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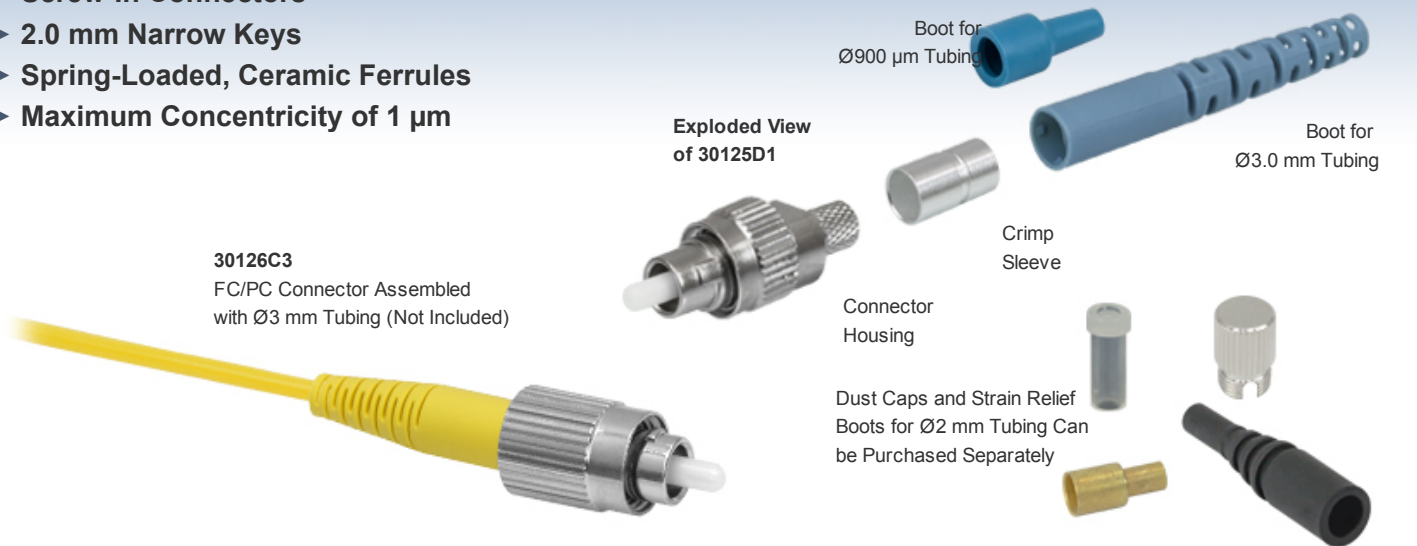


30125D1 - MAY 19, 2016

Item # 30125D1 was discontinued on MAY 19, 2016. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

FC/PC FIBER CONNECTORS: SINGLE MODE AND POLARIZATION-MAINTAINING

- ▶ Screw-In Connectors
- ▶ 2.0 mm Narrow Keys
- ▶ Spring-Loaded, Ceramic Ferrules
- ▶ Maximum Concentricity of 1 µm



OVERVIEW

Features

- FC/PC Connectors with 2.0 mm Narrow Keys for Single Mode or Polarization-Maintaining Fiber
- Screw-In Connector for High Stability
- Pre-Radiused, Spring-Loaded, Ø2.5 mm, Ceramic Ferrule
- Strain Relief Boot for Ø3.0 mm or Ø900 µm Tubing and Connector Cap Included

Threaded FC/PC connectors are designed for high-vibration environments. The "PC" stands for "physical contact" because these connectors allow the surfaces of two connected fibers to be in direct contact with each other. The FC/PC single mode connectors on this page feature a pre-radiused (20 mm) ceramic ferrule that minimizes back reflections. The ceramic ferrule is also spring-loaded to control the force on the fiber as the connector is screwed into its port.

For use with Polarization-Maintaining Fiber, we offer the 30125D1 FC/PC style connector. This connector's key is continuously adjustable, allowing precise alignment with the axis of the PM fiber. Once the key is aligned, it can be locked into place by adding a drop of superglue in the slot near the back of the connector.

Each 2.0 mm narrow key connector comes complete with a strain relief boot for either Ø3 mm or Ø900 µm tubing (both in the case of 30125D1) and a fiber connector cap. They also feature a hole size tolerance of +1 µm / -0 µm and a maximum concentricity of 1 µm.

As an alternative to assembling a patch cable using optical fiber, connector, and furcation tubing components, Thorlabs also offers pre-built patch cables from stock using the connectors sold on this page. See the table to the right and the *Patch Cables* tab for a listing of patch cables available that incorporate connectors sold on this page.

Fiber Connector Selection Guide	
Single Mode	Multimode
FC/PC FC/APC ST/PC LC/PC SC/PC	FC/PC (SS Ferrule) FC/PC (Ceramic Ferrule) FC/APC SMA905 ST/PC SC/PC
Bare Ferrules	
Bare Fiber Terminator	

Stock Patch Cables Available with Connectors Sold on This Page	
Single Mode	Polarization-Maintaining
FC/PC Hybrid Connectors AR-Coated BS-Coated Mirror-Coated Low-Insertion-Loss	FC/PC Hybrid Connectors AR-Coated Mirror-Coated

PATCH CABLES

Stock Patch Cables Available with These Connectors

As an alternative to buying and assembling separate optical fiber, connectors, and furcation tubing, Thorlabs offers pre-built patch cables from stock using the connectors sold on this page. Stocked patch cables are available with single mode or polarization-maintaining single mode optical fiber, as indicated by the table to the right. Additionally, Thorlabs offers Custom Patch Cables with same-day shipping, which can be constructed using the connectors sold on this page.

