



## MDIC Dca

### 4x SM G.657.A1

Article number: 69278

Date: 18-04-2023

The Micro Drop Installation Cable Dca (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.

MDIC Dca  
4x SM G.657.A1



### Product characteristics

Cable type	MDIC
Fibre type	Single mode 9/125
Optical fibre standard	ITU-T G.657.A1
Number of fibers	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
Marking	ACE - TKF MDIC Dca 4x SM G.657.A1 (1x4) 69278 {Batch} [-CE-] DOP0052 {Year} {Length}



## Application

Standardization	EN IEC 60794-2
Test procedures	EN IEC 60794-1-2
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

## Mechanical specification

Tensile load short term (Tm)	150 N
Tensile load Long Term (TI)	50 N
Impact strength	3 J
Min. bending radius during installation	56 mm
Min. bending radius after installation	37 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
Striking surface radius	10 mm
Torsion resistance	1800 °/m
Kink resistance	30 mm

## Optical specification

Category according to EN 50173	OS2
Max. attenuation @ 1310 nm	0,4 dB/km
Max. attenuation @ 1550 nm	0,3 dB/km
Bending radius fibre storage (<10 turns acc ITU rec)	15 mm



## Environmental specification

Longitudinal water blocking	No
Cable longitudinally watertight	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

## Other specification

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

## Logistical specifications

Unit	meter
Netto Weight (kg/m)	0.016
Default packaging	H X 500/25



# Fibre specification G.657.A1

ACE-DS-OT-VSP-SM-G657A1-v03-e

date : 11-08-2020

## Technical product information

### Product characteristics - optical fibers

#### Fibre

Type of fibre	Hydrogen passivated, dispersion unshifted, matched cladding bending loss insensitive single mode fibre 9/125 µm 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

Parameter	Properties	Unit
Mode field diameter: 1310 nm	9.0 ± 0.3	µm
Mode field diameter: 1550 nm	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 to +85 °C	max. 0.05	dB/km
Bending sensitivity - 100 turns around Ø50 mm - 1550 nm	max. 0.05	dB
Bending sensitivity - 100 turns around Ø60 mm - 1625 nm	max. 0.05	dB
Bending sensitivity - 10 turns around Ø30 mm - 1550 nm	max. 0.1	dB
Bending sensitivity - 10 turns around Ø30 mm - 1625 nm	max. 0.3	dB
Bending sensitivity - 1 turn around Ø20 mm - 1550 nm	max. 0.75	dB
Bending sensitivity - 1 turn around Ø20 mm - 1625 nm	max. 1.5	dB
Proof test level	min. 0.70	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 <sup>2</sup> ·km
Chromatic dispersion: 1285 nm – 1330 nm	max.  3.2	ps/nm·km
Chromatic dispersion: 1550 nm	max. 17	ps/nm·km
Chromatic dispersion: 1625 nm	max. 21	ps/nm·km
Polarisation mode dispersion: max. individual fibre	max. 0.1	ps/nm·km
PMD <sub>Q</sub>	max. 0.06	ps/√km
Max. attenuation at 1383 nm (α <sub>1383</sub> ) [note a]	< max. α <sub>1310</sub>	-
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	-

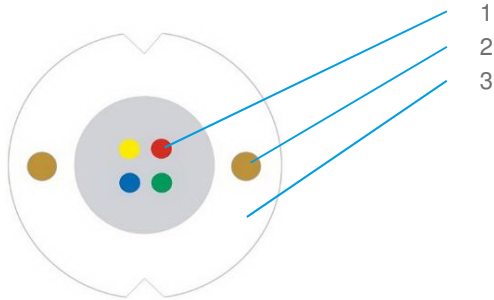
note a: after hydrogen ageing

## TECHNICAL PRODUCT INFORMATION

### Cable construction and colour code

#### MDIC Dca (round)

Indoor cable



#### Description

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

#### Standard colours

Fibres

Group 1

- 1 Red
- 2 Green
- 3 Blue
- 4 Yellow