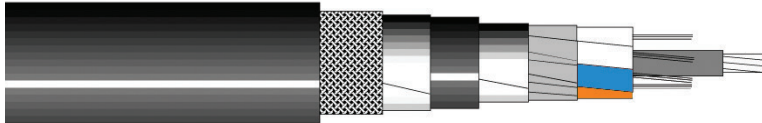


Lifeline® Specialty: Fire Resistant QFCI Cable

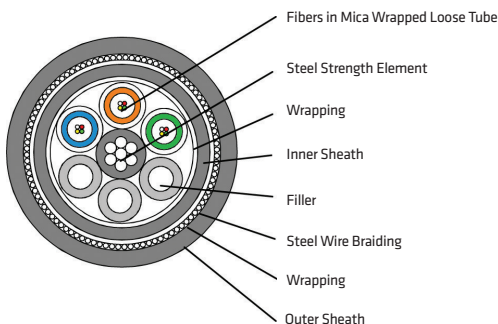
Fire Resistant, Flame Retardant Halogen-Free Loose Tube | UL Riser Rated



Applications

The first UL flame listed optical cable designed for indoor/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 LSZH jacketing material.

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 in addition to UL listings demonstrating compliance to NEC 770, NFPA 130 and NFPA 502.



Cable Properties

Listings to UL and CSA Standards

OFRC UL 1666 Riser
 OFCG IEEE 1202/FT4 General Use
 UL 1685 ST1 Limited Smoke Release
 NFPA 130 flame and smoke
 NFPA 502 flame and smoke

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 |
| IEC 61034 | |
| IEC 60332-3 cat. A and C | |
| IEC 60754-1 | |
| IEC 60754-2 | |

Tensile strength (IEC 60794-1-21, method E1)

| | |
|--------------------------------------|--------|
| Max tensile load during installation | 1500 N |
| Max tensile load during operation | 500 N |

Color Coding (TIA-598)

Crush (IEC 60794-1-21, method E3)

3000 N/10cm

Impact (IEC 60794-1-21, method E4)

20 impacts, 5J

Torsion (IEC 60794-1-21, method E7)

± 1 turn/1m

Cable bending

| | |
|---|------------------|
| Minimum Bending Diameter | 250 mm |
| Cable bend (IEC 60794-1-21, method E11) | < 0.1dB/ ±5 turn |

Temperature window

| | |
|--------------|----------------|
| Operation | -30°C to +60°C |
| Installation | -10°C to +60°C |
| Storage | -40°C to +70°C |

IDENTIFICATION:

"MADE IN USA DRAKA MA PN LIFELINE QFCI [Fiber Type Core/clad] LSFROH OPTICAL CABLE - [Fiber ISO Designation] TYPE OFRC FT4-ST1 90C c(UL)us E108843 [Batch No.] [month/year]"
 Plus sequential meter markings.

Prysmian Group

4 Tesseneer Drive | Highland Heights, KY 41076 | www.na.prysmiangroup.com

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Lifeline® Specialty: Fire Resistant QFCI Cable

Fire Resistant, Flame Retardant Halogen-Free Loose Tube | QFCI UL Riser Rated

| 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 | 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) |
|-------------|-------------------|---------------|----------------|------------------|-------------------------------|---------------------------|--------------------------|---------------------|----------------|----------------------|
| | Part Number | Part Number | Part Number | | | | | | | |
| 2 | QFCI2-02R-010X | QFCI2-02R-50H | QFCI2-02R-62X | 2 | 2 | 1+5 | 2.2 | 14.3 | 307 | 1390 |
| 4 | QFCI4-04-010X | QFCI4-04-50H | QFCI4-04-62X | 4 | 4 | 1+5 | 2.2 | 14.3 | 307 | 1390 |
| 6 | QFCI6-06-010X | QFCI6-06-50H | QFCI6-06-62X | 6 | 6 | 1+5 | 2.2 | 14.3 | 307 | 1325 |
| 8 | QFCI4-08-010X | QFCI4-08-50H | QFCI4-08-62X | 8 | 4 | 2+4 | 2.2 | 14.3 | 307 | 1381 |
| 10 | QFCI2-10-010X | QFCI2-10-50H | QFCI2-10-62X | 10 | 2 | 5+1 | 2.2 | 14.3 | 307 | 1201 |
| 12 | QFCI6-12-010X | QFCI6-12-50H | QFCI6-12-62X | 12 | 6 | 2+4 | 2.2 | 14.3 | 307 | 1324 |
| 16 | QFCI4-16-010X | QFCI4-16-50H | QFCI4-16-62X | 16 | 4 | 4+2 | 2.2 | 14.3 | 307 | 1264 |
| 20 | QFCI4-20-010X | QFCI4-20-50H | QFCI4-20-62X | 20 | 4 | 5+1 | 2.2 | 14.3 | 307 | 1201 |
| 24 | QFCI6-24-010X | QFCI6-24-50H | QFCI6-24-62X | 24 | 6 | 4+2 | 2.2 | 14.3 | 307 | 1138 |
| 32 | QFCI8-32-010X | QFCI8-32-50H | QFCI8-32-62X | 32 | 8 | 4+2 | 2.2 | 14.3 | 307 | 1264 |
| 40 | QFCI8-40-010X | QFCI8-40-50H | QFCI8-40-62X | 40 | 8 | 5+1 | 2.2 | 14.3 | 307 | 1201 |
| 48 | QFCI8-48-010X | QFCI8-48-50H | QFCI8-48-62X | 48 | 8 | 6+0 | 2.2 | 14.3 | 307 | 1138 |

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

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