



Fibre optic cable

CTC Eca

Article number: 75053

27-07-2017

Description

24x SM G.657.A1

The Central Tube Cable Low Smoke Zero Halogen (CTC Eca) is a light-weight, non-metallic, universal central tube cable (indoor/outdoor) with small diameter, rodent protected, longitudinal water-protected, with Low Smoke Zero Halogen outersheath. Installation: by blowing or pulling, into conduits or on cable trays.

**Trading information**

Product group	Fibre optic cable
Series	Fibre optic cable Single mode
Type	CTC Eca
Net. Weight	59 kg/km
Sheath marking	ACE - TKF - CTC Eca 24x SM G.657.A1 (1x24) A/I-DQ(ZN)BH 75053 {Batch} [-CE-] DoP: 0039 {Year} {Length}

Trade lengths

Reel à 1	(75053 / 8713182109417)
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Construction characteristics

Cable type	CTC
Fibre type	Single mode 9/125
Optical fibre standard	ITU-T G.657.A1
Number of fibres	24
Number of fibres per tube	24
Number of cores	1
Type of tube	Loose tube, gel filled
Stripability optical element	> 1000mm, down to primary coating
Cable metal free	Yes
Strain relief	Yes
Type of strain relief	E-glass
Material outer sheath	LSZH
Colour outer sheath	Black
Outer diameter approx.	7.6 mm

Properties

Application	Inside/outside
Blowable	Yes
Euro fire class according to EN 13501-6	Eca



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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	-15 / 50 °C
Transportation and storage temperature	-40 / 70 °C
Operational temperature range Ta1 - Tb1	-40 / 70 °C
Max. attenuation increase during Ta1 - Tb1	0.05 dB
UV resistant	Yes
With rodent protection	Yes

Mechanical characteristics

Tensile load short term (Tm)	1600 N
Tensile load long term (Tl)	500 N
Min. bending radius after installation	115 mm
Min. bending radius during installation	150 mm
Crush resistance E3A short (1min)	3000 N/dm
Crush resistance E3A long	1500 N/dm
Crush load E3A long application time	15 min
Crush resistance E3B short term (1min)	1500 N/dm
Crush resistance E3B long term	600 N/dm
Crush load E3B long application time	15 min
Mandrel diameter by Crush meth. E3B	25 mm
Impact strength	5 J
Torsion resistance	360 °/m



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Optical characteristics

Fibre category	OS2
Max. attenuation @ 1310 nm	0.36 dB/km
Max. attenuation @ 1550 nm	0.21 dB/km
Max. attenuation @ 1625 nm	0.24 dB/km

Other properties

Halogen free (acc. EN 60754-1/2)	Yes
Vertical Flame Propagation (for Single Cable)	IEC 60332-1-2 / EN 50265-2-1

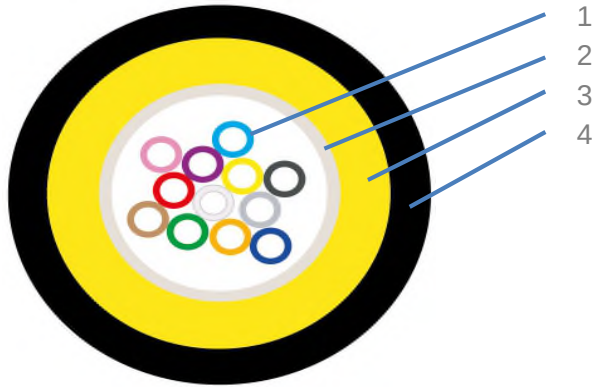


Product Information

Cable construction and colour code

CTC Eca

Version: PM-M06J17

FO cable with central tube
Indoor/Outdoor application

Description:

- | | |
|---|---|
| 1 | Optical fibres |
| 2 | Central tube with 2, 4, 6, 8, 12, 16 or 24 fibres |
| 3 | Reinforcement of glass yarns |
| 4 | Outer sheath |

Standard Colours:

Fibres

Group 1

Group 2

1	Red	13	Red +t
2	Green	14	Green +t
3	Blue	15	Blue +t
4	Yellow	16	Yellow +t
5	White	17	White +t
6	Grey	18	Grey +t
7	Brown	19	Brown +t
8	Violet	20	Violet +t
9	Turquoise	21	Turquoise +t
10	Black	22	Natural
11	Orange	23	Orange +t
12	Pink	24	Pink +t

note +t: indicates a black tracer



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