METZ CONNECT
We realize ideas

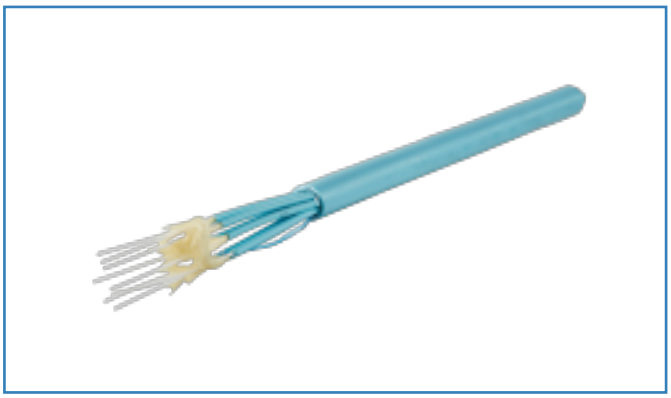
Data sheet

OpDAT breakout cable 8x1 OM3 - bend insensitive, class D_{ca} s1 d1 a1

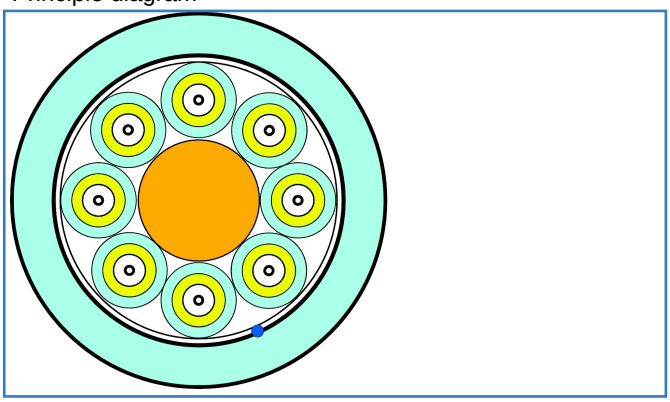
P/N 150B085000000M
EAN 4250184197881

2018-13-03

Illustrations



Principle diagram



See enlarged drawings at the end of document

Product specification

- connection cable I-V(ZN)HH
- breakout cable for direct connector termination for indoors and outdoors
- bend insensitive fiber
- cable jacket: LSHF-FR
- UV resistant, metal-free, longitudinally watertight
- cable structure: several separately strain relieved cables in one outer jacket
- strain relief: Aramid
- applicable standards: EN 50173-1, ISO 11801 2nd edition, IEC 60794-2, IEC 60794-2-10, EN 187000
- fire behaviour: class D_{ca} s1 d1 a1 acc. to EN 50399 (Klassifizierung nach EN 13501-6)

Variants:

Number of OS2 fibers	4x1, 8x1, 12x1, 24x1
Number of OM5 fibers	4x1, 8x1, 12x1
Number of OM4 fibers	2x1, 4x1, 8x1, 12x1, 24x1
Number of OM3 fibers	4x1, 8x1, 12x1, 24x1

METZ CONNECT GmbH | Im Tal 2 | 78176 Blumberg | Germany
Phone +49 7702 533-0 | Fax +49 7702 533-433

RIA CONNECT BTR NETCOM

Data sheet

OpDAT breakout cable 8x1 OM3 - bend insensitive, class D_{ca} s1 d1 a1

P/N 150B085000000M

EAN 4250184197881

2018-13-03

Technical Data

General Data	
Fields of application	
	Structured building cabling, Office Fiber to the Desk, yes, Data center
Design	breakout cable
Transmission technology	Fiber optic
Color	aqua
Mode type of the fiber	Multimode
Fiber class	OM3 (ISO/IEC 11801/EN 50173 & IEC 60793-2-10/EN 60793-2-10 A1.a.2)
Cable Type	Breakout
Number of cables/ cores	1
Number of fibres each cable/ wire	8
Fiber construction	50/125 µm
Weight	100.00 kg/km

Connections/interfaces	
Connector technology interface 1	Free line end
Connector technology interface 2	Free line end
Cable sheath diameter (min. - max.)	
Cable sheath diameter	10.00 mm
Cable sheath diameter	0.394 in.

