METZ CONNECT
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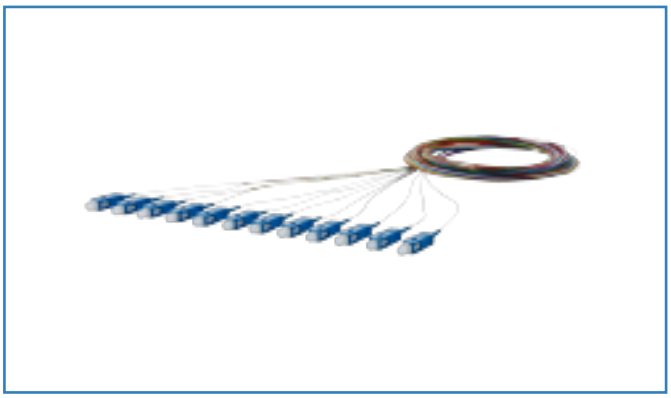
Data sheet

OpDAT pigtail SC-UPC, OS2 - bend insensitive, 12 colors

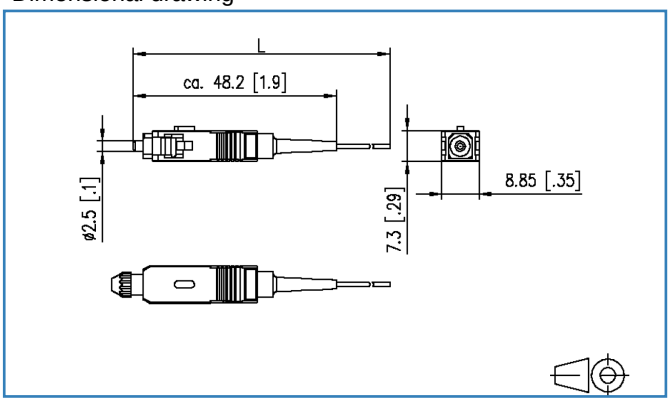
P/N 150Q1CO0020E
EAN 4250184149743

2015-08-07

Illustrations



Dimensional drawing



See enlarged drawings at the end of document

Product specification

- Single mode fiber OS2, E9/125 µm, bend insensitive according to IEC 60793-2-50 type B6_a and B6_b and G.657.A2 and B2, compatible to G.652.D
- Semi-tight buffered fiber dia. 0.9 mm, 12 colors, secondary and primary coating in the same color
- Length 2.0 m
- Plug connector mounted on one side, all types according to IEC 61754
- With test report, insertion loss and return loss tested at 100 %
- Packing unit: 12 pieces
- Order quantity refers to 1 piece and has always to be a multiple of 12
- Example: 24x 150Q1CO0020E = 2 packing units with 12 pieces each
- Variants with UPC polishing: LC, SC, ST, E2000 and other plug types available on demand
- Variants with APC polishing: LC, SC, E2000 and other plug types available on demand

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Technical Data

General Data	
Fields of application	
	Office Data center
Design	pigtail
Transmission technology	Fiber optic
Color	blue
Dimensions	
Dimension - Interface 2 (L x W x H)	48.20 x 8.85 x 7.30 mm
Dimension - Interface 2 (L x W x H)	1.90 x 0.35 x 0.29 in.
Mode type of the fiber	Single mode
Fiber class	OS2 (IEC 60793-2-50 B.1.3, B6_b & ITU-T G.657.A2, G.657.B2, G.652.D)
Cable Type	pigtail(s)
Number of cables/ cores	1
Shape	UPC (Ultra Physical Contact)
Fiber construction	9/125 µm
Cable length (m)	2 m
Cable length (ft)	6.56168 ft

Transmission characteristics	
Reach	
Reach 1000BASE LX	5000 m
Reach 10GBASE L	10000 m
Reach 10GBASE EW/ER	40000 m
Reach 40GBASE LR4	10000 m
Reach 100GBASE ER4	10000 m

Connections/interfaces	
Connector technology interface 1	Free line end
Connector technology interface 2	SC
Primary coating diameter	0.25 mm
Primary coating diameter	0.01 in.
Secondary coating diameter	0.90 mm
Secondary coating diameter	0.04 in.
Ferrule diameter	2.50 mm
Ferrule diameter	0.10 in.

