



Optical Fibre Cables

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F103 (Formerly F5) QFCB

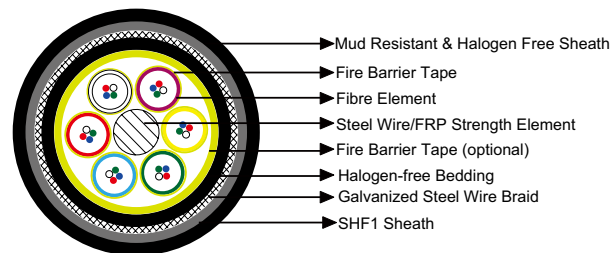
Applications

These steel armoured optical fibre cables are flame retardant, low smoke, halogen free and fire resistant, used for communication and emergency systems that need to be operational during fire.



Standards

- IEC 60794
- IEC 60811-2-1
- IEC 60331-25
- IEC 60332-3-24
- IEC 60332-3-22
- IEC 60754-1,2
- IEC 61034-1,2
- NEK 606:2016



Construction

- **Fibre Element:** Loose tube core design with fire barrier.
- **Central Strength Element:** Steel wire or fibre reinforced plastic (FRP).
- **Overall Fire Barrier(optional)**
- **Bedding:** Halogen free and flame retardant thermoplastic compound.
- **Armour:** Galvanized steel wire braid.
- **Outer Sheath1:** Halogen free and flame retardant, UV-stabilized, thermoplastic compound, SHF1.
- **Outer Sheath2:** Mud resistant and halogen-free thermoplastic compound.

Electrical Characteristics

Fibre Type		9/125	50/125	50/125	62.5/125
ITU-T type		G652.D	G651	G651	-
IEC11801 Classification		OS1 & OS2	OM2	OM3	OM1





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Core Diameter	µm	8.7±0.4	50±3.0	50±3.0	62.5±3.0
Cladding Diameter	µm	125 ± 1.0	125 ± 2.0	125 ± 2.0	125 ± 2.0
Coating Diameter	µm	245 ± 10	245 ± 10	245 ± 10	245 ± 10
Maximum Attenuation					
@850 nm	dB/km	-	3.0	3.0	3.5
@1300 nm	dB/km	-	1.5	1.0	1.5
@1310 nm	dB/km	0.36	-	-	-
@1550 nm	dB/km	0.22	-	-	-
Minimum Bandwidth(OFL*)					
@850 nm	MHz.km	-	500	1500	200
@1300 nm	MHz.km	-	500	500	600
Maximum Chromatic Dispersion					
1285-1330 nm	ps/nm.km	2.8	-	-	-
1550 nm	ps/nm.km	18	-	-	-
Zero Dispersion Wavelength	nm	1300~1324	-	-	-

Mechanical and Thermal Properties

- Bending Radius: 20×OD (during installation); 10×OD (fixed installed)
- Temperature Range: -40°C ~ +70°C

Dimensions and Weight

No. of Fibres	Construction No. of tubes×No. of fibres in each tube	Number of Fillers	Nominal Loose Tube Diameter mm	Nominal Overall Diameter mm	Nominal Weight kg/km
2	1×2	5	2.2	15.0	290
4	1×4	5	2.2	15.0	290
6	3×2	3	2.2	15.0	290
8	2×4	4	2.2	15.0	290
10	5×2	1	2.2	15.0	290
12	3×4	3	2.2	15.0	290
16	4×4	2	2.2	15.0	290
20	5×4	1	2.2	15.0	290
24	6×4	0	2.2	15.0	290
32	4×8	2	2.2	15.0	290
40	5×8	1	2.2	15.0	290
48	6×8	0	2.2	15.0	290