

Core Weather-resistant Long-span Butterfly-shaped Optical Cable



AI Overview

A core weather-resistant long-span butterfly-shaped optical cable is a flat, self-supporting fiber optic cable designed for aerial and last-mile FTTH deployments, combining high tensile strength, environmental durability, and ease of installation.

Structural Design Butterfly-shaped optical cables feature a flat profile with optical fibers positioned at the center and reinforced by parallel strength members on both sides, often made of FRP (fiber-reinforced plastic) or steel wire for high tensile performance. This design reduces bending stress, prevents twisting, and simplifies routing along walls, corners, and conduits. Some variants include an additional stranded steel wire for enhanced tensile support, particularly in long-span aerial installations. The cable is typically encased in a protective sheath, often LSZH (low-smoke zero-halogen) for indoor safety or UV-resistant PE for outdoor use, providing flame retardancy, water resistance, and weather durability. The sheath protects the fibers from mechanical damage, moisture, and environmental stress.

Fiber and Core Options These cables are available in 1-core, 2-core, 4-core, or higher fiber counts, with single-mode fibers such as G.657A1 or G.657A2 for superior bend resistance. For larger fiber counts, designs may use 12 or 24 fibers per tube to reduce environmental load and maintain performance over long spans.

Performance and Applications

- Long-span capability:** Suitable for aerial deployment over distances up to 800 meters (2,600 feet) without intermediate support.
- Self-supporting:** Can be installed on utility poles or building exteriors without additional support structures.
- Weather-resistant:** Designed to withstand UV exposure, rain, wind, and temperature variations, ensuring reliable long-term performance.
- Indoor/outdoor versatility:** Flat butterfly design allows use in both indoor FTTH drop installations and outdoor aerial...

Article Content

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The butterfly introducing optical cable and the manufacturing technique thereof of the invention have the advantages of having long service life, being high in production efficiency and being good in

GJYXFHS Pipeline Butterfly-shaped Introduction Optical

Further reinforced with a steel tape moisture-proof layer and a durable PE outer sheath, this cable delivers superior moisture resistance, UV protection, and

Butterfly Indoor FTTH Drop Cable

Butterfly FTTH drop cable incorporates the indoor soft cable and the self-supporting cable characteristics. The FTTH drop cable is ideal to use in the FTTx network,

GL FIBER 24 Core ADSS Fiber Optic Cable, G652D,

GL FIBER" ADSS cables offer a rapid and economical means for deploying optical fiber cables along existing aerial rights-of-way.

24 Core Outdoor Cable Fiber Optic 100m Span Self

The tubes are filled with a water-resistant filling compound. The tubes (and fillers) are stranded around a FRP (Fiber Reinforced Plastic) as a non-metallic central

Product Spec Sheet 144TN4-T4S31A20

While the concentric, self-supporting cable design allows easy, one-step installation using standard hardware and installation methods, the SZ-stranded, loose tube design isolates optical

LSZH Fiber Optic Cable

GJXH LSZH Fiber Optic Cable features low smoke zero halogen jacket, steel butterfly protection, G.657A1 fiber, and high mechanical strength for safe, reliable

GJYXFC Self-Supporting Drop Cable | FTTH / FTTB

Ideal for use in both indoor environments and short outdoor spans, especially for

Bojan Butterfly Fiber Optic Cable BY-PX1802 Black Outdoor Self ...

This self-supporting butterfly cable combines 2 single-mode cores in a rugged black jacket, reinforced with 3 steel wires to provide exceptional tensile strength and resistance to mechanical stress.

All Dielectric Self Supporting Optical Fiber Cable

Span: 50-1500m Brand:OEM Fiber counts is available up to 288 fibers,JIANYE ensures a stable quality control system for our cable products through several

ADSS Fiber Optic Cable | All-Dielectric Self-Supporting

AFL-ADSS ® (All-Dielectric Self-Supporting) fiber optic cable is designed for outside plant aerial transmission and distribution environments. As its name indicates,

CN214895950U

The utility model relates to the technical field of optical cable manufacturing, in particular to a large-span strong tensile-resistant butterfly optical cable; There are grooves on both sides, and the bottoms of

Pipeline Butterfly-shaped Introduction Optical Cable □GJYXFHS□

For conduit entry of optical cables, the butterfly introduction places the communication unit at the center, with two parallel non-metallic strength members (FRP) placed on both sides.

Bojan Butterfly Fiber Optic Cable BY-PX1802 Black Outdoor Self ...

Specifications: Category: Outdoor fiber optic cables About This Item This self-supporting butterfly cable combines 2 single-mode cores in a rugged black jacket, reinforced with 3 steel wires to provide

Outdoor Single Mode Butterfly Fiber Optic Cable

Although it is said that outdoor single-mode butterfly fiber optic cable is widely used for long-distance transmission in integrated wiring, not many people have a deep understanding of its

Butterfly cables, Butterfly fiber optic cables

Butterfly Fiber optic cables are specifically designed for use in indoor environments, often in confined spaces such as inside buildings or data centers. They are

1/2/4F Self-supporting Butterfly Drop Cable Black

Self-supporting Butterfly Drop Cable with central fiber core and dual strength members. Ideal for FTTH, aerial/duct installations, and harsh environments.

Yuhong Fiber Optic Cable – Butterfly Internet Cable for LS0H Networks

This makes Yuhong's Butterfly Fiber Optic Cable a practical choice for modern smart buildings, supporting high-speed data, voice, and video transmission without compromising on safety or

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A large-span, strong tensile-resistant butterfly optical cable comprises an optical fiber and a protective sleeve. The number of the optical fibers is two, and the two optical fibers are...

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

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The utility model relates to the technical field of optical cable manufacturing, in particular to a large-span, strong tensile-resistant butterfly optical cable.

Long Span ADSS Cable | Prysmian

Each Long Span ADSS cable is custom-engineered for optimal placement on utility towers and to operate under full weather loads, ensuring safe, reliable, long-term performance. For installation on

How do FTTH butterfly optic cables handle mechanical stress and how ...

Among the various designs available, FTTH butterfly optic cables stand out for their unique construction and remarkable resilience to mechanical stress. However, understanding how

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The invention relates to the technical field of optical fiber communication, in particular to a butterfly-shaped optical cable with an anti-deformation structure.

Ultra-Bend-Resistant 4-Core Simplex Cable Used for

We optimized and fabricated an ultra-bend-resistant 4-core simplex cable (SXC) employing 4-core multicore fiber (MCF) suitable for short-reach

Butterfly Lead-in Fiber Optic Cable

Butterfly Lead-in Fiber Optic Cable, Find Details and Price about Optical Cable Optical Fiber from Butterfly Lead-in Fiber Optic Cable - Hangzhou Jinlong Optic

Butterfly -shaped optical fiber optical cable

Butterfly-shaped optical fiber cables are a popular type of fiber optic cable that is commonly used for data transmission in telecommunication

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The invention belongs to the technical field of cable production, and particularly relates to a special lead-antimony alloy for a large-span tensile butterfly-shaped optical cable.

Global Self-Supporting Butterfly Optical Fibre Cable Market 2026

The Self-Supporting Butterfly Optical Fibre Cable Market was valued at USD 945.5 Million in 2025 and is projected to reach USD 1.56 Billion by 2032, growing at a CAGR of 7.4%.

Contact Us

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