Optical characteristics	
Attenuation of the fiber	
Attenuation of the fiber in the cable at 850 nm	3.0 dB/km
Attenuation of the fiber in the cable at 953 nm	2.3 dB/km
Attenuation of the fiber in the cable at 1300 nm	1.0 dB/km

Mechanical characteristics	
strain relief	aramide fibres
Permanent tensile strength	800 N
Short term tensile strength	1600 N
Maximum installation load (max.)	2400 N
Maximum installation load	100.00 mm
Maximum installation load	3.937 in.
Maximum operating bending radius	150.00 mm

Data sheet

OpDAT breakout cable 8x1 OM3 - bend insensitive, class D_{ca} s1 d1 a1

P/N 150B085000000M

EAN 4250184197881

2018-13-03

Technical Data

Mechanical characteristics	
Maximum operating bending radius	5.906 in.
Impact resistance	20 J
Crush (compressive strength)	1500 N
Fire load	1500 MJ/km

Materials and material properties	
Material - Cable jacket	LSHF-FR
Bend insensitivity	yes
Flame retardancy	yes
Halogen free	yes
Metallfrei	yes
UV-resistance	yes

Environmental conditions	
Temperature (min. - max.)	
Temperature - Storage °C	-40 - 70 °C
Temperature - Storage °F	-40 - 158 °F
Temperature - Operating °C	-20 - 70 °C
Temperature - Operating °F	-4 - 158 °F
Temperature - Installation °C	-20 - 70 °C
Temperature - Installation °F	-4 - 158 °F

Approvals	
RoHS	compliant

The product meets the following standards	
Generic cabling systems	
General requirements	ISO/IEC 11801 Ed.2 | DIN EN 50173-1
Optical fibers: Product specifications	
Sectional specification for category A1 multimode fibres	ISO/IEC 60793-2-10 (A1a.2)

Data sheet

OpDAT breakout cable 8x1 OM3 - bend insensitive, class D_{ca} s1 d1 a1

P/N 150B085000000M

EAN 4250184197881

2018-13-03

Technical Data

The product meets the following standards	
Optical fibers: Indoor optical cables	
Family specification for multi-fibre optical cables	ISO/IEC 60794-2-20
Test on gases evolved during combustion of materials from cables	
Determination of the halogen acid gas content	IEC 60754-1
Determination of acidity (by measuring the pH value) and conductivity	IEC 60754-2
Tests on electric and optical fibre cables under fire conditions	
Test for vertical flame propagation for a single insulated wire or cable	DIN EN 60332-1-2
Test for vertical flame spread of vertically-mounted bunched wires or cables	ISO/IEC 60332-3-24
Measurement of smoke density of cables burning	ISO/IEC 61034-2
Common test methods for cables under fire conditions	
Fire behaviour - class	fire behaviour: Class D_{ca} s1 d1 a1 acc. to EN 50399 (classification acc. to EN 13501-6)
ITU-T standard	G.651.1

Packing details	
Type of packaging	meter

Data sheet

OpDAT breakout cable 8x1 OM3 - bend insensitive, class D_{ca} s1 d1 a1

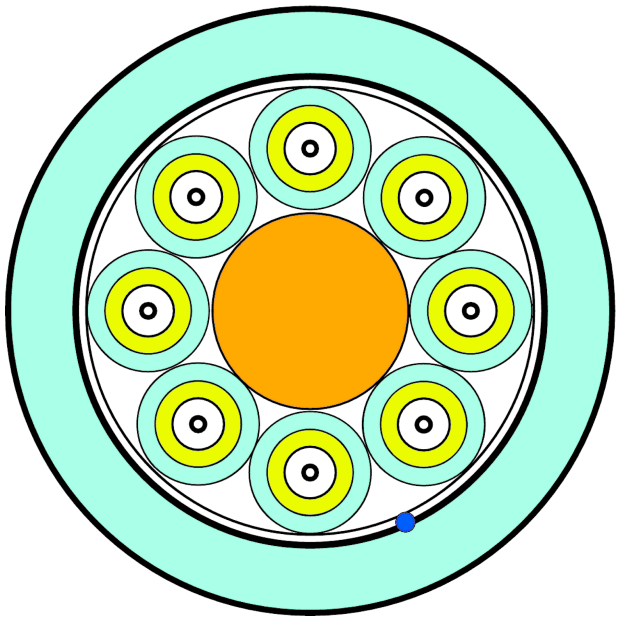
P/N 150B085000000M

EAN 4250184197881

2018-13-03

Illustrations

Principle diagram



OpDAT breakout cable 8x1 OM3 - bend insensitive, class D_{ca} s1 d1 a1

P/N 150B085000000M
EAN 4250184197881

2018-13-03

Fiber color coding

Fiber color code		
	1	red
	2	green
	3	blue
	4	yellow
	5	white
	6	grey
	7	brown
	8	violet

