

APC connector mating



Overview

APC Series connector delivers IP67 fast-mating circular power and signal with UV/UL materials, compact Mini and high-power variants, and easy service. Built on a durable. Thorlabs' mating sleeves are compatible with industry-standard connectors such as FC/PC, FC/APC, SMA, ST, LC, and SC. Our mating adapters use a butt joint-style connection and are available as inline units, mounted in an L-bracket for compatibility with standard optomechanical setups, or built into. APC Connector is a type of fiber connector that minimizes backreflection due to a 5° to 15° angle-polish applied to end faces. Like illustrated in the following picture. Because of the angle, the reflected light does not stay in the fiber core but instead leaks out into the cladding. Two connectors of type FC PC (0° -polish) or of type FC APC (8° -polish) can be connected.



Article Content

Feb 21, 2026

101 Series: What is an APC Connector and How Do I

The singlemode fiber connectors you likely encounter the most feature a blue connector body, but if you're working with any passive optical networks (PONs),

Mar 10, 2026

Fiber Optic Patch Cables: The Complete 2026 Buyer's Guide

Confused by LC, SC, MPO, UPC, and APC? This complete fiber optic patch cable guide covers connector types, single-mode vs multimode, insertion loss specs, and how to choose the right

Dec 27, 2025

Connector Options in Fiber Optic Networks

UPC and APC connectors are typically machine polished and measure at -55db and -65db respectively. The machine polish used to deliver low reflectance for UPC and APC connectors is a spherical

May 20, 2026

SC/APC Fiber Optic Adapter: A Beginner's Guide

If you work with single-mode optical networks—FTTH, PON, CATV, 5G fronthaul—you will run into the SC/APC fiber optic adapter (sometimes called

Jun 12, 2026

Mating Sleeves

Mating sleeves provide an uninterrupted physical contact between two single-mode fiber cables SMC with core-centering. Two connectors of type FC PC (0°-polish)

Aug 08, 2025

Reuired Steps for Fiber Optic Connector Mating

Mating a dirty or damaged connector to a clean connector can transfer the contaminants and damage the connector. If the connector in an adapter is dirty, additional probe tips will be needed for

Aug 31, 2025

Mating Sleeves and Adapters

Product Portfolio AMS Technologies offers a wide range of mating sleeves and adapters available from stock. These components allow reliable connection of

Oct 22, 2025

Multimode MPO and SN-MT Connectors with APC Endface: When

Compared to UPC connectors, APC interfaces are more tolerant of contamination and end face geometry deviations. This is why many transceiver vendors now specify APC connectors—even for

Apr 13, 2026

APC vs UPC Connectors: Understanding the Differences

UPC connectors are blue while APC connectors are green. What does this difference mean in terms of performance? With UPC connectors, any reflected light is

May 03, 2026

What Are APC (Angled Physical Contact) Fiber Connectors?

APC Series Connectors Amphenol Industrial Operations lightweight, IP67-rated, circular connectors are designed for fast-mating and signal applications Amphenol Industrial Operations APC

May 20, 2026

Hybrid Adapters | Compact Fiber Interface for Multiple

Diamond Hybrid Adapters enable direct mating between connectors with different interfaces, reducing costs and complexity. Available for SM PC/APC and MM PC,

Jun 23, 2026

APC Series | Lightweight Power & IP67 Fast-Mating

Built on a durable plastic-shell platform with fast, repeatable coupling and environmental sealing when mated, APC helps OEMs, designers, and buyers standardize connector interfaces across multiple

Dec 02, 2025

Fiber Optic Mating Sleeve Adapters

Fiber Optic Connector Intermateability Standard. Standard Test Procedure for Fiber Optic Components. Connectors for Optical Fibers and Cables, Generic Standard. Fiber Optic Interconnecting Devices

Apr 08, 2026

APC vs UPC Fiber Connectors: Differences, Performance, and How

Learn the key differences between APC and UPC fiber connectors—return loss, design, applications, and compatibility. Find out which polish type fits your network needs.

May 05, 2026

What are APC and UPC connectors

Mating Compatibility: You cannot mate an APC connector with a UPC connector! The angle on the APC connector will cause damage to both connectors. They are physically incompatible and attempting to

Apr 20, 2026

Fiber Optic Adapters / Mating Sleeves | Fibertronics, Inc.

Fibertronics, Inc. provides an extensive range of fiber optic adapters encompassing all connector types, including SC, SC-APC, FC, FC-APC, LC, LC-APC, ST,

Nov 10, 2025

Fiber Optic Connectors | MEETOPTICS Academy

However, significant insertion loss can result when mating to different styles, and because of this, we recommend that FC/APC connectors be mated only with

Jun 22, 2026

Mating Sleeves and Adapters

While the PC version has a wide key (2.18 mm) accepting both wide and narrow key connectors, the APC version's narrow key (2.05 mm) ensures very accurate

Apr 01, 2026

APC Series | Lightweight Power & IP67 Fast-Mating

APC Series connector delivers fast-mating, lightweight circular power and signal connectivity with IP67 options and variants for compact and high-power needs.

May 16, 2026

Mating Sleeves/Connectors

Our mating adapters use a butt joint-style connection and are available as inline units, mounted in an L-bracket for compatibility with standard optomechanical

Sep 26, 2025

What Are APC (Angled Physical Contact) Fiber

For systems such as RF video, the APC connector is preferred because these particular systems are extremely sensitive to any back reflections from

Jul 20, 2025

Fiber Connectors – termination, plugs, assembly,

Fiber connectors are connectors used as terminations of optical fiber cables. They are widely used in optical fiber communications and various other areas.

Dec 13, 2025

ODVA Fiber Optic Connectors (DLC, SC, MPO) – Rugged Waterproof

ODVA fiber optic connectors, cable assemblies & adapters – IP67 waterproof for FTTA and harsh environments. Discover key features, specs, installation tips & FAQs.

Aug 10, 2025

Why APC Connectors Aren't for All Network Equipment | Weunion Guide

As a leading provider of fiber optic solutions, Weunion emphasizes the importance of matching connector types to equipment specifications. This guide explores the technical disparities

Feb 04, 2026

Fiber Optic Mating Adapter, FC Female to FC Female

The F-MA-FC-FC Optical Fiber Mating Adapter/Sleeve is a wide key adapter used to connect two FC/PC or two FC/APC fibers together with low loss. This model has

Contact Us

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