

Self-supporting butterfly optical cable 2 cores

Article Overview

A 2-core self-supporting butterfly optical cable features a central bend-insensitive single-mode fiber, flanked by parallel strength members, with a low-smoke, halogen-free sheath suitable for both indoor and aerial outdoor FTTH deployment.

Structure and Design

The cable has a flat, wing-shaped (butterfly) cross-section, with the optical fiber positioned in the center and two parallel strength members on either side. For self-supporting outdoor versions, these strength members can be steel wires or non-metallic FRP (Fiber Reinforced Plastic), allowing the cable to span aerial distances without additional support. The outer sheath is typically LSZH (Low Smoke Zero Halogen) or PE for UV and moisture resistance, providing flame retardancy and environmental protection.

Fiber Type

Most 2-core butterfly cables use bend-insensitive single-mode fiber, conforming to ITU-T G.657 standards. G.657.A1 fibers tolerate small bend radii (~10 mm), while G.657.A2 fibers are suitable for tighter bends in conduit or irregular surfaces, making them ideal for FTTH drop applications. This ensures minimal signal loss even in tight indoor routing.

Key Features

- o Small diameter and lightweight, simplifying installation in residential or commercial buildings.
- o High flexibility and small bending radius, suitable for indoor wiring and complex routing.
- o Good compressive, tensile, and anti-aging properties, ensuring durability over time.
- o Bow-type or '8' groove design for easy sheath peeling and maintenance.
- o Self-supporting aerial capability for outdoor deployment up to 50 meters without additional support.

Applications

- o FTTH networks: from distribution boxes to subscriber terminals.
- o Indoor wiring: apartments, residential areas, and office buildings.
- o Outdoor aerial drops: connecting poles to building entry points.
- o Old area reconstruction or areas with limited conduit space.

Installation Considerations

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- o Maintain the flat plane orientation during bends to minimize stress on the fiber core .
- o Avoid bending edge-on, which requires more force and could damage the fiber.
- o For mixed indoor/outdoor runs, either use a dual-rated cable or terminate outdoor sections at wall entry points to splice with indoor drops .

Summary

A 2-core self-supporting butterfly optical cable combines bend-insensitive G.657 fiber, parallel FRP or steel strength members, and a flame-retardant LSZH or PE sheath, making it ideal for FTTH indoor and aerial outdoor applications. Its design ensures easy installation, durability, and minimal signal loss, even in tight bends or complex routing environments .

Butterfly FTTH drop cable is a popular type of fiber access optical cable, according to the different application environment and laying

Ftth Home Fiber Optic Cable Self-Supporting Outdoor 2-Core Fiber Optic Cable Butterfly-Shaped Dual-Core Single-Mode 3 Steel

Fasten has both butterfly drop cable and self-supporting butterfly drop cable. The cable weight ranges from 12 to 28 kg/km.

It's an indoor optical cable specially developed for FTTH (Fiber to the Home). 2 fiber core is in the center of

DESCRIPTION (GJYXFCH) Indoor/Outdoor self-supporting butterfly drop cable, the optical fiber unit is positioned in the center. two

The Self-Supporting Butterfly Optical Fibre Cable Market was valued at USD 945.5 Million in 2025 and is projected to

We are Cable manufacture and supplier, provide Self-Supporting Butterfly Lead-in Optical Fiber Cable Self-Supporting Butterfly Drop

FTTH Self-Supporting Outdoor Butterfly Optical Cable (Galvanized Steel Strand) Gjyxch 2 Core G657A1 Fiber Optic Cable

FTTH cables are ideal for indoor cabling, end users directly cabling, and access network. The optical fiber

The outdoordrop cable has a self-supporting hanging wire in a figure-8 shape. The drop cable is generally

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divided into 1 core, 2 cores

SOLO®; ADSS Cable, 72-Fibers Corning SOLO®; cables are all-dielectric, self-supporting (ADSS) cables designed for

An object of the utility model is to provide a parallel two-core self-supporting butterfly-shaped optical cable to solve the problem that

Outdoor Self-supporting Single-mode Drop Cable, engineered for aerial FTTH deployment. This durable 2

The butterfly optical cable is the novel user access optical cable which combines the characteristics of the indoor soft optical cable

We can produce optical fiber connector 2 million units, optical cable twenty thousand cores/km, and other distribution products two

Access detailed insights on the Self-Supporting Butterfly Optical Fibre Cable Market, forecasted to rise from USD 1.25 billion in 2024

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