

Fiber Optic Partial Reflector-One and Two Ports

450-2200 nm



DATASHEET

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Applications

- Fiber Interferometer
- Fiberoptic Sensor
- Fiber Instruments

Features

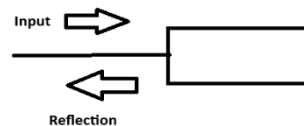
- Low Insertion Loss
- High Power
- High Reliability
- Low Cost
- Environmental Stability

FOPR Partial Reflectors use an internal partially reflecting mirror to direct a defined fraction of the input light back toward the source while transmitting the remainder to the output. Any excess light is either transmit through a second port (two-port version, higher power handling) or dispersed internally (single-port version, lower cost). These devices operate single-mode from 450 nm to 2200 nm. The white-labeled port is the input and the blue-labeled port is the output. Standard fiber pigtails are 1 m long in Ø900 µm Hytrel® jacketing. Custom options for wavelengths, fiber types, and R:T ratios are available on request.

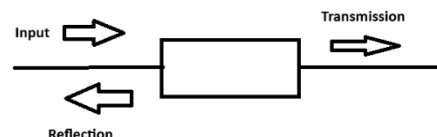
Specifications

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	10		20	%
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	Ø5.5 x L35			mm

One Port



Two Ports



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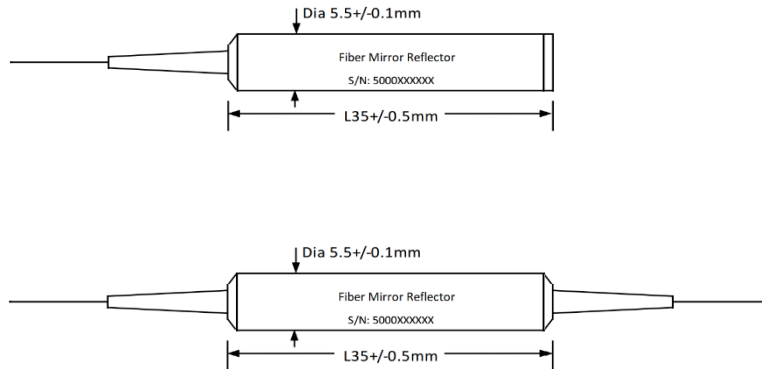
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Dimensions (mm)



*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]
FOPR-	One Port = R Two Port = H	1064nm = 1 1310nm = 3 1550nm = 5 780nm = 7 980nm = 9 650nm = 6 Special = 0	10% = 10 20% = 20 Special = 00	ø5.5x35 = 2 ø3.5x15 = 1 Special = 0	SMF-28 = 1 HI1060 = 2 PM1550 = A SM600 = 6 SM780 = 7 SM980 = 9 PM980 = B 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 Special = 0

* Select two port, if the optical power exceeds 100mW

[1]. 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.