

2. ODF - Infinty Rack

- Modular fibre optic rack system
- Suitable for POP or head-end stations as well as local exchanges, replacement of obsolete 19" infrastructure racks, data centres, workspaces for providers or various FTTx applications
- Manufactured from an aluminium-magnesium alloy

Product

Schematic representation: Other product variants available on request.

ODF Design

1. Front view with sample equipment
2. Modular high-density-fiber management
3. Back view without back panel
4. Patch wall

Product data & Product ID

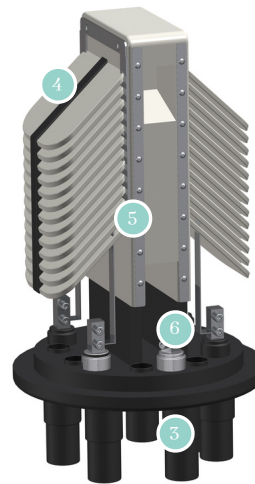| Type	Infinity Rack
Structure	Modular with openable, lockable and removable side panels and doors
Measures	2000 mm (H) x 1200 mm (W) x 600 mm (D)
Load capacity	250 kg
Placement	Max. 6 optical modules with 12 splice cassettes per module
Capacity	Max. 1.728 fiber optic connections per cabinet
Product-ID	OV-RO-PE-UG-[structure]-D-250

Description

The CDIR is a highly customisable cabinet or rack system with a patch panel that offers unique handling. The CDIR systems can be used with a large number of connections at various connection points in the fibre optic network (WAN, SAN, LAN or FTTx) for different configurations. The integration of splitters in local exchanges or POP stations (Point of Presence) is also possible without any problems.

3. Dome closure

- Capacity up to 576 fibers points
- Designed for FTTx applications
- With 9 different entries (oval, round and with adapter for 4x7mm)
- Max. 32 cable inputs/outputs

Product

Schematic representation: Other product variants available on request.

Details

1. Dome closure
2. Lock
3. Cable entrance
4. Splice cassettes
5. Absorption of loose tube overlength
6. Entries

Product data & Product ID

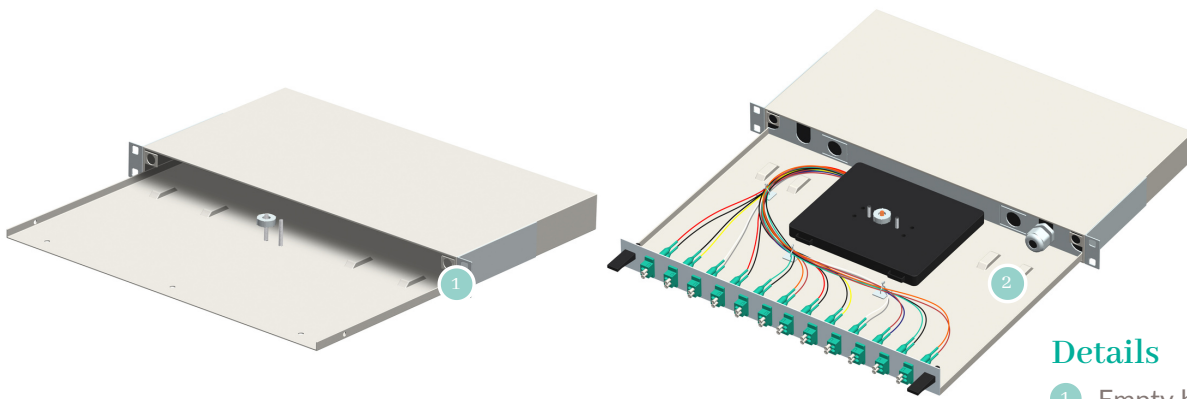| Type	Dome closure 144	Dome closure 288	Dome closure 576
Placement	12pcs (6-12f/cassette)	24pcs (6-12f/cassette)	48pcs (6-12f/cassette)
Max. capacity	144	288	576
Diameter	4.5 mm	4.5 mm	4.5 mm
Tenacity	200 N	200 N	200 N
Cable weight	16 kg	16 kg	16 kg
Product-ID	MU-[KL-GR]-[144-576]		

Description

The dome closure has one oval and 8 round cable entries at the bottom. The oval entry is used to seal uncut fibre optic cables. The round ports are used for branch cables, house connections and drop cables. There is a choice of separate entries (Φ5-Φ9), which can optionally be divided into 4x7mm ports through an adapter. A maximum of 32 cable inputs/outputs can be configured and adapted (particular types can also be customised).

