



DAC - Fibre optic cable

Article number: 75404

23-06-2016

Description

4x SM G.657.A1

DAC Direct Access Cable - Outdoor Underground, Direct-buried, Metallfree, Central Tube Cable.

Light-weight, non-metallic, central tube direct-buried Access cable with low bend radius, no waterpeak G.657.A1 fibres, with small diameter for easy installation, longitudinally water-protected. This cable has a very high crush resistance and tensile strenght, is fast strippable (over >4 meter in one stroke). Due to extra strenght-members in the cable outersheath, this central tube design has an improved temperature range. Installation: direct burial application. Also blowable in (mini)tubes over a limited distance.



Trading information

Product group	Fibre optic cable
Series	Fibre optic cable Single mode
Type	DAC
Net. Weight	27 kg/km
Sheath marking	ACE - TKF DAC 4 x SM G.657.A1 A-DQ(ZN)9Y 75404 {Year} {Batch} {Length}

Trade lengths

Reel à 1	(75404 / 8713182095710)
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Construction characteristics

Cable type	DAC
Fibre type	Single mode 9/125
Optical fibre standard	ITU-T G.657.A1
Number of fibres	4
Number of fibres per tube	4
Number of cores	1
Type of tube	Loose tube, gel filled
Cable metal free	Yes
Strippability outer sheath	1000 mm
Strain relief	Yes
Type of strain relief	FRP + Aramid
Material outer sheath	Polypropylene
Colour outer sheath	Orange
Outer sheath thickness	1.5 mm
Outer diameter approx.	5.9 mm
Max. cord diameter	6.3 mm

Properties

Application	Outside
Blow in	No



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Technical characteristics

Test procedures	IEC 60794-1-2
Longitudinal water blocking	Yes
Longitudinal watertight construction	Super Absorbing Polymer
Radial water blocking	No
Installation temperature	-10 / 50 °C
Transportation and storage temperature	-40 / 70 °C
Operational temperature range Ta1 - Tb1	-30 / 70 °C
UV resistant	Yes
UV-protection	ISO 4892/2
Color fastness	Blue wool scale 5

Mechanical characteristics

Tensile load short term (Tm)	1200 N
Cable strain by Tm	0.33 %
Tensile load Long Term (Tl)	360 N
Min. bending radius after installation	45 mm
Min. bending radius during installation	60 mm
Crush resistance acc. meth.E3A	4000 N/dm
Impact strength	8 J
Impact strength (Shofel test)	3 J
Cable cutting resistance	300 N
Torsion resistance	1800 °/m
Kink resistance	60 mm

Optical characteristics

Attenuation @ 1310 nm	0.37 dB/km
Attenuation @ 1550 nm	0.21 dB/km
Attenuation @ 1625 nm	0.24 dB/km
Bending radius fiber (1 turn acc. to ITU rec.)	30 mm
Bending radius fibre storage (15 mm



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Other properties

Halogen free (acc. EN 60754-1/2)	Yes
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Product Information

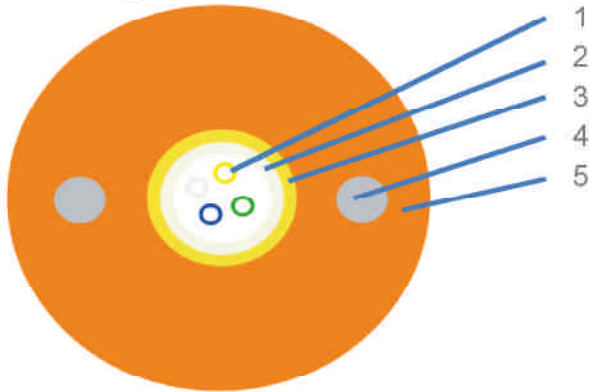
Cable construction and colour code

DAC nxSM G.657A

Version: PM-M11J15

FO cable with central tube

Embedded strength members; PP outer sheath



Description:

- 1 Optical fibres
- 2 Central Tube
- 3 Reinforcement
- 4 Rigid Elements
- 5 Polypropylene 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-T 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, uncoloured	242 ± 5	µm
Coating diameter, coloured	248 ± 6	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 PMDq	max. 0.1	ps/. km
Max. attenuation at 1383nm (α1383) [note a]	max. 0.08	ps/. km
Effective Group Core Refractive Index; 1310 nm	<max. α1310	-
Effective Group Core Refractive Index; 1550 nm	1.4671	-
Effective Group Core Refractive Index; 1625 nm	1.4675	-
	1.4680	-

note a: after hydrogen ageing