



Fibre optic cable

MDIC Dca

Article number: 69271

06-08-2019

Description

2x 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
Type	MDIC Dca
Net. Weight	10 kg/km
Sheath marking	ACE - TKF - MDIC Dca 2x SM G.657A1 (1x2) 69271 {Batch} [-CE-] DoP: 0052 {Year} {Length}

Trade lengths

	(69271 / 8713182063214)
Reel à 750	(69271H X 750/25 / 8713182284961)



Fibre optic cable

MDIC Dca

Article number: 69271

06-08-2019

Construction characteristics

Cable type	MDIC
Cable metal free	Yes
Strain relief	Yes
Type of strain relief	FRP
Longitudinal water blocking	No
Colour outer sheath	White
Material outer sheath	LSZH
Dimension (height - width)	2.0 / 3.1 mm
Number of fibres	2

Properties

Application	Inside
Strip method	Double sided Rip seam
Operational temperature range Ta1 - Tb1	-30 / 70 °C
Installation temperature	-10 / 50 °C
Transportation and storage temperature	-30 / 70 °C

Technical characteristics

Test procedures	IEC 60794-1-2
-----------------	---------------



Fibre optic cable

MDIC Dca

Article number: 69271

06-08-2019

Mechanical characteristics

Tensile load short term (Tm)	150 N
Tensile load long term (TI)	50 N
Min. bending radius during installation	30 mm
Min. bending radius after installation	20 mm
Crush resistance acc. meth.E3A	3800 N/dm
Crush resistance E3A long	2000 N/dm
Crush load E3A long application time	10 min
Mandrel diameter by Crush meth. E3B	25 mm
Crush resistance E3B short term (1min)	2000 N/dm
Crush resistance E3B long term	1000 N/dm
Crush load E3B long application time	10 min
Impact strength	3 J
Striking surface radius	10 mm
Torsion resistance	1800 °/m
Kink resistance	30 mm

Optical characteristics

Fibre type	Single mode 9/125
Optical fibre standard	ITU-T G.657.A1
Max. attenuation @ 1310 nm	0.4 dB/km
Max. attenuation @ 1550 nm	0.3 dB/km
Bending radius fibre storage (15 mm



Fibre optic cable

MDIC Dca

Article number: 69271

06-08-2019

Other properties

Halogen free (acc. EN 60754-1/2)	Yes
UV-protection	ISO 4892/2
Caloric value	0.2 MJ/km
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
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)
UV resistant	Yes



Fibre: **Product Characteristics - Optical fibres**

type of fibre	Hydrogen passivated, dispersion unshifted, matched cladding. Bending loss insensitive singlemode fibre 9/125µm.
	Full 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, B-657.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. 0.7	%
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 - 100 turns around Ø50mm - 1550nm	max. 0.05	dB
Bending sensitivity - 100 turns around Ø60mm - 1625nm	max.0.05	dB
Bending sensitivity - 10 turn around Ø30mm - 1550nm	max.0.1	dB
Bending sensitivity - 10 turn 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. 0.7	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