4. 19-inch Splice- & Breakout Boxes

- Width x Height x Depth: 443mm x 42mm x 241mm, Weight: 3.1kg, IP20
- Front panel: max. 48 cut-outs, incl. labeling (screen printing)
- Ordering option: 1) as breakout box; 2) option 1 + pigtails enclosed; 3) option 1+2+pigtails detached and inserted

Product

Schematic representation: Other product variants available on request.

Details

1 Empty box

2 Occupied

Product data & Product ID

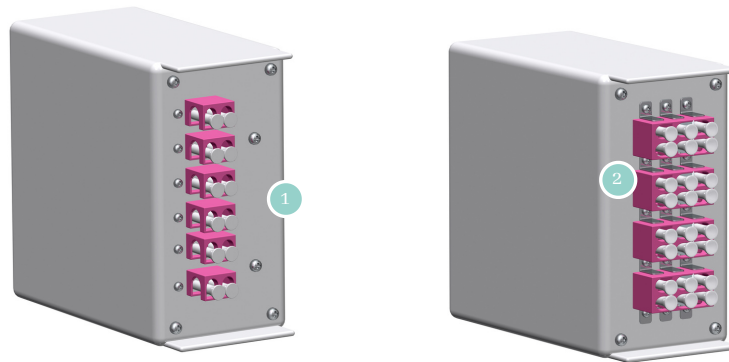| Splicebox	19-inch
Max. number of outbreaks	48 (front panel)
Max. number of cable entries	4 via PG screw connection - PG 16 (M25)
Adjustment range	50mm
Material	Cold rolled steel
Material thickness	1.2 mm
Coating	Electrostatic powder coating
Color	RAL 7035 grey, RAL 9005 black
Operating tempreature	-40 to +60 °C
Product-ID	FPP2-[2-48]-[E2000-ST]-[OS2-OM5]-[KIT/1]

Description

The robust snap locks guarantee an easy opening and closing of the box. After mounting in the 19" drawer, the splice box can be opened backwards like a drawer. The drawer can be tilted slightly downwards when extended, thus ensuring better access to the inside of the splice box. There are 4 openings for cable entry. The bottom of the box has small tabs for additional strain relief or attachment. Up to 96 fibers can be accommodated in one splice box.

4. DIN rail splice box

- Width x height x depth: 61mm x 115mm x 113mm, weight: 0.5kg, IP20
- Front panel: max. 48 breakouts, incl. labelling (screen printing)
- Ordering options: 1) as breakout box; 2) option 1 + pigtails enclosed; 3) option 1+2+pigtails detached and inserted

Product

Schematic representation: Further product variants available on request.

Details

① Simply equipped

② Triple equipped

Product data & Product ID

Splice box	Top-hat rails
Max. number of outbreaks	24 (front panel)
Max. number of cable entries	1 via PG screw connection - PG 11 (M20)
Adjustment range	50 mm
Material thickness	1.2 mm
Coating	Electrostatic powder coating
Color	RAL 7035 grey
Operating tempreature	-40 to +60 °C
Product-ID	HPP1-[2-24]-[FC-ST]-[OS2-OM5]-[KIT]

Description

The CABLEDOC DIN rail splice box is a high-quality and solid top-hat rail splice box for fiber optic applications. It is compact, robust, versatile, and can be equipped with various plug combinations. Thanks to the robust sheet steel design, the splice box is excellently suited for an industrial application. Therefore, it can be used in most server cabinets.

4. Termination box

- Width x height x dimensions: 215 mm x 150 mm x 50 mm, weight: 0.56 kg, IP65
- Splice cassette for 4 splices
- 2 cable inputs PG 21
- Bracket for 2 SC simplex or 2 LC duplex couplings

Product

Schematic representation: Other product variants available on request.