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Technical Data

Electrical characteristics	
Insertion loss	max. 0.4 dB
Return loss	min. 55 dB
Attenuation of the fiber in the cable at 1310 nm	0.38 dB/km
Attenuation of the fiber in the cable at 1383 nm	0.38 dB/km
Attenuation of the fiber in the cable at 1550 nm	0.38 dB/km
Attenuation of the fiber in the cable at 1625 nm	0.38 dB/km
Mechanical characteristics	
Cut-out interface 2	SC-S, LC-D, E2000
Insertion and withdrawal force	min. 5 N
Minimum bending radius	7.50 mm
Minimum bending radius	0.30 in.
10 turns on a mandrel R= 15 mm, @ 1550 nm	0.03 dB
1 turn on a mandrel R= 7.5 mm, @ 1550 nm	0.5 dB
Materials and material properties	
Bend insensitivity	yes
Environmental conditions	
Temperature (min. - max.)	
Temperature - Storage °C	-20 - 60 °C
Temperature - Storage °F	-4 - 140 °F
Temperature - Operating °C	-20 - 60 °C
Temperature - Operating °F	-4 - 140 °F
Approvals	
RoHS	compliant
The product meets the following standards	
Fibre optic connector interfaces	IEC 61754-4
FOCIS - Fiber Optic Connector Intermateability Standard	TIA/EIA-604-3

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Technical Data

The product meets the following standards	
Optical fibers: Indoor optical cables	
Sectional specification for class B single-mode fibres	ISO/IEC 60793-2-50 type B.1.3 & B6_b
Optical fibers - Interconnecting devices and passive components - basic test and measuring methods	
Fibre optic interconnecting devices and passive components	ISO/IEC 61300-3-6 | ISO/IEC 61300-3-34
Standard colours for insulation for low-frequency cables & wires	IEC 60304
ITU-T standard	G.657.A2, G.657.B2, G.652.D

Classifications	
ETIM 5.0	EC000748

Packing details	
Type of packaging	12 pc(s) / plastic bag
Packaging unit - Weight (gram)	728 g
Packaging unit - Weight (pound)	1.60 lb

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Accessories

P/N	Designation
15090401-I	OpDAT crimp splice protection
15090402-I	OpDAT shrink splice protection
15090401-E	OpDAT crimp splice protection

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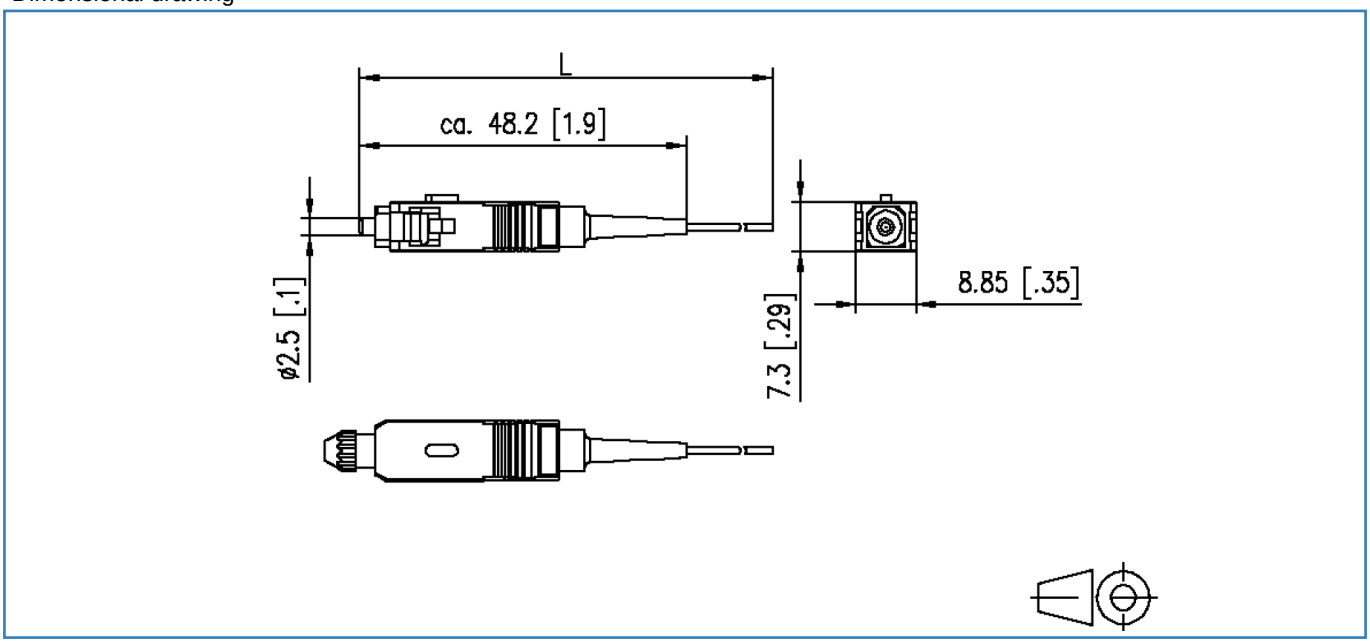
Dimensional drawing