Fiber Type	Patch Cable Type	Connectors	Fiber Wavelength Range
Single Mode	Standard FC/PC	FC/PC to FC/PC	320 - 2100 nm ^a
	Hybrid Connectors	FC/PC to FC/APC or FC/PC to SMA905	320 - 2100 nm ^a
	AR-Coated	FC/PC to FC/PC, FC/PC to FC/APC, or FC/PC to FC/APC	320 - 2100 nm ^a
	BS-Coated	FC/PC to FC/PC or FC/APC to FC/APC	1260 - 1620 nm
	Reflective-Coated	FC/PC or FC/APC	970 - 1620 nm ^a
	Low Insertion Loss	FC/PC to FC/PC, FC/PC to FC/APC, or FC/APC to FC/APC	320 - 800 nm ^a
Polarization-Maintaining Single Mode	Standard FC/PC	FC/PC to FC/PC	405 - 2000 nm ^b
	Hybrid Connectors	FC/PC to FC/APC	405 - 2000 nm ^b
	AR-Coated	FC/PC to FC/PC or FC/PC to FC/APC	620 - 1620 nm ^b
	Reflective-Coated	FC/PC or FC/APC	970 - 1550 nm

- This is the wavelength range covered by multiple fibers.
- PM patch cables are aligned at discrete wavelengths in this range, based on the fiber type.

FC/PC Fiber Connectors: Single Mode

Item #	Style	Bore	Concentricity	Ferrule	Included Boot(s)	Crimp Tool for Ø3.0 mm Tubing ^a
30080D1	2.0 mm FC/PC Narrow Key	Ø80 +1/-0 µm	1 µm	Ø2.5 mm, Ceramic	Ø900 µm	Not Required
30125D1	2.0 mm FC/PC Narrow Key, Adjustable	Ø125.5 +1/-0 µm	<1 µm	Ø2.5 mm, Ceramic	Ø900 µm and Ø3.0 mm	CT042
30126C3	2.0 mm FC/PC Narrow Key	Ø126 +1/-0 µm	1 µm	Ø2.5 mm, Ceramic	Ø3.0 mm	CT042
30126C9	2.0 mm FC/PC Narrow Key	Ø126 +1/-0 µm	1 µm	Ø2.5 mm, Ceramic	Ø900 µm	Not Required

- A crimp tool is not required for Ø900 µm boots. For more details, please see our FN96A Connectorization Guide.

Part Number	Description	Price	Availability
30080D1	FC/PC Single Mode Connector, Ø80 µm Bore, Ceramic Ferrule, Ø900 µm Boot	\$20.40	Today
30125D1	FC/PC Adjustable Key Connector for PM Fiber, Ø125.5 µm Bore, Ø3.0 mm & Ø900 µm Boots	\$10.97	Today
30126C3	FC/PC Single Mode Connector, Ø126 µm Bore, Ceramic Ferrule, Ø3.0 mm Boot	\$7.34	Today
30126C9	FC/PC Single Mode Connector, Ø126 µm Bore, Ceramic Ferrule, Ø900 µm Boot	\$7.34	Today

Strain Relief Boots and Dust Caps



- ▶ Strain Relief Boots and Crimp Sleeves for Ø2 mm Tubing (25 Pack)
- ▶ CAPF Dust Cap for Ø2.5 mm Ferrules (25 Pack)
- ▶ CAPFM Threaded Metal Dust Cap for FC Connectors (4 Pack)

Thorlabs offers strain relief boots and dust caps that can be purchased separately from our fiber connectors. The black strain relief boots sold here are compatible with FC/PC and FC/APC connectors and Ø2 mm furcation tubing (our stock connectors do not include a boot compatible with Ø2 mm tubing).

The CAPF Clear Plastic Dust Caps are for use with all Ø2.5 mm fiber connector ferrules and FC connectors, and the CAPFM Threaded Nickel-Plated Brass Dust Caps are for use with narrow-key FC connectors. Dirt on the fiber tip can result in permanent damage to the fiber connector, which can increase coupling losses or create undesirable mode structures in the output light. To prevent damaging the connectorized fiber, clean before each use with an appropriate fiber and connector cleaning product and use a fiber connector cap to protect the end face of the connectorized fiber when it is not in use.

Part Number	Description	Price	Availability
190066CP	Black Strain Relief Boots and Crimp Sleeves for Ø2 mm Tubing and FC/PC Connectors, 25 Pack	\$22.80	Today
CAPF	Clear Plastic Dust Caps for Ø2.5 mm Ferrules, 25 Pack	\$6.60	Today
CAPFM	Customer Inspired!Metal Threaded caps for FC Connectors, 4 Pack	\$7.00	Today

Visit the *FC/PC Fiber Connectors: Single Mode and Polarization-Maintaining* page for pricing and availability information:
http://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=1380