Details

1 Opened
2 Closed with lock

Product data & Product ID

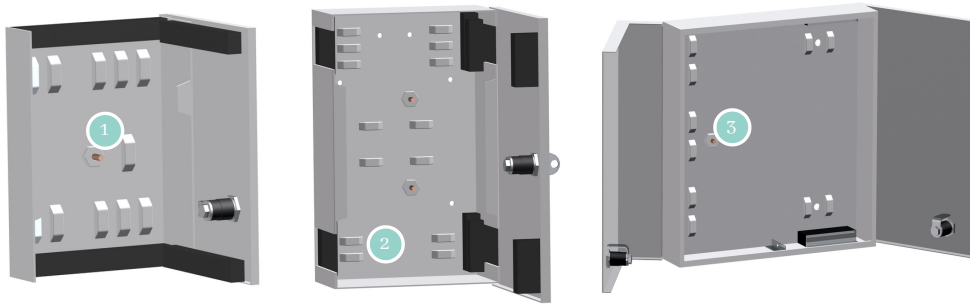| Termination box	Outdoor
Max. number of fibres	4
Max. Placement	2x SC Simplex or 2x LC Duplex
Fiber overlength intake	Yes
Lockable	Yes
IP protection class	IP65
Color	RAL 7035 grey
Operating tempreature	-40 to +60 °C
Product-ID	SK-HB-[2-24]-[E2K-SC]

Description

The termination box has a compact design and is suitable for building connection as well as intermediate distributors. It can accommodate up to two SC Simplex or LC Duplex couplings and has 2 cable entries, including PG21 glands. The IP65 protection class and the lockable design provides the necessary safety.

CABLEDOC

4. Wall-Mount splice box (WSB)

- A perfect combination of efficiency and safety
- Additional protection with insulating foam (small/medium) or strain relief clamps and guide clamps (large)
- Order options: 1) as breakout box; 2) option 1 + pigtails enclosed; 3) option 1+2+pigtails detached and inserted

Product

Schematic representation without inside accessories: Other product variants available on request.

Details

1. Small
2. Medium
3. Large

Product data & Product ID

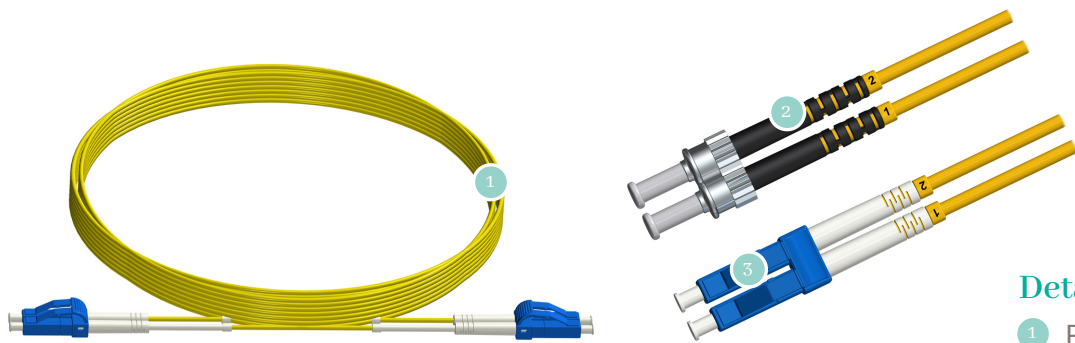| Wall- Mount splice box	Small	Medium	Large
W x H x L	150 mm x 265 mm x 55 mm	280 mm x 320 mm x 55 mm	455 mm x 450 mm x 55 mm
Weight	1 kg	2 kg	5.2 kg
Max. equipping	4 splice cassettes or 1 splice cassette and a distribution plate	8 splice cassettes or 4 splice cassette and a distribution plate	5 splice cassettes and one distribution plate
Material	Cold rolled steel	Cold rolled steel	Cold rolled steel
Material thickness	1.2 mm	1.2 mm	1.2 mm
Coating	Electrostatic powder coating	Electrostatic powder coating	Electrostatic powder coating
Color	RAL 7035 grey	RAL 7035 grey	RAL 7035 grey
Number of keys	2	2	2x2
Product-ID	APP[1/2/3]-[2-120]-[E2000-ST]/P[OS2-OM5]-[KIT/1]		

Description

The CABLEDOC Wall-Mount Splice Box (WSB) is a high-quality, solid, and wall-mountable splice box for fiber optic cables. The box is available in three different variations (small/medium/large) depending on your needs. All three options offer a perfect combination of efficiency and safety. The boxes can be inserted in various designs and can also be locked.

