Flame-retardant installation solution for Swedish optical cable clamps

Overview

Functional, safe and effective optical communication HUBER+SUHNER has in-depth expertise to design and manufacture fiber optic cables and perform fire test.

Key Takeaways

Use FRNC/LSZH fiber optic cables with flame-retardant coatings like Flamastic KBS COATING™, mounted securely with proper spacing and compliant clamps to ensure fire safety and mechanical stability.

Cable Selection

For Swedish installations, select fiber optic cables with high flame-retardant performance, such as FRNC (Flame Retardant Non-Corrosive) or LSZH (Low Smoke Zero Halogen) jackets. These cables prevent fire propagation and reduce toxic smoke emissions in case of fire, meeting European CPR standards like B2ca or FE180 for fire resistance. For critical infrastructure, consider fire-resistant cables with continuous data transmission capability, ensuring operational integrity during fire events.

Flame-

Retardant Coatings

For additional protection, KBS CABLE PROTECTION™ with Flamastic KBS COATING™ can be applied to optical cables. This ablative, endothermic coating consumes energy during fire exposure, cools the cable surface, and chemically interrupts the fire chain reaction. It is suitable for both new installations and upgrading existing cable trays or conduits.

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Application is straightforward using spray or brush methods, with a recommended thickness of approximately 1. 5 mm.

Installation Guidelines

Clamp spacing: Secure cables every 1 to 1. 5 meters to prevent sagging and lateral movement, which can compromise fire performance. Mounting height: Maintain a small distance from the ceiling, typically 5–50 cm, to optimize fire detection and minimize heat exposure.

Avoid over-tightening: Clamps should hold cables firmly without compressing the jacket, preserving both mechanical integrity and flame-retardant properties. Cable marking: Use meter markings to define alarm zones and ensure compliance with fire safety regulations. Environmental considerations: Ensure cables are compatible with temperature extremes, humidity, and potential chemical exposure in the installation environment.

Additional Considerations

Mechanical protection: For high-risk areas, consider reinforced plastic (FRP) armoring to provide rodent protection and flexibility while maintaining a low bending radius. Compliance: Verify that all cables and coatings meet Swedish and EU fire safety standards, including CPR classifications and EN/IEC fire tests. Critical systems: For emergency or redundant systems, flame-retardant coatings help maintain circuit integrity and provide additional time for fire response.

By combining high-performance FRNC/LSZH cables, ablative flame-retardant coatings, and proper clamp installation, Swedish optical cable networks can achieve maximum fire safety, mechanical stability, and regulatory compliance.

Article Content

Cable installations

According to Swedish standards SS 421 01 101 High voltage installations with nominal voltages of over 1kV AC and SS 436 40 00 Electrical installation regu-lations, the risk of fire spreading is reduced by

CELO Fire approved fixings | Fire resistance

Designing and manufacturing fire approved fixings aligned with the latest requirements, CELO empowers electricians with the right solutions to achieve this goal.

IEC 60332 Flame Retardant Cable Best Standards

By defining reproducible burner rigs, exposure times and char-height limits for both single and bunched cables, it lets engineers everywhere—from hospital

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KBS – Cable Fire Protection and Penetration Sealing | Wolman

KBS ® Pipe Seal M collars effectively ensure protection against the passage of fire and smoke in the event of fire. This fire stopping solution ensures that flames and smoke gases cannot spread to the

Fire protection for cables & cable trays | Flamro

The mostly combustible cable sheaths and insulation allow a fire to spread along the cable at rapid speed. Our tested solutions for cable fire protection can delay the

Ultimate Guide to Fire Retardant Cable Management: Ensure Safety ...

This comprehensive guide will delve into the essentials of fire retardant cable management, exploring its importance, key components, installation techniques, and maintenance

Development of flame retardant and fire-resistant optical cable based ...

In the paper, we try our best to develop a kind of flame retardant & fire-resistant cable with excellent comprehensive performance, which can give full play to the performance of a variety of materials to

Cable Cleats made from V0 Flame-Retardant Polymer

Our V0 cable cleats are compact, stackable and offer a wide range of mounting options, giving you more installation flexibility. We also provide strut nut mounting versions which are pre-assembled to avoid

Fire resistant/survival cables

APAR offers 2F to 512 F optical fibre cables, in armoured and unarmoured designs. The cable ensures operation for 3 hours in fires up to 750ºC. The cable is halogen-free and flame retardant, to protect

Fire Resistant Fiber Optic Cables CPR B2ca | ETK Kablo

Which fibre is resistant to fire? The glass optical fibre itself is non-flammable; what determines fire behaviour is the cable construction (insulation, sheath, fillers). For fire-critical areas, choose fire

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.

Types and characteristics of flame-retardant optical cables

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The basic material of the low-halogen low-smoke flame-retardant optical cable is polyvinyl chloride, and it is processed with high-efficiency flame retardants, hydrogen chloride

Development of flame retardant and fire-resistant optical cable based ...

Light transmittance of flame retardant and fire-resistant optical fiber cable is more than 68% according to IEC61034. According to IEC60331-11/25, maximum change in attenuation of optical fibers is 0.16dB

ChimeraX™ Fully Dry Design SWA Fire Resistant Cable

Hermesys ChimeraX™ series SWA Fire Resistant Cable is a steel wire armored (SWA) fiber optic cable designed for fire-resistant and high-durability applications. It features 4, 12, 24,48,72,96,144cores of

Fire behaviour and construction safety precautions for

Cable tray type, ducts and conduits Although the type of cable and conductor is the determining factor in the fire behaviour of ducts and conduits,

Alibaba : PA66 Fireproof Flame Retardant Nylon Cable Clamps,

Secure Cable Management: Designed to securely clamp and organize medium to high-voltage cables (23-230mm diameter) with a C-shaped profile, ensuring stable fixation in demanding environments.

ADDISON flame Retardant Tight buffered Distribution fiber opti

flame Retardant central loose Tube fiber optic cables aPPIIcaTIon lation. They are mainly installed inside buildings, tunnels,subways or closed areas in general, specially designed to guarantee the signal

Draka FireTuf Fire Resistant Fibre Optic Cable

A key feature of the Draka Firetuf OM3 & OM4 fibre cables is the bend-insensitive MaxCap BendBright™ technology. This allows for microbending to tight bends or placing the cable under

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