

# Lifeline® QFCI Fire Resistant Fiber Optic Cable



Survivability in a Fire for Vital Communication and Emergency Systems



Lifeline® QFCI is 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.

It is the best and most cost effective solution for First Responder Radio Communication and Distributed Antenna System (DAS) cabling.

The cable is halogen free, flame retardant, and has a patented design that ensures operation for 3 hours in fires up to 1000C. It eliminates the need for fire rated shafts, structures or assemblies.

Prysmian Group offers the QFCI in Single Mode and Multi Mode (OM1, OM2, OM3, OM4) starting from 2 all the way to 48 fibers. Our cables are stocked at partner locations throughout North America.

## Specifications & Ratings

### Listings to UL and CSA Standards

- Canadian CSA C22.2 No 232-17
- UL 1651

### UL 1666 OFCR Riser - IEEE

- Cable classified by UL as Riser rated

### OFCC IEEE 1202/FT4 OFCC General Uses

- Cable is classified by UL as General Use

**Upgraded IEC 60331-25** (1000C for 3 hours)

**IEC 60331-25** (750C for 3 hours)

**UL 1685 ST1** for limited smoke release

**NFPA 130** for Flame and Smoke (when approved by AHJ)

**NFPA 502** for Flame and Smoke (when approved by AHJ)

**FAA Approved** for use in buildings and structures in airports

## Applications

- Healthcare Facilities
- High-Rise / Commercial / Public Buildings
- Educational Institutions / Dormitories
- Auditoriums / Stadiums / Museums
- Transit Tunnel
- Transit Stations
- Roadway Tunnels

**Tell Us About Your Project**  
Let us help you plan and execute your  
Fire Rated project.



**Scan to download documentation**

[na.prysmian.com/lifeline](http://na.prysmian.com/lifeline)  
[na.lifeline@prysmian.com](mailto:na.lifeline@prysmian.com)

# Lifeline® QFCI Fire Resistant Fiber Optic Cable

Survivability in a Fire for Vital Communication and Emergency Systems



## Regulators & Regulations

### National Fire Protection Agency (NFPA)

The NFPA is the world's leading advocate of fire prevention and an authoritative source on public safety.

### NFPA 72

The National Fire Alarm and Signaling Code requires first responders radio coverage to utilize fire-resistive cables or structures to ensure communication systems integrity. A 2-hour fire-resistive rating is required.

### Authority Having Jurisdiction (AHJ)

The AHJ is the person or office charged with enforcing the Life Safety Code. In many states the AHJ are the state fire marshals who have local inspectors work on their behalf. For some occupancies, there is more than one AHJ.

If you're unsure who the AHJ is, contact your state Fire Marshal. Note that each AHJ's approval must be secured before proceeding.

## What the Code Says

**NFPA 72** (National Fire Alarm and Signaling Code) requires the use of a public safety distributed antenna system (DAS) strictly for use by first responders. As a result, public safety DAS are installed to enable first responders within the building to communicate during an emergency. Additionally, public safety DAS must also have a backup in case of an outage.

Public safety DAS are required to be on a different spectrum than commercial wireless systems and must cover the entire building. This includes areas that are used for emergency service, such as escape areas, exits, elevator areas, lobbies, stairwells and all other areas seen as critical by the authorities.

## Frequently Asked Questions

### Is Lifeline QFCI UL / CSA listed?

Yes, Lifeline QFCI is fully UL listed as General Use Fiber (OFCG) and Riser Rated (OFCR). It's also listed to UL 1685 ST1 for limited smoke release. However, it is not UL listed under UL 2196 for a Fire Resistant Fiber Optic Cable.

### What fire rated fiber cables are listed under UL 2196?

No fiber cables are listed under UL 2196. The standard was developed for electrical systems and the fire hose portion of the test compromises the integrity of the fiber glass, preventing the systems from achieving passing results. As a consequence, no manufacturer has achieved fire rated listed fiber optic cables available to the market.

### If it is not UL 2196 listed, how is the Lifeline QFCI Fire Rated?

The Lifeline QFCI fire rated cable is classified and tested under IEC-60331-25, which is the International Standard covering Fiber Communication cables. This is the standard most commonly used through most of the world and is trusted to ensure continuity of critical communications in emergency fire events.

### What are the main differences between UL 2196 and the upgraded IEC-60331-25?

UL 2196 requires a temperature of 1010C for 2 hours and a hose stream test, while the upgraded IEC-60331-25 requires a temperature of 1000C for 3 hours and a water migration test. The minor differences in testing have allowed for the IEC standard to be widely adopted in North America in lieu of the UL 2196 standard, where no available product exists. As with any emergency or critical system development, Prysmian Group recommends Authority Having Jurisdiction (AHJ) approval prior to installation.