5. Fiber optic patch cable singlemode

- Low insertion and return loss
- High-temperature stability
- Available in various formats

Product

Schematic representation: Other product variants available on request.

Details

1 Patch cable
2 FC-plug
3 LC-plug

Product data & Product ID

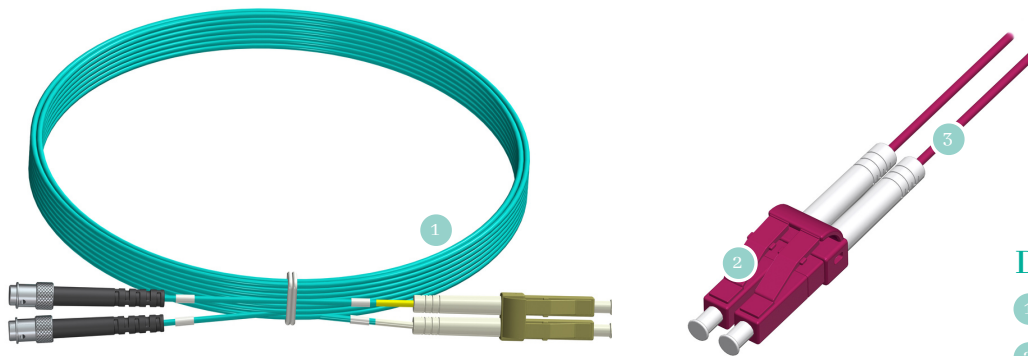| Singlemode	Simplex	Duplex
Insertion loss	≤0.2 dB	≤0.3 dB
Return loss	≥55 dB (PC) / ≥75 dB (APC)	≥45 dB (PC) / ≥65 dB (APC)
Repeatability	≤0.1 dB	≤0.1 dB
Contact durability	>1000 cycles	>1000 cycles
Interferometry testing	Regarding IEC 61300-3-17	Regarding IEC 61300-3-17
Cable-diameter	Standard 2 mm, andere 3 mm	Standard 2 mm, andere 3 mm
Length [m]	Standard 0.5/1/2/3/5/7.5/10/20/30, other lengths on request	Standard 0.5/1/2/3/5/7.5/10/20/30, other lengths on request
Fiber	G.652D, G.655, G.657.A1	G.652D, G.655, G.657.A1
Sheathing	LSZH	LSZH
Cable variations	Simplex (OS2)	Duplex, duplex flat (OS2)
Operating tempreature	-40 to +85 °C	-40 to +85 °C
Product-ID	FP[S/D/F][cable-diameter][fiber]-[E2000-ST]/[E2000-ST]-[length]	

Description

CABLEDOC offers a single-mode patch cable with a variety of termination options, including hybrid connectors. Besides, CABLEDOC has many years of experience in manufacturing high-quality fiber optic cables, which are released only after strict quality control procedures. Each cable is individually packaged with a unique serial number and test result.

CABLEDOC

5. Fiber optic patch cable multimode

- Low insertion and return loss
- High-temperature stability
- Available in various formats

Product

Schematic representation: Other product variants available on request.

Details

1. Patch cable
2. LC-plug (Duplex)
3. OM4

Product data & Product ID

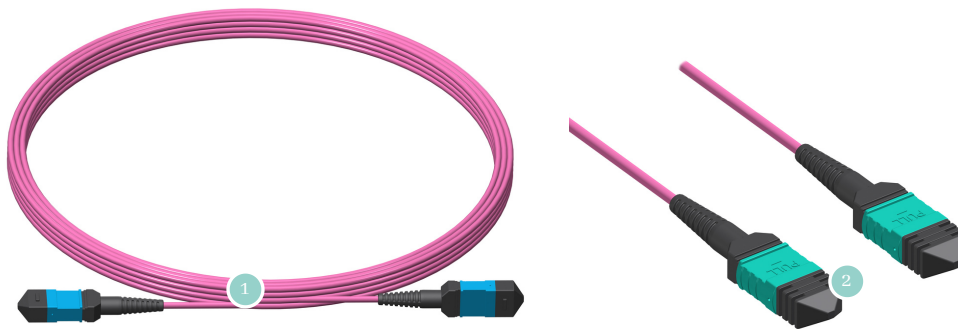| Multimode	OM1 to OM5
Insertion loss	≤0.25 dB
Return loss	≥30 dB
Repeatability	≤0.1 dB
Contact durability	>1000 cycles
Interferometry testing	Regarding IEC 61300-3-17
Cable-diameter	Standard 2 mm, others 3 mm
Length [m]	Standard 0.5/1/2/3/5/7.5/10/20/30, other lengths on request
Sheath	LSZH
Cable variation	Simplex, duplex, duplex flat
Operating temperature	-40 to +85 °C
Product-ID	FP[S/D/F][cable-diameter][fiber]-[E2000-ST]/[E2000-ST]-[length]

