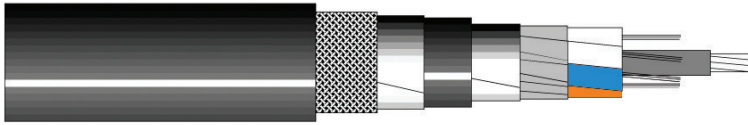


Fire Resistant QFCI/O/RM-JM/-F1

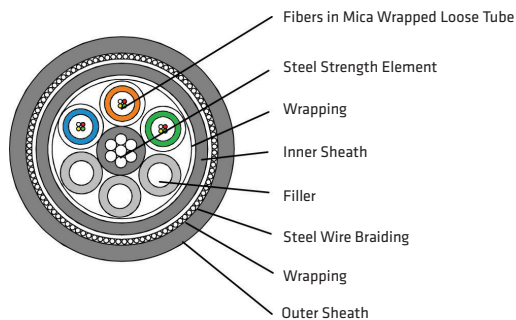
Indoor and outdoor, fire resistant, flame retardant halogen-free loose tube



Applications

Optical cable for indoor and outdoor use in vital communication and emergency systems that need to be operational during fire. The cable has a patented design that ensures operation for more than 3 hours in fires up to 1000°C. The cable is halogen free and flame retardant to protect against secondary damage to electronic equipment during and after fire. Outer sheath is made from black UV-stabilized and weather resistant material and may be exposed for shorter periods to fluids such as diesel, petrol, glycol, ethanol, white spirit and ASTM oil 2.

The resistance to these fluids is according to DOD-STD-1678, method 8030. The cable is reinforced with a steel wire braiding. The fibers are protected in gel-filled loose tubes stranded around a central strength member to ensure optimum performance and long life. Each fiber and loose tube is color coded for easy identification during splicing and termination. The outer sheath is marked to show fiber type and cable type.



Cable Properties

- **Tensile strength** (IEC 60794-1-2E1)
 - Max tensile load during installation 1500 N
 - Max tensile load during operation 500 N
- **Color Coding** (TIA/EIA-455-598C)
- **Crush** (IEC 60794-1-2E3) 3000 N/10cm
- **Impact** (IEC 60794-1-2E4) 20 impacts, 5J
- **Torsion** (IEC 60794-1-2E7) ± 1 turn/1m
- **Cable bending**
 - Minimum bending diameter 250 mm
 - Cable bend (IEC 60794-1-2E11) < 0.1dB/ ±5 turn
- **Temperature window**
 - Operation -30°C to +60°C
 - Installation -10°C to +60°C
 - Storage -40°C to +70°C
- **Chemical resistance**
 - Mineral oils IRM 902 (IEC60811-2-1) - 7 days/23°C
 - 4 hours/70°C
 - Diesel - IRM 903 (IEC60811-2-1) - 7 days/23°C
 - 4 hours/70°C
- **Fire and smoke classifications**
 - IEC 60331-25 (750°C, 3 hours) <1 dB excess loss
 - Upgraded IEC 60331-25 (1000°C, 3 hours) <1.5 dB excess loss
 - BP-236
 - IEC 61034
 - IEC 60332-3 cat. A and C
 - IEC 60754-1
 - IEC 60754-2

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Fiber Type	9/125 ITU-T G652.D	50/125 OM2	62.5/125 OM1
Core Diameter	8.3 μm (typical)	50 ± 2.5 μm	62.5 ± 2.5 μm
Mode Field Diameter	1310 nm 9.0 ± 0.4 μm 1550 nm 10.1 ± 0.5 μm	n/a	n/a
Cladding Diameter	125 ± 0.7 μm	125 ± 1.0 μm	125 ± 1.0 μm
Primary Coating Diameter	242 ± 7 μm	242 ± 5 μm	242 ± 5 μm
Attenuation of Finished Cable			
850 nm	n/a	≤ 3.5 dB/km	≤ 3.0 dB/km
1300 nm	n/a	≤ 1.5 dB/km	≤ 1.0 dB/km
1310 nm	≤ 0.40 dB/km	n/a	n/a
1550 nm	≤ 0.30 dB/km	n/a	n/a
Bandwidth			
850 nm	n/a	> 500 MHz·km	>200 MHz·km
1300 nm	n/a	> 500 MHz·km	>500 MHz·km
Dispersion			
1285-1330 nm	< 3.0 ps/nm·km	n/a	n/a
1550 nm	< 18 ps/nm·km	n/a	n/a
Numerical Aperture	0.13 (typical)	0.200 ± 0.015	0.275 ± 0.015
Minimum Permanent			
Bending Diameter	25 mm	75 mm	75 mm

Other fiber types and qualities are available on request.

Ordering Information

Fiber Count	Single Mode Fiber	50/125 Fiber	62.5/125 Fiber
	Part Number	Part Number	Part Number
2	QFCI2-02R-010X	QFCI2-02R-50H	QFCI2-02R-62X
4	QFCI4-04-010X	QFCI4-04-50H	QFCI4-04-62X
6	QFCI6-06-010X	QFCI6-06-50H	QFCI6-06-62X
8	QFCI4-08-010X	QFCI4-08-50H	QFCI4-08-62X
10	QFCI2-10-010X	QFCI2-10-50H	QFCI2-10-62X
12	QFCI6-12-010X	QFCI6-12-50H	QFCI6-12-62X
16	QFCI4-16-010X	QFCI4-16-50H	QFCI4-16-62X
20	QFCI4-20-010X	QFCI4-20-50H	QFCI4-20-62X
24	QFCI6-24-010X	QFCI6-24-50H	QFCI6-24-62X
32	QFCI8-32-010X	QFCI8-32-50H	QFCI8-32-62X
40	QFCI8-40-010X	QFCI8-40-50H	QFCI8-40-62X
48	QFCI8-48-010X	QFCI8-48-50H	QFCI8-48-62X

Number of Fibers	Number of Fibers in Each Tube	Number of Tubes + Fillers	Loose Tube Diameter (mm)	Outer Diameter (mm)	Weight (kg/km)	Heat Release (MJ/km)
2	2	1+5	2.2	14.3	307	1,390
4	4	1+5	2.2	14.3	307	1,390
6	6	1+5	2.2	14.3	307	1,325
8	4	2+4	2.2	14.3	307	1,381
10	2	5+1	2.2	14.3	307	1,201
12	6	2+4	2.2	14.3	307	1,324
16	4	4+2	2.2	14.3	307	1,264
20	4	5+1	2.2	14.3	307	1,201
24	6	4+2	2.2	14.3	307	1,138
32	8	4+2	2.2	14.3	307	1,264
40	8	5+1	2.2	14.3	307	1,201
48	8	6+0	2.2	14.3	307	1,138

The data herein is approximate and subject to normal manufacturing tolerances. Other fiber counts are available on request.