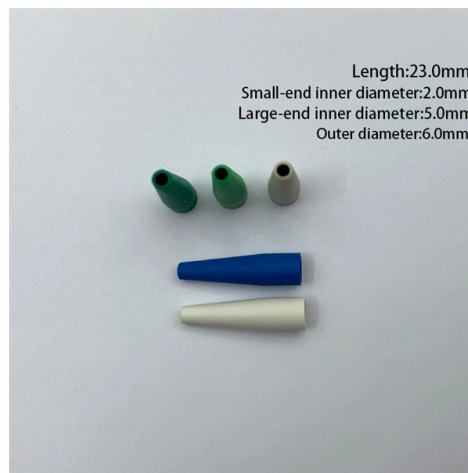


Fiber optic single-mode LC connector



Overview

Thorlabs stocks an extensive selection of single mode fiber optic connectors, available for immediate shipping.

Key Takeaways

A single-mode LC connector is a compact, high-performance fiber optic connector designed for single-mode fibers, offering low signal loss, high-density installation, and reliable long-distance transmission.

Overview

The L

C (Lucent Connector) connector is a miniaturized fiber optic connector with a 1.25 mm ferrule, specifically designed for single-mode fiber cables. Its compact size allows for high port density, making it ideal for data centers, telecommunications, and other high-bandwidth applications where space is limited.

The connector uses a push-pull snap-in mechanism, enabling quick and secure connections while minimizing signal loss and interference.

Key Features and Advantages

Compact Design: The small form factor allows for dense panel installations, reducing space requirements by up to 50% compared to SC connectors. **Low Transmission Loss:** Precision ferrule alignment ensures efficient light transmission and minimal signal degradation over long distances. **Ease of Use:** The push-pull quick-connect mechanism simplifies installation and removal, improving operational efficiency.

Durability: High-quality materials and robust design maintain stable performance under repeated connections and harsh conditions. **Versatility:** Compatible with various fiber optic systems, including patch cords, field-installable connectors, and pre-terminated cables.

Types of L

C Connectors
LC/PC (Physical Contact): Standard connector with a flat ferrule end, typically color-coded blue. Requires careful cleaning to prevent signal loss.
LC/APC (Angled Physical Contact): Ferrule end polished at an 8° angle, reducing back reflection for high-precision applications.

Typically color-coded green.
How It Works
Single-mode LC connectors work by aligning the 9-micron core of the fiber with the ferrule, allowing light to propagate in a single mode with minimal interference. The connector acts as a removable interface between optical fibers or between fiber and equipment, ensuring reliable signal transmission while allowing easy maintenance or reconfiguration.

Installation and Field Use
Field-installable LC connectors, such as Corning UniCam®, use mechanical splice technology for fast, epoxy-free installation. The process involves stripping, cleaning, cleaving, camming, and crimping the fiber, typically completed in under a minute.

Keyed L

C connectors can also provide network segregation and security, preventing unauthorized access.
Applications
Single-mode LC connectors are widely used in:
Telecommunications networks
Data centers and server farms
Fiber-to-the-home (FTTH) deployments
High-density patch panels and optical distribution frames
Their combination of compact size, low loss, and ease of use makes them a preferred choice for modern optical communication systems.

Article Content

Single Mode Fiber Optic Connectors

Thorlabs stocks an extensive selection of single mode fiber optic connectors, available for immediate shipping. Choose from FC/PC, FC/APC, ST/PC, LC/PC,

UniCam® Connectors LC, Single-mode (OS2), Blue

Using precision mechanical splice tech, UniCam enables quick, cost-effective fiber installations. With the High-Performance Tool Kit, LC, SC, or ST® connectors install in just 50 seconds to one minute. The

LC/PC and LC/APC Fiber Connectors: Single Mode

These LC ®* /PC (Lucent Connector / Physical Contact) and LC/APC (Lucent Connector / Angled Physical Contact) connectors were developed to meet the

A Complete Guide to Single Mode LC Connectors in

First of all, the LC connector is a miniaturized fiber optic connector with a 1.25mm sealing ring inside. It is small in size, high in density, and adopts a push-pull

Fiber Optic Pigtails | SC, LC, ST Single Mode & Multimode

High-quality fiber optic pigtails for terminating and splicing in any network environment. We stock a wide variety of pigtail fiber types, including single mode

Fiber Optic Connector Types: A Beginners Guide

The fiber connector types, sometimes referred to as terminations, link fiber optic cables together through terminals, switches, adapters, and patch

What Is Fiber Patch Cord? Singlemode/Multimode,LC SC FC,UPC Vs

LC or SC connector? UPC or APC polish? This article systematically introduces fiber patch cord basics, optical specifications and full-range industry applications to help you make correct

Differences Between SC and LC Connectors | LC vs SC connector

While both SC SFP module and LC SFP module serve the same purpose of establishing a connection between the network device and fiber optic cable, they differ significantly in design,

Everything you need to know about fiber optic termination

Different connectors and splice termination procedures are used for singlemode and multimode connectors, so make sure you know what the fiber will be before you specify connectors or splices!

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Blank Fiber Optic Panels Fiber Optic Fiber patch panels from L-com are available in single-mode and multimode configurations. We offer multiple fiber optic patch panels including LC, ST, SC, FC, MTRJ,

Comprehensive LC Optical Fiber Connector Market Forecast: 12

The LC optical fiber connector market is segmented by type into Single Mode and Multi-Mode connectors, serving various applications such as Data Centers, Local Area Networks (LAN),

Fiber Optic Cable Supply | Buy Fiber Optic Products from The Most ...

The LightWave LC-LC Singlemode OS2 Fiber Optic Patch Cable is a perfect combination of high performance, low data loss and cost efficiency. When it comes to telecommunications applications,

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EXFO OX1 Optical Fiber Multimeter, Last Mile Installation Optical Explorer - PRO version 1310/1550 nm, SC/APC Click-Out Optical Connector OX1-PRO-I-88 Availability: Call for price

Fiber Optic Patch Cord, Single Mode & Multimode Patch Cord

Fiber Optic Patch Cord In this category, you will find various duplex and simplex LC/SC/FC/ST/Uniboot LC/MDC fiber optic patchcords, which are used to connect network devices such as switches,

G652.D fiber optic cable with LC/UPC to LC/UPC single

G652.D Duplex Single-Mode (SM) fiber optic cable. It has two LC / UPC connectors at both ends of the cable. 100% verified cable, top quality and LSZH (Low Smoke

Fiber Connectors

Fiber Optic Cable Connectors are used to connect two runs of fiber optic cable. The most popular versions include, push-on Square Connectors (SC), snap-in Lucent Connectors (LC), and twist-on

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

