

Fiber Optic Retroreflector



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Agiltron Fiber Optic Retroreflector is designed to reflect light input backward through the fiber. Our retroreflectors are available with single mode (SM), polarization-maintaining (PM), or multimode (MM) fiber. A specially made mirror is used in our device that achieves high reflection up to 99% and high optical power handling up to 5W.

Applications

- Fiber Interferometer
- Fiberoptic Sensor
- Fiber Instruments

Features

- Low Insertion Loss
- High Power
- High Reliability
- Low Cost
- Environmental Stability

Specifications

Parameter	Min	Typical	Max	Unit
Central Wavelength (λ_c)	630		2200	nm
Typical Spectral Width ($\Delta\lambda$)	± 30		± 50	nm
Typical Insertion Loss (λ_c , 23°C, no connector)	0.35		2	dB
Polarization Extinction Ratio (PM Fiber)	18		30	
Reflection Percentage	96		99	%
PDL (λ_c , 23°C)	≤ 0.10			dB
Operating Temperature	-5		+70	°C
Storage Temperature	-40		+85	°C
Optical Power Handling	0.2		5	W
Package Dimensions	$\varnothing 5.5 \times L35$			mm

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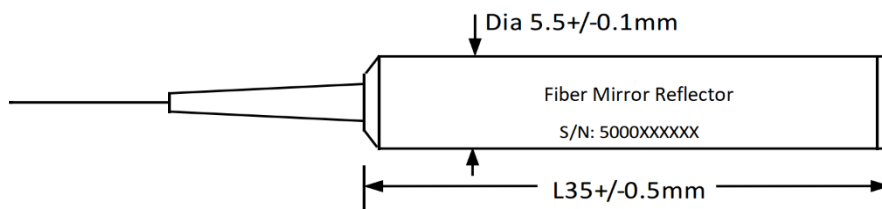
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Dimensions (mm)



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

Ordering Information (Part Number)

Prefix	Type	Wavelength	Reflection	Package	Fiber Type	Fiber Cover	Fiber Length	Connector ^{[1][2]}
FOMR-	Regular = R High Power = H	1064nm = 1 1310nm = 3 1550nm = 5 1800nm = 2 850nm = 8 780nm = 7 980nm = 9 650nm = 6 460nm = 4 Special = 0	100% = 11 10% = 10 20% = 20 Special = 00	ø5.5x35 = 2 ø3.5x15 = 1 Special = 0	Choose from table below Special = 0	900µm Tube = 3 Bare Fiber = 1 Special = 0	0.25m = 1 0.5m = 2 1.0m = 3 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/UPC = U Special = 0

[1]. Regular fiber connector has PER ~22dB. Connector with PER >27 dB is available using special process

[2]. The default connector configuration uses fiber with 0.9 mm buffer protection. The connector cannot be installed directly onto bare fiber because the bare fiber 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 may remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SMF-28 fiber and decreases further for 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	FG105LCA
05	SM1950	38	PM480	75	FG50LGA
06	SM600	39	PM630	76	STP 50/125
07	Hi780	40	PM850		
08	SM800	41	PM980		
09	SM980	42	PM780		
10	Hi1060	43	PM350		
11	SM400	44	PM405		
12	SM780	45	PM460		
13		46			