

Features

- Ideal for Fiber Laser Applications
- Patented Fiber Fusion Technology
- Standard Beam Diameters up to 12.5mm
- Designed for Single Mode Applications up to 100W
- Uses High Performance GRADIUM[®] Lenses
- Rugged Stainless Steel Design
- New Armored Cabling Available



1064nm Beam Delivery optics

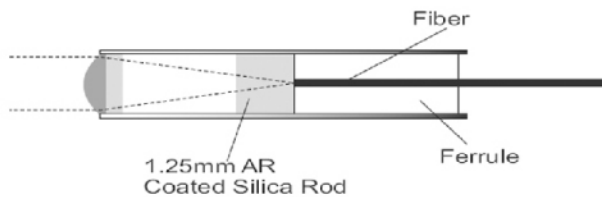
Center Wavelength	1064nm
Return Loss	-55dB
Pointing Accuracy	1° Maximum
Beam Roundness	> 90%
M ²	< 1.2
Output Beam Offset	1.5mm Max
Transmission	> 97%
Working Distance	Infinity
Storage Temperature	-40°C to +85°C
Fiber Type	Corning HI1060
Fiber Length	5 meters

Note : Above specifications are measured and guaranteed at room temperature (25°C) only.

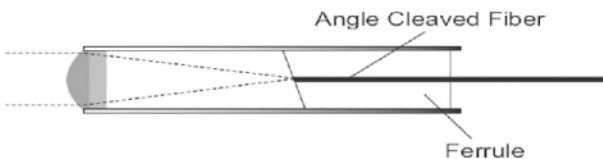
Cable type

- 10265xxx Series : 3.0mm PVC/kevlar
- 10275xxx Series : 3.0mm Stainless Steel

Fusion Fiber Collimator Advantage

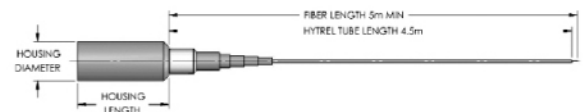


Our patented process fuses the silica fiber directly to a large silica rod. In applications involving Corning's HI 1060 fiber, light expands within the silica rod and exits in an area 12,000 times larger than competitive collimators greatly reducing the power density and improving the reliability at higher power levels.



Light exits fiber and tip and expands in air until collimated by the optical lens. Using Corning's HI 1060 fiber as an example, energy is concentrated in area only 6.2 microns in diameter at the exit fiber tip. Sub-micron defects from contamination, polishing or AR coating the fiber will have catastrophic consequences at high power. In this type of system the fiber must also be angle polished and non-coaxial to the package in order to reduce back reflections

FUSION™ FIBER COLLIMATOR WITH HYTREL TUBING



FUSION™ FIBER COLLIMATOR WITH PVC / KEVLAR TUBING



FUSION™ FIBER COLLIMATOR WITH STAINLESS STEEL ARMOR



Part Number	Beam Dia (1/e ² , min)	Divergence (mRad)	Housing Diameter	Housing Length	GRADIUM Lens Used
10265164	1.0±0.1	1.9	9.5mm	13.1mm	GPX5-5VC8
10275164					
10265264	2.0±0.2	0.96	9.5mm	18.4mm	GPX5-10VC8
10275264					
10265364	2.4±0.2	0.90	14.0mm	20.5mm	GPX10-12.5VC8
10275364					
10265464	3.6±0.4	0.50	14.0mm	25.6mm	GPX10-18VC8
10275464					
10265664	5.1±0.5	0.37	14.0mm	33.2mm	GPX10-25VC8
10275664					
10265764	6.0±0.6	0.30	14.0mm	38.1mm	GPX10-30VC8
10275764					
10265864	8.0±0.8	0.24	21.0mm	48.6mm	GPX15-40VC8
10275864					
10265964	12.0±1.2	0.18	25.0mm	72.1mm	GPX20-60VC8
10275964					

Custom Options Available

For custom designs and configurations please contact us

- Lens Cap
- Protective Lens Window
- Fiber Connectors
- Other Design Wavelengths
 - 1550nm
 - 1310nm
 - 1064nm
 - 980nm
 - 780nm
 - 633nm
 - 546nm
 - 532nm
 - 408nm
 - Others
- Other Fibers Available
 - Corning SMF 28
 - Corning TB-II
 - Corning PM 15-U25A
 - Corning 50/125 MMF
 - Nufern LMA-GDF-20-400
 - Nufern 1060-XP
 - Nefern 1550B-HP
 - Nufern 630-HP
 - HWT-FIB-05D02
 - INO50301
 - Fujikura SM.98-P-6/125
 - UV/UV-400

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1550nm Beam Delivery Optics

Center Wavelength	1550nm
Return Loss	-55dB
Pointing Accuracy	1° Maximum
Beam Roundness	> 90%
M²	< 1.2
Transmission	> 97%
Working Distance	Infinity
Storage Temperature	-40°C to +85°C
Fiber Type	Corning SMF28
Fiber Length	5 meters

Note : Above specifications are measured and guaranteed at room temperature (25°C) only.

Part Number	Cable Type	Beam Diameter (1/e ² , mm)	Divergence (mRad)	Housing Diameter	Housing Length	GRADIUM Lens Used
10255100	0.9mm Hytel	0.9±0.1	3.1	9.5mm	13.1mm	GPX5-5VDB3
10265100	3.0mm PVC/Kevlar					
10275100	3.0mm Stainless Steel					
10255200	0.9mm Hytel	1.8±0.2	1.6	9.5mm	18.4mm	GPX5-10DB3
10265200	3.0mm PVC/Kevlar					
10275200	3.0mm Stainless Steel					
10255300	0.9mm Hytel	2.2±0.2	1.3	14.0mm	20.5mm	GPX10-12.5DB3
10265300	3.0mm PVC/Kevlar					
10275300	3.0mm Stainless Steel					
10255400	0.9mm Hytel	3.3±0.3	0.82	14.0mm	25.6mm	GPX10-18DB3
10265400	3.0mm PVC/Kevlar					
10275400	3.0mm Stainless Steel					
10255600	0.9mm Hytel	4.5±0.5	0.59	14.0mm	33.2mm	GPX10-25DB3
10265600	3.0mm PVC/Kevlar					
10275600	3.0mm Stainless Steel					
10255700	0.9mm Hytel	5.4±0.5	0.49	14.0mm	38.1mm	GPX10-30DB3
10265700	3.0mm PVC/Kevlar					
10275700	3.0mm Stainless Steel					
10255800	0.9mm Hytel	7.3±0.7	0.38	21.0mm	48.6mm	GPX15-40DB3
10265800	3.0mm PVC/Kevlar					
10275800	3.0mm Stainless Steel					
10255900	0.9mm Hytel	10.8±1.1	0.24	25.0mm	72.1mm	GPX20-60DB3
10265900	3.0mm PVC/Kevlar					
10275900	3.0mm Stainless Steel					