Description

CABLEDOC offers multimode patch cable with a variety of termination options, including hybrid connectors. Besides, CABLEDOC has many years of experience in manufacturing high-quality fiber optic cables, which are released only after strict quality control procedures. Each cable is individually packaged with a unique serial number and test result.

CABLEDOC

5. MPO-Patch cable

- Low insertion and return loss
- Excellent durability
- High-temperature stability
- Telcordia GR-1435-CORE compatible

Product

Schematic representation: Other product variants available on request.

Details
1. Packed
2. MPO-plug

Product data & Product ID

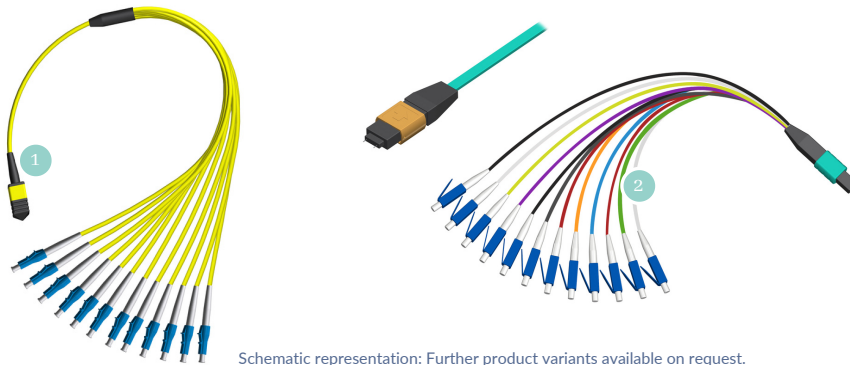| Type	SM Standard	SM Low Loss	MM Standard	MM Low Loss
Insertion loss	≤0.5 dB	≤0.3 dB	≤0.35 dB	≤0.2 dB
Return loss	≥60 dB (APC)	≥60 dB (APC)	≥35 dB (PC)	≥35 dB (PC)
Repeatability	≤0.1 dB	≤0.1 dB	≤0.1 dB	≤0.1 dB
Contact durability	>1000 cycles	>1000 cycles	>1000 cycles	>1000 cycles
Operating temperature	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Tensile performance	>50 N	>50 N	>50 N	>50 N
Product-ID	FTC[cable-diameter][fiber]-[MPO-MPO/MPO-LC]-[12/24]-[length]-[fiber occupancy]			

Description

The CABLEDOC MPO patch-cable facilitates rapid, high-density installation in data centers and other FTTx fiber-optic applications. Those applications can save money and time during a new installation or remodel. THE CABLEDOC MPO patch cords have low insertion loss and return loss, as well as excellent durability.

5. Fanout cable MPO-LC

- 12 - 24 fibers
- Singlemode & Multimode (OS2, OM3-OM5)
- Flexible whip and cable lengths possible
- OFNR, OFNP, LSZH compatible

Product

Schematic representation: Further product variants available on request.

Design

1 MPO-plug

2 LC-splitter

Product data & Product ID

Type	SM Low Loss	MM Low Loss
Insertion loss (MPO)	≤0.35 dB	≤0.35 dB
Insertion loss (LC)	≤0.3 dB	≤0.3 dB
Return loss (MPO)	≥60 dB	≥30 dB
Return loss (LC)	≥50 dB	≥30 dB
Repeatability	≤0.2 dB	≤0.2 dB
Stability	>500 cycles	>500 cycles
Operating temperature	-40 to +85 °C	-40 to +85 °C
Product-ID	FTC3[OS-OM5]-MP/[MP/LC]-[12/24]-[length]-[fiber occupancy]	

Description

CABLEDOC fanout cable MPO-LC can be used to connect a 12 or 24 fiber MPO connector with the LC connector on the trunk cable. In addition to the standard lengths, CABLEDOC also offers individual lengths according to customer requirements. The fanout cable allows flexible design and connection in the data cabinet.

