Standard 24-core flame-retardant optical cable

Overview

Unitube Fire-Survival cables offer up to 24 fibers in a compact cable construction. Cables are specially designed to withstand the strict flammability tests of IEC 60331-25.

Key Takeaways

Flame-retardant 24-core optical cables are available in both singlemode and multimode variants, featuring fire-resistant and armored constructions suitable for indoor and outdoor installations.

Key Features and Specifications

Fiber Types: Available in OM1, OM3, OM4 multimode and OS2 singlemode configurations, supporting high-speed data transmission over long distances (Draka FireTuf, Webro). Core Count: 24-core options are standard, with loose tube or stranded loose tube constructions for flexibility and fiber protection. Fire Resistance: Compliant with IEC 60331-25 for fire resistance and IEC 60332-2-3-24C for flame retardancy, ensuring circuit integrity during fire events.

Sheath Material: Options include LSZH (Low Smoke Zero Halogen) for indoor use and flame-retardant PE for outdoor or direct burial applications. Mechanical Protection: Armored variants feature steel tape armor or double sheaths for crush resistance, rodent protection, and durability in harsh environments. Waterproofing: Many cables include water-blocking materials and filled loose tubes to prevent moisture ingress, suitable for tunnels, metro lines, and outdoor deployments.

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Bend Insensitivity: Some multimode cables incorporate MaxCap BendBright™ technology, allowing tight bends without signal loss.

Typical Applications

Life Safety Systems: Fire alarms, voice evacuation systems, and emergency communication networks. Public Infrastructure: Metro lines, tunnels, and public buildings where continuous operation during fire is critical. Telecom and Data Backbones: Long-haul fiber optic networks, broadband, campus networks, and outdoor installations requiring high durability and fire safety.

Installation Considerations

Indoor vs Outdoor: LSZH jackets are preferred indoors for low smoke emission, while PE jackets with armor are suitable for outdoor, aerial, or direct burial installations. Environmental Resistance: Armored and water-blocked designs protect against mechanical stress, rodents, UV exposure, and moisture. Compliance: Ensure the selected cable meets local fire safety codes and international standards for flame retardancy and fire resistance.

Flame-retardant 24-core optical cables provide a robust, fire-safe solution for high-speed data transmission in critical infrastructure, combining mechanical protection, fire compliance, and long-term reliability.

Article Content

Draka FT Fire Resistant Fibre Optic Armoured

FireTuf fibre optic cables are manufactured by Prysmian Draka. Offered in OM1, OM3 and OM4 multimode and OS2 singlemode, in 4, 8, 12 or 24 core fibre

Opti-Core Fibre Optic Indoor-Outdoor 4 Fibre Cable ...

This cable has flame retardant and LSZH properties and is ideal for indoor installations The cable is water-blocked and well suited for installation in ducts and on trays indoors and limited outdoor use in

Unitube Fire-Survival Cables

Unitube Fire-Survival cables offer up to 24 fibers in a compact cable construction. Cables are specially designed to withstand the strict flammability tests of IEC 60331-25.

024T8P-31190-A3 | FREEDM® One Tight-Buffered,

Encased in a spirally wrapped, aluminum interlocking armor for ruggedness and superior crush resistance, these cables are ideal for industrial and heavy traffic

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Fiber Optic Cables

Indoor and outdoor, flame retardant, LSZH or PVC, loose tube, Armored SWA (Steel wires Armor), SWB (Steel wires Braid) or CST (Coarrugated Steel Tape).

Fiber Optic Cables

Armoured and Flame retardant optical fibre cable, AICI - code F104 NEK TS 606:2016 (available also in MUD protected version).

Fiber Optic Cable OM4 Loose Tube 24 Cores

The Legrand Indoor/Outdoor fiber optic cable is easy to handle and resilient to hardships. It can be used for LAN and WAN backbones. It is equally suited for

HAILE 24 Core flame retardant heavy armor buried fiber optic cable ...

This 24-core fiber optic cable from HAILE combines advanced flame retardant materials with a heavy armored design to withstand harsh outdoor conditions, including physical impact and fire hazards.

Fiber Optic Cables

APPLICATION Optical cable for indoor and outdoor use in vital communication and emergency systems that need to be operational during fire. The cable has a design that ensures operation for more than

Fiber Optic Cable OM4 Loose Tube 24 Cores Indoor/Outdoor LSZH

The Legrand Indoor/Outdoor fiber optic cable is easy to handle and resilient to hardships. It can be used for LAN and WAN backbones. It is equally suited for installation in ducts and on trays. It has an

Fiber Optic Cable Jackets and Fire Ratings Explained

Learn about fiber optic cable jackets, materials, and fire ratings. Find the right jacket for plenum, riser, or general-purpose environments.

Indoor Fiber Optic Cables | Flame Retardant Indoor Cable Products

Corning indoor fiber optic cables are used in spaces that require a flame retardant jacket. These cables may be deployed in duct (conduit) or cable tray.

FibreFab-Fibre-Optic-Cable-Catalogue

FibreFab Established in 1992, FibreFab is a leading provider of fibre optic connectivity products used in data communications and Telecommunication networks. The Company designs, develops,

Marine and Offshore Cables

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When most standard cables are subjected to flames, the basic effects are no different to any other products manufactured of similar materials. Generally the following happens: The flames will

Opti-Core Fibre Optic Indoor-Outdoor 4 Fibre Cable ...

SPECIFICATIONS The fibre cable shall contain up to 24 fibres and have an all-dielectric loose tube construction. It shall be suitable for indoor applications, complying with IEC standards for low smoke /

NEK 606 Standard Offshore & Marine Cables

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.

Opti-Core® LSZH Indoor-Outdoor All-Dielectric Fiber Optic Cable

The fiber cable shall have a loose tube, all-dielectric (non-conductive) construction with 6, 12, 24 or 48 fibers and comply with common industry standards for indoor and outdoor applications. To withstand

Fiber Optic Cable: Jacket & Fire Rating

This article examines fiber optic cable jackets, materials like LSZH, and fire ratings such as plenum and riser. It defines what comprises a cable and compares rating levels and jacket types.

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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