



Fibre optic cable

MDIC Dca

Article number: 69278

19-10-2017

Description

4x SM G.657.A1

The Micro Drop Installation Cable (MDIC Dca) is a special Access cable with low bend radius, no waterpeak G.657.A1 fibres. Ruggedized construction with excellent installation performance, easy strippable for fast installation. This cable solves all in-house installation problems.

**Trading information**

Product group	Fibre optic cable
Series	Fibre optic cable Single mode
Type	MDIC Dca
Net. Weight	16 kg/km
Sheath marking	ACE - TKF - MDIC Dca 4x SM G.657A1 (1x4) 69278 {Batch} [-CE-] DoP: 0052 {Year} {Length}

Trade lengths

	(69278 / 8713182102302)
Reel à 500	(69278H X 500/25 / 8713182225438)



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Construction characteristics

Cable type	MDIC
Fibre type	Single mode 9/125
Optical fibre standard	ITU-T G.657.A1
Number of fibres	4
Cable metal free	Yes
Strip method	Double sided Rip seam
Strain relief	Yes
Type of strain relief	FRP
Material outer sheath	LSZH
Colour outer sheath	White
Outer sheath thickness	1 mm
Outer diameter approx.	3.7 mm

Properties

Application	Inside
Euro fire class according to EN 13501-6	Dca
Euro class smoke production according to EN 13501-6	s2
Euro class flaming droplets/particles according to EN 13501-6	d2
Euro class acidity according to EN 13501-6	a1



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Technical characteristics

Test procedures	IEC 60794-1-2
Longitudinal water blocking	No
Installation temperature	-10 / 50 °C
Transportation and storage temperature	-30 / 70 °C
Operational temperature range Ta1 - Tb1	-30 / 70 °C
UV resistant	Yes
UV-protection	ISO 4892/2

Mechanical characteristics

Tensile load short term (Tm)	150 N
Tensile load long term (Tl)	50 N
Min. bending radius after installation	37 mm
Min. bending radius during installation	56 mm
Crush resistance acc. meth.E3A	1300 N/dm
Crush resistance E3A long	1000 N/dm
Crush load E3A long application time	10 min
Crush resistance E3B short term (1min)	1300 N/dm
Crush resistance E3B long term	250 N/dm
Crush load E3B long application time	10 min
Mandrel diameter by Crush meth. E3B	25 mm
Impact strength	3 J
Striking surface radius	10 mm
Torsion resistance	1800 °/m
Kink resistance	30 mm



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Optical characteristics

Max. attenuation @ 1310 nm	0.4 dB/km
Max. attenuation @ 1550 nm	0.3 dB/km
Bending radius cable sinlge bend (max. 4x 90°)	30 mm
Bending radius fibre storage (	15 mm

Other properties

Halogen free (acc. EN 60754-1/2)	Yes
Vertical Flame Propagation (for Single Cable)	IEC 60332--2-2 / EN 50265-2-2
Vertical Flame Spread (for Bunched Cables)	IEC 60332-3-24 / EN 50266-2-4 (Cat.C)
Caloric value	0.3 MJ/km



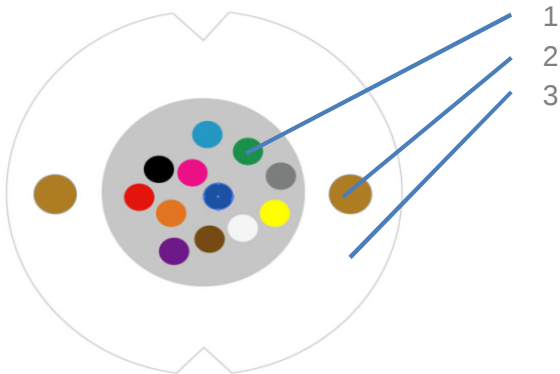
Product Information

Cable construction and colour code

MDIC Dca (Round)

Version: PM-M06J17

Indoor cable



Description:

- | | |
|---|--|
| 1 | Optical fibres |
| 2 | Longitudinal non-metallic strength members |
| 3 | Outer sheath |

Standard Colours:

Fibres

Group

- | | |
|----|-----------|
| 1 | Red |
| 2 | Green |
| 3 | Blue |
| 4 | Yellow |
| 5 | White |
| 6 | Grey |
| 7 | Brown |
| 8 | Violet |
| 9 | Turquoise |
| 10 | Black |
| 11 | Orange |
| 12 | Pink |



Fibre:

Product Characteristics - Optical fibres

type of fibre	Hydrogen passivated, dispersion unshifted, matched cladding. Bending loss insensitive singlemode fibre 9/125µm. Fully compatible with G.652.D fibre. Optical and geometrical properties exceed ITU recommendations G.652.D and G.657.A1
Standard	IEC-60793-2-50, B6-a1
Standard	ITU-T G.657.A1

Characteristics:

Properties

Unit

Mode field diameter; 1310nm	9.0 ± 0.3	µm
Mode field diameter; 1550nm	10.2 ± 0.4	µm
Core non-circularity	max. 6	%
Core/Cladding concentricity error	max. 0.4	µm
Cladding diameter	125.0 ± 0.5	µm
Cladding non-circularity	max. 0.6	%
Coating diameter	242 ± 5	µm
Coating/Cladding concentricity error	max. 8	µm
Temperature sensitivity; -60°C to +85°C	max. 0.05	dB/km
Bending sensitivity - 10 turns around Ø30mm - 1550nm	max. 0.1	dB
Bending sensitivity - 10 turns around Ø30mm - 1625nm	max.0.3	dB
Bending sensitivity - 1 turn around Ø20mm - 1550nm	max.0.75	dB
Bending sensitivity - 1 turn around Ø20mm - 1625nm	max.1.5	dB
Proof test level	min. 0.69	Gpa
Fibre curl	min. 4	m
Cable cut-off wavelength	max. 1260	nm
Zero-dispersion wavelength	1300 - 1324	nm
Zero-dispersion slope	max. 0.090	ps/nm ² .km
Chromatic dispersion; 1285nm - 1330 nm	max. 3.2	ps/nm.km
Chromatic dispersion; 1550nm	max. 17	ps/nm.km
Chromatic dispersion; 1625nm	max. 21	ps/nm.km
Polarisation mode dispersion; maximum individual fibre	max. 0.1	ps/√km
PMDq	max. 0.06	ps/√km
Max. attenuation at 1383nm (α_{1383}) [note a]	<max. α_{1310}	-
Effective Group Core Refractive Index; 1310 nm	1.4671	-
Effective Group Core Refractive Index; 1550 nm	1.4675	-
Effective Group Core Refractive Index; 1625 nm	1.4680	-

note a: after hydrogen ageing