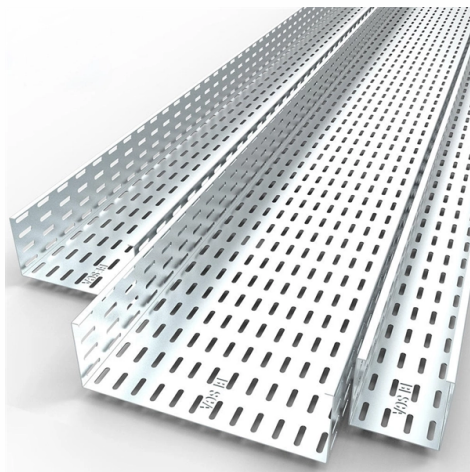


Fiber Optic Cable Line Type Classification and Price Table



Overview

With this table, you can compare the most common fiber optic cable types, including OS1, OS2, OM1, OM2, OM3, OM4 and OM5.

Key Takeaways

Fiber optic cables are classified by fiber type, construction, and application, with prices ranging from \$0.05 to \$6 per foot depending on specifications and installation requirements. Fiber Optic Cable Classification

1. Fiber Type

- Single-Mode Fiber (SMF, OS1/OS2): Small core ($\sim 9\text{ }\mu\text{m}$), supports long-distance, high-speed transmission, commonly used in campus backbones, metropolitan, and long-haul networks .

- Multimode Fiber (MMF, OM3/OM4): Larger core ($50\text{--}62.5\text{ }\mu\text{m}$), supports multiple light modes, ideal for short-reach applications like data centers .

2. Cable Construction

- Tight-Buffered: Indoor use, easier to terminate, suitable for patch cords and riser applications .

- Loose-Tube: Outdoor or long-distance use, protects fibers from environmental stress, often gel-filled for moisture resistance .

- Armored: Extra protection for harsh environments or direct burial, adds 20-50% to cost .
 - Non-Armored: Standard indoor or aerial applications, lower cost .
- ### 3. Jacket Material and Environmental Rating
- Indoor: PVC or LSZH jackets, cost-effective, flame-retardant for riser or plenum spaces .
 - Outdoor: PE or UV-resistant jackets, suitable for aerial, direct-burial, or wet environments .
 - Direct-Buried: Requires additional testing and compliance, higher material and installation costs .
- ### 4. Fiber Count

- Common counts: 2, 12, 24, 48, 96, 288 strands. Higher fiber counts increase cost proportionally .

Price Table (Indicative)	Cable Type	Fiber Count	Construction	Environment	Price per Foot	Notes
	Single-mode OS1	12	Tight-buffered	Indoor	\$0.10-\$0.50	Short-distance, low-cost backbone
	Single-mode OS2	12-24	Loose-tube	Outdoor	\$0.30-\$1.00	Long-distance, high durability
	Multimode OM3	12-24	Tight-buffered	Indoor	\$0.30-\$1.00	Data center, short-reach
	Multimode OM4	24-48	Armored	Indoor/Outdoor	\$0.50-\$2.00	High-speed, high-density applications
	Armored Single-mode	24-48	Loose-tube	Outdoor/Direct-burial	\$0.50-\$5.00	Harsh environment, trenching required
	High-count Backbone	96-288	Loose-tube	Outdoor	\$1.00-\$6.00	Campus or metropolitan backbone

Installation Cost Examples

- Basic Indoor Run (1,000 ft, single-mode): Cable \$0.40/ft, Labor \$1.00/ft, Permits \$150, Accessories \$100. Total $\approx$ \$2,650-\$3,100 .
 - Mid-Range Outdoor Run (2,000 ft, 4 terminations): Cable \$0.70/ft, Labor \$1.60/ft, Permits \$350, Delivery \$120, Accessories \$250. Total $\approx$ \$4,940-\$6,120 .
 - Premium Outdoor Armored (5,000 ft, multiple splices, testing): Cable \$1.00/ft, Labor \$3.00/ft, Permits \$900, Delivery \$350, Warranty extended. Total $\approx$ \$11,000-\$14,500 .
- ### Factors Affecting Price

- Fiber type and count, cable construction, jacket material, indoor vs outdoor, armored vs non-armored, installation complexity, labor, permits, and regional cost variations .
- Bulk purchases (>10 km) reduce per-unit cost, while custom lengths or urgent orders increase it . This classification and pricing guide provides a practical framework for budgeting fiber optic cable projects, whether for enterprise, data center, or long-haul network deployments.

Article Content

Fiber Optic Cable Types Explained: Guide for ISPs and Engineers

Learn the main fiber optic cable types used in FTTH and PON networks. Covers single-mode vs multimode, indoor vs

Fiber Optic Cable Types Explained

Our comprehensive guide to types of fiber optic cables. Learn all about the differences between single

Fiber Optic Cable Cost Guide 2026 - LatestCost - Real-Time Price

Main cost drivers include cable grade (indoor vs outdoor, armoured), distance, and labor for trenching, splicing, and

Fiber Optic Cable Catalog

With a growing list of applications for category cables, many of them critical to a facility's operations, selecting a high quality cable

Fiber Optic Cable Types: OS1, OS2, OM1-OM5 Explained

This guide decodes every fiber optic cable type that matters in real-world structured cabling projects: the two

10 Types of Fiber Optic Cable Explained: Selection Guide (2026)

Explore the top 10 fiber optic cable types for 400G/800G networks. From ADSS to MPO, learn technical specs, applications, and how

Fiber Optic Cable Types * | Single Mode | Multimode

With this table, you can compare the most common fiber optic cable types, including OS1, OS2, OM1, OM2, OM3, OM4 and OM5.

Fiber Optic Cable Types: Comprehensive Guide

Explore the different types of fiber optic cables and understand which type suits your specific needs for speed, distance,

Cost of Fiber Optic Cable: Pricing Guide (2026)

What Are the Different Types of Fiber Optic Cables? Fiber optic cabling typically falls into two categories, each

Fiber Optic Cable Types - Multimode and Single Mode

The Optical Core – a glass tube (core) propagates the light signals through the fiber cable.

Fiber Optic Cables Selection Guide: Types, Features, Applications ...

Once the fiber optic cables are installed, it is important to clean and maintain the cables. There are two types of fiber optic connector

Fiber Optic Cable Types | Omnitron Systems Guide

Explore fiber optic cable types, features, and applications. Omnitron Systems explains single-mode, multi

Fiber Optics and Types

Fiber optic cables are used for long-distance and high-performance data networking. They are capable of transmitting

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4 vs OM5

How Many Types of Multimode Fiber? Identified by ISO 11801 standard, multimode fiber optic cables can be classified

Types of Fiber Optic Cables: A Comprehensive Guide | Network Drops

Learn about single-mode and multi-mode fiber optic cables, their components, uses, and how to choose the right type

Handbook Optical fibres, cables and systems

The optical fibres are specified in ITU-T with reference to the geometrical, optical, transmission and mechanical attributes listed in

Fiber Optic Cable Types * | Single Mode

A Fiber Optic cable is a network cable which transmits data via light signals over glass fiber. It provides

Fiber Optic Cables Guide | Types, Features, & Selection Tips | Tyclon

Learn about the different types, features, and selection criteria for fiber optic cables. Tyclon provides a comprehensive guide to help

Contact Us

Continue your research online:

Website: <https://danialonso.es>

Technical inquiry: <https://danialonso.es/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

