

# Fiber Optic Singel Mode Pigtailed Ferrules

400–2500 nm, SM, PM, 10W, PER 28



DATASHEET

[Return to the Webpage](#)



## Features

- Miniature
- High PER
- Low Loss
- High Power

## Applications

- Device
- Special Solution



We offer a comprehensive range of fiber-pigtailed ferrules for single-mode and polarization-maintaining fibers, covering wavelengths from 400 to 2300 nm with polarization extinction ratios up to 29 dB and optical power handling up to 10 W. The FPIG fiber-pigtailed ferrules are designed for packaging with lenses to form miniature collimators with low insertion loss, high return loss, and high optical power handling. Protected inside glass ferrules, they are integrated into many of our products. We also specialize in custom solutions to meet specific application requirements.

## Specifications

Parameter		Min	Typical	Max	Unit
Insertion Loss <sup>[1]</sup>	630, 632, 650 ±20nm		0.3	0.5	dB
	780, 850, 980 ±20nm		0.2	0.3	
	1060, 1220 ±30nm		0.1	0.2	
	1310 - 1600 nm		0.1	0.2	
	1900 - 2400nm		0.3	0.5	
Working Distance		1	5	100	mm
PMD (SMF Switch only)			0.1	0.3	ps
Extinction Ratio (PMF only)		18	25		dB
Return Loss			55	60	dB
Optic power Handling <sup>[4]</sup>	Normal power version		0.3	0.5	W
	High power version			5, 10	W
Operating Temperature	Standard	-5		75	°C
	Special version	-40		100	°C
Storage Temperature		-45		85	°C

### Notes:

[1]. Measured with a pair with collimating lens and without connectors

**Note:** The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

**Legal notices:** All product information is believed to be accurate and is subject to change without notice. Information contained herein shall legally bind Agiltron only if it is specifically incorporated into the terms and conditions of a sales agreement. Some specific combinations of options may not be available. The user assumes all risks and liability whatsoever in connection with the use of a product or its application.

Rev 05/19/26

[P +1 781-935-1200](tel:+17819351200)

[E sales@agiltron.com](mailto:sales@agiltron.com)

[W www.agiltron.com](http://www.agiltron.com)

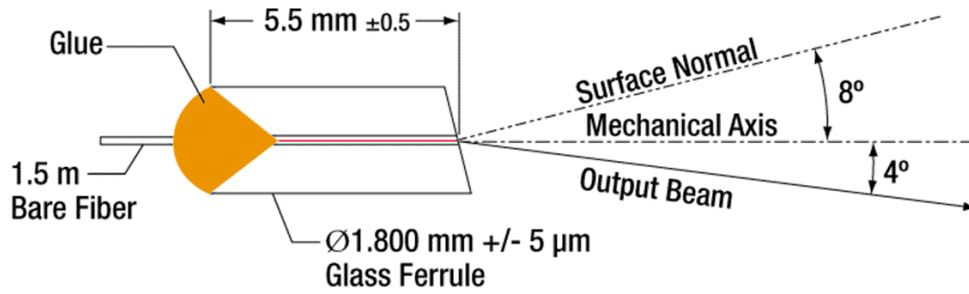
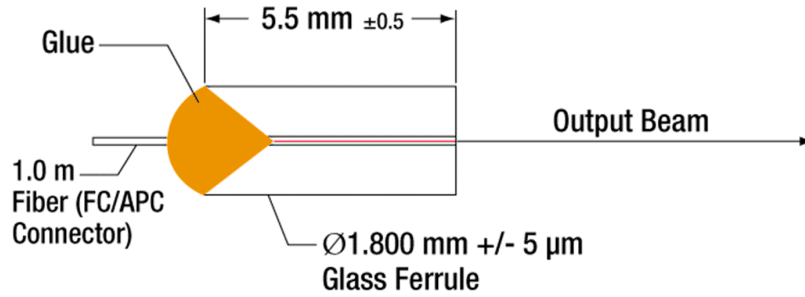
# Fiber Optic Singel Mode Pigtailed Ferrules

400–2500 nm, SM, PM, 10W, PER 28



## DATASHEET

Mechanical Dimensions Standard for beam size <0.8mm (Unit: mm)



\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

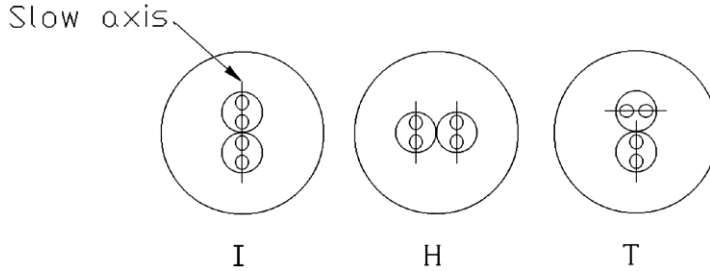
# Fiber Optic Singel Mode Pigtailed Ferrules

400–2500 nm, SM, PM, 10W, PER 28



## DATASHEET

### PM Stress Field Orientation



### Ordering Information (Part Number)

Prefix	# Fiber	PM Fiber Orientation <sup>[1]</sup>	Wavelength	Face Angle	PER	Power <sup>[2]</sup>	Max Temperature <sup>[3]</sup>	Fiber Type	Fiber Cover	Fiber Length	Connector <sup>[4]</sup>
<b>FPIG-</b>	Single = 1 Dual = 2 Special = 0	N/A = S I = 1 H = 2 T = 3 Special = 0	1550 = 5 1060 = 1 2000 = 2 1310 = 3 1480 = 4 1625 = 6 980 = 9 850 = 8 780 = 7 650 = E 550 = F 400 = G 1265~1620 = L Special = 0	8 degree = 8 0 degree = 0 Special = 0	N/A = S 18 dB = 1 22 dB = 2 28 dB = 3 29 dB = 4	0.5W = 1 2W = 2 5W = 5 10W = 6	75 °C = 1 85 °C = 2 100 °C = 3 120 °C = 4 150 °C = 5	SM28 = 01 Special = 00  <b>Select Below</b>	Bare fiber = 1 0.9mm tube = 3 Special = 0	0.5m = 1 1.0m = 2 1.5 m = 3 Special = 0	None = N FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/APC = A LC/UPC = U Special = 0

- [1]. For single fiber I and H is aligned to slow axis, T to fast axis. For 8-degree dual fiber ferrule, the polishing default is parallel to the two fibers
- [2]. For wavelength >1310nm, for shorter wavelength power handling is reduced accordingly due to fiber core reduction.
- [3]. High temperature reduces the polarization extinction ratio.
- [4]. The connector cannot be installed directly onto bare fiber, as it is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer can remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SM28 fiber and decreases further with smaller core fibers.

**Fiber Type Selection Table:**

01	SMF-28	34	PM1550	71	MM 50/125µm
02	SMF-28e	35	PM1950	72	MM 62.5µm
03	Corning XB	36	PM1310	73	105/125µm
04	SM450	37	PM400	74	200 µm NA 0.22
05	SM1950	38	PM480	75	400 µm NA 0.22
06	SM600	39	PM630	76	STP 50/125
07	Hi780	40	PM850	77	IRZS23
08	SM800	41	PM980	78	IRFS32
09	SM980	42	PM780	79	
10	Hi1060	43	PM350	80	PCF
11	SM400	44	PM405	81	UV180nm
12		45	PM460	82	LMA-PM-10
13		46			