



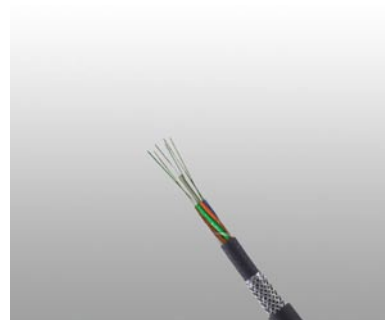
Optical Fibre Cables

www.caledonian-cables.co.uk

F1 QFCI

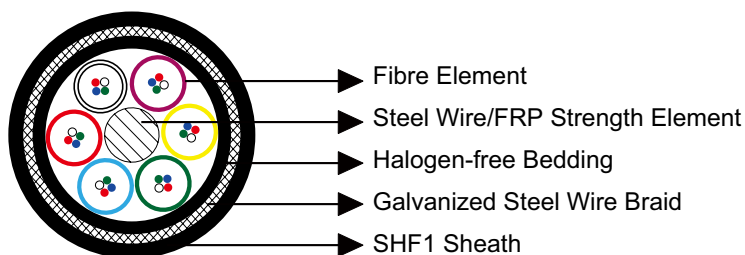
Applications

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 606:2004



Construction

- **Fibre Element:** Loose tube core design.
- **Central Strength Element:** Steel wire or fibre reinforced plastic (FRP).
- **Bedding:** Halogen free and flame retardant thermoplastic compound.
- **Armour:** Galvanized steel wire braid.
- **Outer Sheath:** Halogen free and flame retardant, UV-stabilized, thermoplastic compound, SHF1.

Optional

F4 QFCI-HCF: QFCI-HCF cables consist of loose tube fibre element, steel wire or FRP central strength element, halogen free and flame retardant thermoplastic bedding, galvanized steel wire braid armour, SHF1 sheath, HC-fire protection, fire resistant tape and SHF1 outer sheath.



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
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	13.9	244
4	1×4	5	2.2	13.9	244
6	3×2	3	2.2	13.9	244
8	2×4	4	2.2	13.9	244
10	5×2	1	2.2	13.9	244
12	3×4	3	2.2	13.9	244
16	4×4	2	2.2	13.9	244
20	5×4	1	2.2	13.9	244
24	6×4	0	2.2	13.9	244
32	4×8	2	2.2	13.9	244
40	5×8	1	2.2	13.9	244
48	6×8	0	2.2	13.9	244