Data sheet
OpDAT fiber OS2 BR

P/N
150XXX9

2015-08-07

Technical Data

General Data	
Transmission technology	Fiber optic
Mode type of the fiber	Single mode
Fiber class	OS2 (IEC 60793-2-50 B.1.3, B6_b & ITU-T G.657.A2, G.657.B2, G.652.D)
Fiber construction	9/125 µm

Transmission characteristics	
Reach	
Reach 1000BASE LX	5000 m
Reach 10GBASE L	10000 m
Reach 10GBASE EW/ER	40000 m
Reach 40GBASE LR4	10000 m
Reach 100GBASE ER4	10000 m
Chromatic dispersion coefficient	
Chromatic dispersion coefficient - In the interval 1285 nm - 1330 nm (max.)	max. |3.7| ps/km * nm
Chromatic dispersion coefficient - At 1550 nm (max.)	max. 18.5 ps/km * nm
Chromatic dispersion coefficient - At 1625 nm (max.)	max. 23.0 ps/km * nm
Zero dispersion slope (max.)	max. 0.092 ps/(nm² * km)
Polarisation mode dispersion (PMD) coefficient, cabled (min.)	min. 0.1
Threshold wavelength (max.)	max. 1260

Connections/interfaces	
Connector technology interface 1	Free line end
Connector technology interface 2	Free line end
Fiber cladding diameter	125.0 ± 0.7 mm
Primary coating diameter - colored	242 ± 7 µm

Electrical characteristics	
Attenuation of the fiber in the cable at 1310 nm	max. 0.38 dB/km
Attenuation of the fiber in the cable at 1383 nm	max. 0.38 dB/km
Attenuation of the fiber in the cable at 1550 nm	max. 0.38 dB/km
Attenuation of the fiber in the cable at 1625 nm	max. 0.25 dB/km

Data sheet

OpDAT fiber OS2 BR

P/N 150XXX9

2015-08-07

Technical Data

Mechanical characteristics	
Proof stress level	min. 0.7 (˜ 1 %) GPa
Strip force (peak)	1.2 = Fpeak.strip max. 8.9 N
10 turns on a mandrel R= 15 mm, @ 1550 nm	max. 0.03 dB
10 turns on a mandrel R= 15 mm, @ 1625 nm	max. 0.01 dB
1 turn on a mandrel R= 10 mm, @ 1550 nm	max. 0.01 dB
1 turn on a mandrel R= 15 mm, @ 1625 nm	max. 0.02 dB
1 turn on a mandrel R= 7.5 mm, @ 1550 nm	max. 0.5 dB
1 turn on a mandrel R= 7.5 mm, @ 1625 nm	max. 1.00 dB
Fiber cladding non-circularity	max. 0.7 %
Core (MDF)-cladding concentricity error	max. 0.5 µm
Primary coating concentricity error	max. 5 %
Primary coating-cladding concentricity error	max. 12
Inhomogeneity of OTDR trace for any two 1000 metre fiber length	max. 0.1 dB/km
Group refractive index at 1310 and 1550 nm	1.467
Group refractive index at 1625 nm	1.468
Field width at 1310 nm	8.8 ± 0.4 µm
Feldweite bei 1550 nm neu	9.8 ± 0.5 µm

The product meets the following standards	
Generic cabling systems	
General requirements	ISO/IEC 11801 | DIN EN 50173-1
Industrial area	ISO/IEC 24702:2006 Kat. OS2 und OS1
Optical fibers: Generic specification - basic test procedures for optical cables	
General and definitions	ISO/IEC 60794-1-20
Mechanical Tests Methods	ISO/IEC 60794-1-21
Optical fibers: Measuring methods and test procedures	
Fibre proof test	ISO/IEC 60793-1-30
Coating strippability	ISO/IEC 60793-1-32
Attenuation	ISO/IEC 60793-1-40
Chromatic dispersion	ISO/IEC 60793-1-42
Threshold wavelength	ISO/IEC 60793-1-44
Mode field diameter	ISO/IEC 60793-1-45
Macrobending loss	ISO/IEC 60793-1-47
Polarization mode dispersion	ISO/IEC 60793-1-48

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OpDAT fiber OS2 BR

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Technical Data

The product meets the following standards	
Optical fibers: Indoor optical cables	
Sectional specification for class B single-mode fibres	ISO/IEC 60793-2-50 type B.1.3 & B6_b
ITU-T standard	G.657.A2, G.657.B2, G.652.D
TIA/ANSI-492	AAAB