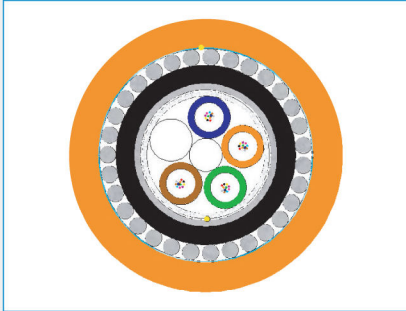


TF10020

Dry Core, Aluminium Tape Screened, Steel Wire Armoured, LSZH Double Sheathed, Fibre Optic Cable



Application

This cable is especially designed for harsh environments. The steel wire armour and the flame retardant zero halogen outer sheath make the cable suitable for installation under and above ground. Its UV stabilised low smoke zero halogen double sheath makes this cable flame retardant and relatively resistant to UV, oil, water and nuclear radiation. This dry core cable employs dual-side copolymer coated aluminum tape and water tightness compound within loose tube to provide resilient and robust moisture protection to the fibre.

Fire Rating

- IEC 60332-1, IEC 60332-24, IEC 61034-2, IEC 60754-1/2

Features

- **Central strength member (CSM):** glass fibre reinforced plastic material, LSZH covered if needed.
- **Tube:** thermoplastic material, containing up to 12 single mode optical fibres and filled with a suitable water tightness compound.
- **Stranding:** The required numbers of elements (tubes or fillers) are SZ stranded around the central strength member.
- **Longitudinal Water Tightness:** dry core
- **Peripheral reinforcement:** glass yarns.
- **Moisture barrier:** both sides copolymer coated aluminium tape. (Nomaluminium thickness 0.15mm, one rip cord beneath the tape)
- **Inner sheath:** LSZH according to EN 50290-2-27, UV stabilised (Nom thickness: 0.9mm, oxygen index \geq %25).
- **Armour :** Galvanized steel wire (Nom wire diameter : 0.9 mm, one layer helically polyester tape will applied over the armour)
- **Outer Sheath:** LSZH according to EN 50290-2-27, UV stabilised (one rip cord beneath the sheath, oxygen index \geq %25)

Technical Data

No. of Fibres		12	24	48	120
Design		2x6E+3Fillers	4x6E+1Filler	4x12E+1Filler	10x12E
Loose Tube / Filler - Ø	mm	2.0	2.0	2.3	2.3
CSM/Covered	mm	1.5	1.5	1.8	3.0/5.5
Sheath thickness-nom	mm	1.5	1.5	1.5	1.5
Cable Diameter	mm	14.0	14.0	14.9	19.0
Cable Weight	kg/km	321	321	357	544
Max installation tension	N	6000 Nt			
Min. bending radius	mm	Without Tension 15 x Cable-Ø		Under Maximum Tension 20 x Cable-Ø	
Temperature range	°C	Installation -10->+60;	Transport & Storage -40->+70;	Operation -20->+70;	

Please refer to our General Installation, Safety & Handling recommendations before handling.

Main Characteristics

Test	Standard	Value	Sanction*
Maximum Tension at installation (short term)	IEC 60794-1-2-E1	6000 Nt	$\Delta I/I$ fibre \leq 0.33%, $\Delta\alpha$ reversible
Tension opération max	IEC 60794-1-2-E1	2000 Nt	no fiber strain(\leq 0.05), $\Delta\alpha \leq$ 0.05 dB
Crush	IEC 60794-1-2-E3	2500 N / 100mm, max. 5 min	$\Delta\alpha$ reversible, after test
Impact	IEC 60794-1-2-E4	10 Nm, 3 impacts, r=300mm	$\Delta\alpha \leq$ 0.05 dB (after the test)
Repeated bending	IEC 60794-1-2-E6	R= 20 x cable Ø, 100N, 5 cycles	$\Delta\alpha \leq$ 0.05 dB (after the test)
Cable bend	IEC 60794-1-2-E11	R = 15 x cable Ø	$\Delta\alpha \leq$ 0.05 dB (after the test)
Temperature range	IEC 60794-1-2-F1	-30 -> +60°C	$\Delta\alpha \leq$ 0.05 dB /km
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water=1m	No water leakage after 24 hour (up to inner sheath)

* values for single-mode fibres, all optical measurements performed at 1550 nm

Ordering Information

TF10020 SERIES FO Cable part numbers are made up using the table below.

The part number always starts with the letters TF10020 to denote that it is a TF10020 SERIES FO Cable. This is followed by 3 numbers which symbolises the core quantity and then 2 letters to denote the fibre type.

Example of a TF10020 SERIES FO Cable part number:

TF10020048M1

The above example describes an OM1 (62.5um, Orange Sheath) TF10020 SERIES FO Cable, with 48 cores.

TF10020 SERIES	CORE QUANTITY	FIBRE TYPE
TF10020	XXX	XX
	012 - 12 CORES 024 - 24 CORES 048 - 48 CORES 120 - 120 CORES	SM - SINGLEMODE, G652D, 9um (yellow sheath) M1 - OM1, 62.5um (orange sheath) M2 - OM2, 50um (orange sheath) M3 - OM3, 50um (aqua sheath) M4 - OM4, 50um (aqua sheath)