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**THORLABS**

### 30128A3 - MAY 17, 2016

Item # 30128A3 was discontinued on MAY 17, 2016. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

#### FC/APC FIBER CONNECTOR: MULTIMODE, CERAMIC FERRULE

- ▶ Pre-Angled 8° Ceramic Ferrule
- ▶ Typical 10 dB Improvement in Return Loss for 0.22 and 0.27 NA Fibers Compared to FC/PC Connectors
- ▶ 2.0 mm Narrow Keys

30128A3  
FC/APC with Ceramic Ferrule,  
Pre-Angled 8°



30128A3



OVERVIEW

Features

- FC/APC Connectors with 2.0 mm Narrow Keys
- 8° Pre-Angled Ceramic Ferrules
- Strain Relief Boot for Ø3.0 mm Tubing and Connector Cap Included
- Additional Dust Caps can be Purchased Separately

Thorlabs' 30128A3 FC/APC Connector has a 2.0 mm narrow key and an 8° pre-angled ceramic ferrule. The connector package includes a fiber connector cap and a Ø3 mm green boot. Additionally, we offer stainless steel sleeves designed for mating connectors to our stainless steel tubing. Please refer to stainless steel tubing and sleeves for more information.

The 30128A3 is designed for multimode fibers with a cladding diameter of 125 µm and low numerical apertures (NAs), such as the ones listed in the Recommended Fiber table to the right. The 8° pre-angled ferrule reduces back reflections in low-NA fibers, which leads to an improvement in return loss. For example, for 0.275 and 0.22 NA fibers, those terminated with FC/APC connectors showed a typical return loss improvement of 10 dB for fiber-to-free-space compared to that measured with FC/PC connectors. Our AFS50 (0.22 NA), AFS105 (0.22 NA), and GIF625 (0.275 NA) have average decrease in return loss of 11.25 dB, 7.4 dB, and 10.3 dB, respectively. This improvement will be more pronounced for fibers with smaller NAs.

FC/APC connectors can only be mated to other FC/APC connectors. Thus, the 30128A3 provides a solution for connecting FC/APC-terminated components.

We do not currently offer green Ø2 mm strain relief boots. If you would like to use this connector with Ø2 mm furcation tubing, the black 190066CP boots sold on the Furcation Tubing, Sleeves, and Connector Caps page are compatible with the 30128A3.

If you need a bore size that is not listed below, please e-mail Tech Support for a quote on custom sizes.

As an alternative to buying and assembling separate optical fiber, connectors, and furcation tubing, Thorlabs also offers custom pre-built patch cables using the connectors sold on this page. See our Custom Fiber Patch Cable Configurator to place an order.

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	

Recommended Fiber	
Ø10 µm Core	HPSC10
Ø25 µm Core	HPSC25
Ø50 µm Core	FG050UGA FG050LGA GIF50C
Ø62.5 µm Core	GIF625 Fiber Series
Ø105 µm Core	FG105UCA FG105LCA

FC/APC Fiber Connector: Multimode, Ceramic Ferrule

Item #	Style	Inner Diameter	Diameter Tolerance	Concentricity	Ferrule	Boot Included	Crimp Tool
30128A3	FC/APC	127 µm	+4/-0 µm	4 µm	Ceramic, Pre-Angled 8°	Ø3 mm	CT042

Part Number	Description	Price	Availability
30128A3	FC/APC Multimode Connector, Ø127 µm Bore, Ceramic Ferrule	\$9.22	Lead Time

Dust Caps



Our CAPF Clear Plastic Dust Caps are for use with all Ø2.5 mm fiber connector ferrules and FC connectors, while our CAPFM Threaded Nickel-Plated Brass Dust Caps work with any narrow-key FC connector. Dirt on the fiber tip can cause permanent damage to the fiber connector, which can result in increased coupling losses or undesirable mode structure in the output light. To prevent damaging the connectorized fiber, clean it before each use 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
CAPF	Clear Plastic Dust Caps for Ø2.5 mm Ferrules, 25 Pack	\$6.60	Today

Visit the FC/APC Fiber Connector: Multimode, Ceramic Ferrule page for pricing and availability information: [https://www.thorlabs.com/newgrouppage9.cfm?objectgroup\\_id=6979](https://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=6979)