CABLEDOC

5. OF-Pigtails

- Low insertion and return loss
- High-temperature stability & small packsize
- Available in various formats

Product

Schematic representation: Further product variants available on request.

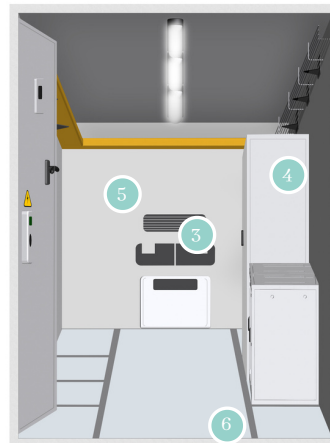## Details

① Pigtails (exemplary)

Product data & Product ID

Pigtails (Example. LC)	Multimode	Singlemode PC	Singlemode APC 8°
Insertion loss (typ.)	<0.10 dB max:<0.20 dB	<0.10 dB max:<0.20 dB	<0.10 dB max:<0.20 dB
Return loss	>35 dB	>45 dB	>70 dB
Repeatability	≤0.1 dB	≤0.1 dB	≤0.1 dB
Contact durability	>500 cycles at max 0.20 dB	>500 cycles at max 0.20 dB	>500 cycles at max 0.20 dB
Operating temperature	-40 to +75 °C	-40 to +75 °C	-40 to +75 °C
Product-ID	FPT9[OS2-OM5][optional multicolor]-[E2000-ST]-[1.5/2m]		

Description

The CABLEDOC pigtails are characterized by low insertion and return loss, good durability, and interchangeability. The new packaging type has an even higher packing density than before. They are used with inserted CABLEDOC splice boxes or installations but are also available separately. The pigtails are available in all common connector types in simplex/duplex variants or PC/APC-ground and various classes and lengths. Each the package is delivered packed with a unique serial number and a test report.

CABLEDOC

6. POP Station

- Turnkey station guarantees highest quality with easiest handling and maintenance
- Modular design for up to over 10.000 fibers
- Plug & Play function and connection for emergency generator
- Access control and frost monitor

Product

Design

1 Access control

2 Advertising and design space

3 Climate system

4 Infinity rack

5 Cable trays

6 Raised floor

Schematic representation: Other product variants available on request.

Product data & Product ID

Kabeltyp	Small	Medium	Large
Rack-Plätze	3	5	7
Dimensions	4.5m x 2.65m x 2.88m	6.5m x 2.65m x 2.88m	6.5m x 2.65m x 2.88m
Access control	Installation availabe	Installation availabe	Installation availabe
Climate system	Air conditioner or ventilation system	Air conditioner or ventilation system	Air conditioner or ventilation system
Roof construction	Installation availabe	Installation availabe	Installation availabe
Product-ID	KS-[KL-GR]-[DA-KDA]-[DB-KDB]-[KL-LF]		

Description

Our customers do not receive an off-the-shelf solution but a central solution that is easy to install and handle for their optical fibers. This ideal price/performance ratio does not result in any compromises in terms of safety. Our know-how guarantees a flexible solution for our customer's fiber center that is precisely adapted to the requirements.

CABLEDOC

7. Consumable material

- Extensive, high-quality consumables on the subject of fiber optics are available
- Orderable in the partner webshop

Product

Schematic representation: Further product variants available on request.

Description

1   Materials and accessories

Product data & Product ID

Consumable material	Example
Fiber protection tubes 32mm	Tube length approx. 86 cm, wire at one end, PG 16 nut at the other end
Fiber protection tubes 40mm	Tube length approx. 86 cm, wire at one end, heat shrink tube at the other end
PG 16-screwing	Available in grey & black, screw connection + nut
Blind plugs	All common plug types, 100 piece packaging, smaller quantity also available
Cable holder	1000 piece packaging, smaller quantity also available
Product-ID	On demand

Description

CABLEDOC offers a comprehensive portfolio about the topic of FTTx. Therefore, we also provide various accessories such as couplings, cable ties, or pull-in protection. The high-quality materials, some of which were developed in-house, are used for CABLEDOC products, but they are also available separately in the partner webshop.

Notes

CABLEDOC