Fiber Optical Mini Collimators

(1.2mm-3.2mm, SM, PM, 5W, 10W)

(patent pending)

DATASHEET

BUY NOW

We produce a wide range of miniature fiber optical collimators featuring low loss, long working distance, high return loss, no organic in the light path, and high optical power handling. These collimators are used in many of our products. We are specialized in providing custom solutions.

We produce lower loss collimating lens for the 1950nm band using NSF11 glass. The coupling loss between a pair of collimators is typically 0.3dB lower than regular glass lenses.

Features

- Low Loss
- High Power
- Long Distance
- Compact

Applications

- Device
- Test
- Special Solution

Specifications

Parameter		Min	Typical	Max	Unit
Insertion Loss [1]	630, 632, 650 ±20nm		0.8	1	dB
	780, 850, 980 ±20nm		0.3	0.4	
	1060, 1220 ±30nm		0.3	0.3	
	1310 - 1600 nm		0.2	0.25	
	1900 - 2400nm		0.4	0.5	
Working Distance		1	5	20	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 [4]	Normal power version		300		mW
	High power version			5, 10	W
Operating Temperature	Standard	-5		75	°C
	Special version	-40		85	
Storage Temperature		-45		100	°C

Notes:

[1]. Measured with a pair 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]:

Rev 08/08/24

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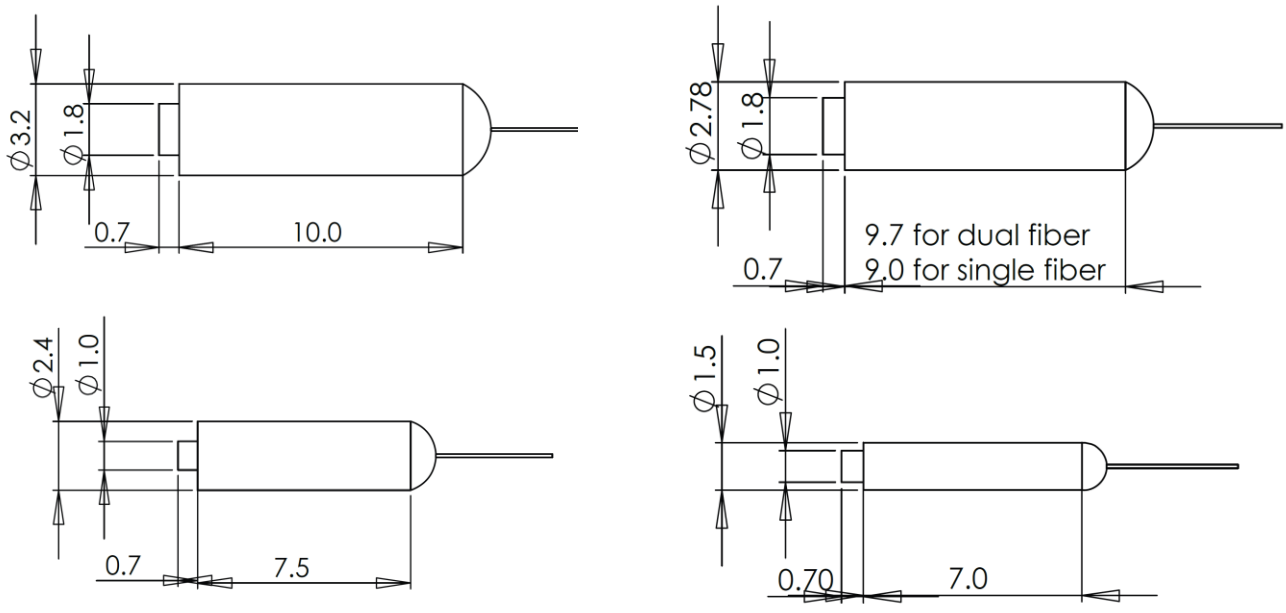
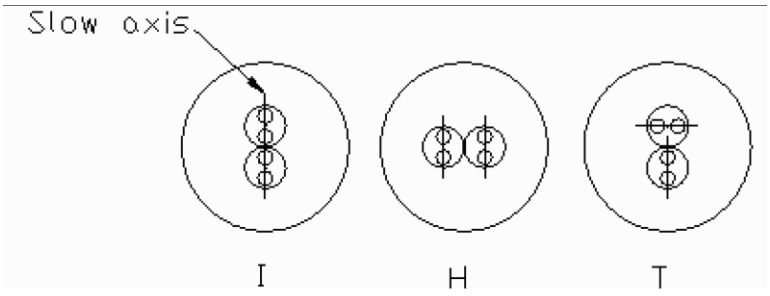
Mechanical Dimensions (Unit: mm)



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

PM Stress Field Orientation



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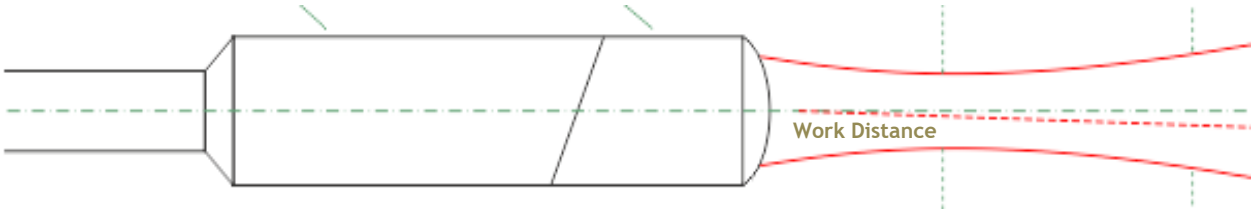
Typical Collimator Beam Profile



Ordering Information

	☐	☐	☐	☐	☐	☐	☐	☐	☐
Prefix	**Type**	**Slow Axis Orientation**	**Wavelength**	**Working Distance (mm)**	**Diameter (mm)**	**Fiber Type**	**Fiber Cover**	**Fiber Length**	**Connector**
FCOM-	Single = 1 Single/H [1] = S Dual = 2 Dual/H [2] = D Special = 0	N/A = 4 I = 1 H = 2 T = 3 Special = 0	1550 = 5 1060 = 1 2000 = 2 1310 = 3 1480 = 4 1625 = 6 780 = 7 850 = 8 650 = E 550 = F 400 = G 1265~1620 = L Special = 0	3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 9 = 9 10 = A 11 = B 14 = C 15 = D 16 = E 17 = F 18 = G Special = 0	1.8 = 1 3.2 = 3 2.8 = 2 1.4 = 4 1.2 = 5 Special = 0	SMF-28 = 1 HI1060 = 2 HI780 = 3 PM1550 = 5 PM850 = 8 PM980 = 9 Special = 0	Bare fiber = 1 900um tube = 3 3mm tube = 5 Special = 0	0.25m = 1 0.5m = 2 1.0 m = 3 Special = 0	None = 1 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]. Single/High Power

[2]. Dual/High Power

* Customer must provide a working distance. We will optimize and test at the working distance point. The collimator may not meet spec off the working distance.

Warning: An Optical Collimator need to have a working distance stated by the customer at the time of order. The optical parameters only tested at the working distance.

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