

Article Overview

A self-supporting single-butterfly drop optical cable is a lightweight, bend-insensitive fiber optic cable designed for FTTH/FTTx applications, capable of aerial or indoor deployment without additional support.

Structure and Design

Self-supporting butterfly drop cables feature a butterfly-shaped cross-section, where the optical fiber is centrally located between two parallel FRP (Fiber Reinforced Plastic) strength members. Outdoor variants add a steel messenger wire or a single steel strength member to enable self-supporting aerial installation over spans up to 50 meters . The cable is typically sheathed in LSZH (Low Smoke Zero Halogen) flame-retardant material, providing safety and environmental compliance . The design is lightweight, flexible, and allows easy stripping and splicing for installation and maintenance .

Fiber Types and Performance

These cables generally use bend-insensitive single-mode fibers, compliant with ITU-T G.657 standards. Indoor deployments often use G.657.A1 fibers, tolerating 10 mm bend radii, while outdoor or conduit installations may use G.657.A2 fibers, which handle tighter bends and irregular surfaces . Fiber cores typically range from 1 to 12, with common outdoor single-butterfly drop cables offering 1, 2, or 4 cores . The fibers provide high bandwidth, low attenuation, and excellent transmission performance, even in tight bends or complex routing .

Applications

- o FTTH (Fiber to the Home): Connects outdoor distribution points to residential homes, supporting high-speed broadband services .
- o FTTB (Fiber to the Building): Provides reliable optical connections within commercial or multi-tenant buildings .
- o Indoor Deployment: Suitable for vertical shafts, concealed pipes, cable trays, walls, and risers .
- o Outdoor Deployment: Self-supporting design allows aerial installation without additional support, ideal for short spans from utility poles to buildings .

Advantages

- o Self-supporting: Can span short distances without external support.
- o Flexible and lightweight: Simplifies installation in tight spaces.
- o Bend-insensitive fibers: Maintain performance in sharp bends.



Self-supporting single-butterfly drop optical cable

- o Flame-retardant LSZH sheath: Safe for indoor and outdoor use.
- o Easy termination: Compatible with pre-terminated connectors or on-site splicing .

Summary

Self-supporting single-butterfly drop optical cables are versatile, safe, and high-performance solutions for modern fiber access networks. Their combination of robust strength members, bend-insensitive fibers, and LSZH sheathing makes them suitable for both indoor and outdoor FTTH/FTTx deployments, providing reliable connectivity from distribution points to end users .

There is no support or messenger wire required, allowing installation to be achieved in a single pass, dramatically reducing

Drop cables are the critical connection between a service provider's distribution network and the end user's

Self-Supporting Butterfly Drop Cable It is mainly used as a fiber to the home (FTTH) and other fiber optic

This cable provides a self-supporting design for ease of installation and is specifically engineered to deliver excellent

Self-supporting fiber optical drop cable 8 cores 1. Good mechanical and environmental characteristics; 2. Flame retardant

The LF-087 GJYXCH series is a high-performance butterfly-type drop fiber optic cable designed for FTTH access. Featuring

Outdoor Self-Supporting Single-Mode Single-Core Butterfly Drop Cable, Find Details and Price about Cable Fiber Optic Cable from

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

The large-scale use of FTTH Fiber Optic Drop Cable in FTTX projects mainly uses two splicing methods:

It can be used for laying in indoor environments such as vertical shafts, concealed pipes, cable trays, walls,

It is mainly used as a fiber to the home (FTTH) and other fiber optic access (FTTx) network user introduction segment cabling cable



Self-supporting single-butterfly drop optical cable

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

1 FTTH Outdoor Aerial Cable Central loose tube cables and self-supporting FTTH drop cables are designed for outdoor aerial

1core G652D/G657A1/G657A2 FRP Gjxh Butterfly Drop Cable Self-Supporting Outdoor Optical Drop

2?Description (GJYXFCH) Indoor/Outdoor self-supporting butterfly drop cable, the optical fiber unit is positioned in the centre. two

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