Data sheet
OpDAT fiber OM3 BR

P/N
150XXX5

2018-13-03

Technical Data

General Data	
Transmission technology	Fiber optic
Mode type of the fiber	Multimode
Fiber class	OM3 (ISO/IEC 11801/EN 50173 & IEC 60793-2-10/EN 60793-2-10 A1.a.2)
Fiber construction	50/125 µm

Transmission characteristics	
Transmission rate up to 10 GBit (Gigabit-Ethernet)	IEEE 802.3an
Transmission rate up to 100 GBit	IEEE 802.3ba
Reach	
Reach 1000BASE SX	1000 m
Reichweite 10GBASE SR	300 m
Reach 40GBASE SR4	140 m
Reichweite 100GBASE SR4	70 m
Reichweite 100GBASE SR10	140 m
Overfilled (OFL) modal bandwidth at 850 nm (min.)	1500 MHz * km
Overfilled (OFL) modal bandwidth at 1300 nm (min.)	500 MHz * km
Effective modal bandwidth (EMB) at 850 nm (min.)	2000 MHz * km

Connections/interfaces	
Connector technology interface 1	Free line end
Connector technology interface 2	Free line end
Fiber core diameter	50 ± 2.5 µm
Core-/ Fiber cladding diameter	125.0 ± 1.0 µm
Primary coating diameter - colored	250 ± 15 µm
Primary coating diameter - uncolored	242 ± 7 µm

Optical characteristics	
Attenuation of the fiber	
Attenuation of the fiber in the cable at 850 nm	max. 2.5 dB/km
Attenuation of the fiber in the cable at 1300 nm	max. 0.7 dB/km
Maximum value of cable attenuation at 850 nm	3.0 dB/km
Maximum value of cable attenuation at 1300 nm	1.0 dB/km

Data sheet
OpDAT fiber OM3 BR

P/N 150XXX5

2018-13-03

Technical Data

Mechanical characteristics	
Proof stress level	min. 0.7 (˜ 1 %) GPa
Typische durchschnittliche Abziehkraft	min. 1.0 max. 3.0 N
Strip force (peak)	min. 1.3 max. 8.9 N
Biegeverlust	
Dornradius = 7.5 mm, 2 Umdrehungen bei 850/1300 nm	min. 0.2 - max 0.5 dB
Dornradius = 15 mm, 2 Umdrehungen bei 850/1300 nm	min. 0.1 - max 0.3 dB
Fiber cladding non-circularity	max. 0.7 %
Core non-circularity	max. 5 %
Core (MDF)-cladding concentricity error	max. 1 µm
Primary coating concentricity error	max. 5 %
Primary coating-cladding concentricity error	max. 6
Inhomogeneity of OTDR measurement report at 1310 nm und 1550 nm	max. 0.1 dB/km
Group refractive index	
Gruppen-Brechungsindex bei 850 nm	1.482
Gruppen-Brechungsindex bei 1300 nm	1.477
Numerical aperture	0.200 ± 0.015
Materials and material properties	
Bend insensitivity	yes
The product meets the following standards	
Generic cabling systems	
General requirements	ISO/IEC 11801 cat. OM3 | TIA/EIA 568-C
Data centers	ISO/IEC 24764
Optical fibers: Measuring methods and test procedures	
Fibre geometry	ISO/IEC 60793-1-20
Coating geometry	ISO/IEC 60793-1-21
Length measurement	ISO/IEC 60793-1-22
Fibre proof test	ISO/IEC 60793-1-30
Coating strippability	ISO/IEC 60793-1-32
Attenuation	ISO/IEC 60793-1-40
Bandbreite	ISO/IEC 60793-1-41
Numerical aperture	ISO/IEC 60793-1-43
Gruppenlaufzeitdifferenz	ISO/IEC 60793-1-49

Data sheet
OpDAT fiber OM3 BR

P/N
150XXX5

2018-13-03

Technical Data

The product meets the following standards	
Optical fibers: Product specifications	
Sectional specification for category A1 multimode fibres	ISO/IEC 60793-2-10 (A1a.2)
ITU-T standard	G.651.1
TIA/ANSI-492	AAAC