

Article Overview

Fiber optic cable reels are engineered for secure storage, transport, and deployment of optical cables, with specifications tailored to cable type, length, and environmental conditions.

Key Specifications

Dimensions and Capacity: Cable reels are defined by three primary dimensions: flange diameter, traverse (barrel) width, and core diameter, which determine the maximum cable length and gross weight the reel can handle . Typical diameters range from 3 inches to 96 inches, accommodating short distribution runs to long backbone installations . The minimum bend radius of the cable must be respected to prevent optical loss; for example, a 6-fiber OM4 cable with a 6 mm outer diameter requires a static bend radius of at least 120 mm .

Materials: Reels are manufactured from wood, metal, or heavy-duty plastic (ABS, PC). Wood offers traditional durability and NEMA compliance, while plastic provides moisture resistance and color options. Metal reels, often sheet metal, are used for rugged environments and can withstand extreme temperatures from -40 °C to +70 °C .

Cable Compatibility: Reels support single-mode (OS2) and multimode (OM3, OM4, OM5) fibers, as well as tactical and industrial fiber cables. Single-mode OS2 is preferred for long outside-plant runs due to low attenuation (0.4 dB/km at 1310/1550 nm), while multimode fibers are used in shorter data center links .

Portability and Deployment: Some reels, like the BX-05 Portable Industrial Metal Reel, feature wheels, retractable handles, and ergonomic winding mechanisms for field deployment of 100-1500 meters of cable . Lightweight models, such as Micropol's R-105 (~3.5 kg without cable), are optimized for fast deployment in live events, military, or outdoor installations .

Environmental and Operational Considerations: Reels are designed for harsh conditions, including dust, moisture, and mechanical stress. Features like rotation brakes, auxiliary spools, and secure locking mechanisms ensure safe handling and prevent cable damage during transport and deployment . ABS and PC reels are suitable for communication, broadcast, and pro audio applications, offering storage efficiency and rapid deployment .

Common Models

- o **Wooden Reels:** Traditional nailed or ready-to-assemble units, customizable with company logos, suitable for shipping and storage .
- o **Plastic ABS/PC Reels:** Lightweight, moisture-resistant, and customizable for branding or color coding .
- o **Metal Industrial Reels:** Rugged, portable, and suitable for field operations, emergency response, and outdoor installations, e.g., BX-05 and Micropol R-105 .

Applications

- o **Data Centers:** Smaller reels for in-rack or inter-row cabling; medium/large reels for backbone trunks .

Complete Specifications of Communication Optical Cable Reels

- o Field Deployments: Portable reels for emergency response, military, broadcast, and outdoor fiber installations .
- o Events and Live Broadcasts: Lightweight, fast-deployable reels for concerts, sporting events, and live productions .
- o Industrial and Harsh Environments: Metal or sheet metal reels for excavation, construction, and extreme temperature conditions . Fiber optic cable reels are critical for maintaining cable integrity, ensuring compliance with standards like TIA-568.2-D, ANSI/TIA-942-B, and ISO/IEC 11801:2017, and optimizing deployment efficiency across diverse applications .

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We offer both portable and stationary electric cable reels for studio and mobile units for communication
industries such as broadcast

reel in a reels of fiber optic cable in all inside plant applications, such as collocation data centers and wireless
projects. This

Cable reels are used for storage, unwinding, and winding of conductive cable or lifting cable. Electric cable
reels have contacts for

Its portable design, often including wheels and a retractable handle, allows for easy transportation across

Complete Specifications of Communication Optical Cable Reels

Fiber optic cables have taken the position as the major transport medium in modern high-speed communication

General .1 . This procedure provides general information for installing all Corning Optical Communications Solo® ADSS All-Dielectric

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The fiber optic cable reel is designed to protect and organize the fiber optic cable during

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