

Polarization Maintaining Fibers

For gyroscope and sensor

The IXF-PMG family includes high performance Polarization Maintaining Fibers that are specifically designed for integration into Fiber Optic Gyroscopes on or above the earth.

Fiber diameter control is critical during coil winding; our fibers exhibit very high consistency / accuracy of the coating diameter not only in each batch, but also from batch to batch..

The IXF-FOCS family of fibers consists of advanced performances Polarization Maintaining Fibers specially designed for Fiber Optic Current Sensors.

Elliptical core design is available for low temperature dependence application

iXblue proposes a range of standard PM Fibers with 125 μm cladding diameter.

Customized coatings and wavelengths available upon request.

Key Features

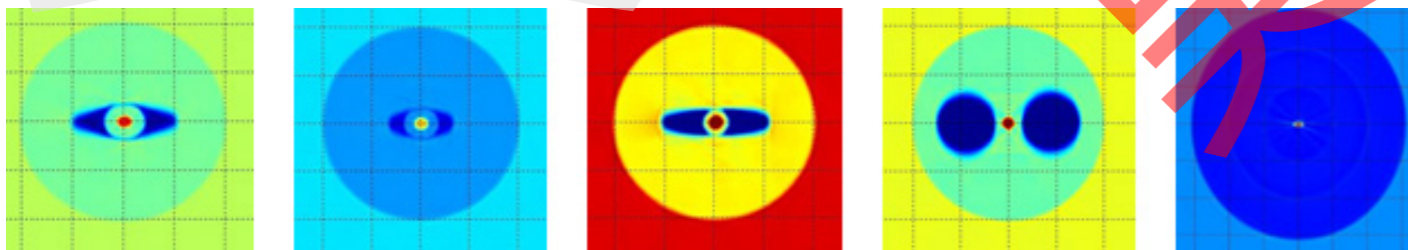
- Panda & tiger designs available
- Qualified by international inertial sensing manufacturers
- Design for space environment available
- Highly birefringence
- High polarization extinction in coiled applications
- Zero twist
- Round core
- Cladding diameter: 40, 80, 125 μm, other diameters on request
- Various coating diameters, tuned to customers specifications
- High stability coating diameter along each batch and from batch to batch

Applications

- Fiber optic current sensor
- Fiber optic gyroscopes

Related Products

- Polarizing fibers



Main Specifications

IXF-PMG family for Fiber Optic Gyroscopes: Terrestrial environment

Product Name	Operating Wavelength (nm)	Design	Cladding Diameter (μm)	Coating Diameter (μm)	Beat Length* (mm)	Core NA (+/-0.02)	MFD** (μm)	Attenuation** (dB/km)	Cutoff Wavelength (nm)
IXF-PMG-820-40-HNA	820	Tiger	40 +/- 1	105 +/- 5	< 2.3	0.18	4.0 +/- 0.5	< 10	< 770
IXF-PMG-820-80	820	Tiger	80 +/- 1	170 +/- 5	< 1.6	0.16	4.3 +/- 0.5	< 5	< 770
IXF-PMG-820-80-P	820	Panda	80 +/- 1	170 +/- 5	< 1.6	0.16	4.5 +/- 0.5	< 5	< 770
IXF-PMG-1310-80	1310	Tiger	80 +/- 1	170 +/- 5	< 1.6	0.15	7.0 +/- 0.5	< 1	< 1250
IXF-PMG-1310-80-P	1310	Panda	80 +/- 1	170 +/- 5	< 1.6	0.15	7.0 +/- 0.5	< 1	< 1250
IXF-PMG-1550-80-P019	1550	Panda	80 +/- 1	170 +/- 5	< 1.6	0.19	6.7 +/- 0.5	< 1	< 1480
IXF-PMG-BC-1550-80-019	1550	Tiger	80 +/- 1	172 +/- 2	< 1.5	0.19	6.7 +/- 0.5	< 1	< 1480
IXF-PMG-BC-1550-80-019-LS	1550	Tiger	80 +/- 1	128 +/- 2	< 1.5	0.19	6.7 +/- 0.5	< 1	< 1480

* Calculated at 633 nm
** Measured at Operating Wavelength

IXF-PMG family for Fiber Optic Gyroscopes: Space environment

Product Name	Operating Wavelength (nm)	Design	Cladding Diameter (μm)	Coating Diameter (μm)	Beat Length* (mm)	Core NA (+/-0.02)	MFD** (μm)	Attenuation** (dB/km)	Cutoff Wavelength (nm)
IXF-PMG-1550-80-019-E	1550	Tiger	80 +/- 1	172 +/- 2	< 1.5	0.19	6.7 +/- 0.5	< 1.4	< 1480
IXF-PMG-1550-80-019-E-LS	1550	Tiger	80 +/- 1	128 +/- 2	< 1.5	0.19	6.7 +/- 0.5	< 1.4	< 1480

* Calculated at 633 nm
** Measured at Operating Wavelength

IXF-FOCS family for Fiber Optic Current Sensor

Product Name	Operating Wavelength (nm)	Design	Cladding Diameter (μm)	Coating Diameter (μm)	Beat Length* (mm)	Core NA (+/-0.02)	MFD* (μm)	Attenuation* (dB/km)	Cutoff Wavelength (nm)
IXF-FOCS-1310-80-MOD	1310	Tiger	80 +/- 1	170 +/- 2	< 2.3	0.17	7.0 +/- 0.5	< 2	< 1270
IXF-FOCS-1310-80-DCO	1310	Tiger	80 +/- 1	170 +/- 2	< 3.5	0.15	7.0 +/- 0.5	< 1	< 1250
IXF-FOCS-1310-125	1310	Tiger	125 +/- 1	245 +/- 15	< 3.5	0.15	7.0 +/- 0.5	< 2	< 1250
IXF-FOCS-1310-125-EC	1310	E-Core	125 +/- 1	245 +/- 15	< 9	0.24	4.0 +/- 1	< 10	< 1250

* Measured at Operating Wavelength

IXF-PMF family for Telecoms, Sensor and Research applications

Product Name	Operating Wavelength (nm)	Design	Cladding Diameter (μm)	Coating Diameter (μm)	Beat Length* (mm)	Core NA (+/-0.02)	MFD* (μm)	Attenuation* (dB/km)	Cutoff Wavelength (nm)
IXF-PMF-980-125	980	Panda	125 +/- 1	250 +/- 15	< 2.7	0.12	6.6 +/- 1.0	< 2.5	< 950
IXF-PMF-1550-125	1550	Panda	125 +/- 1	250 +/- 15	< 5	0.12	10 +/- 1.0	< 1	< 1480

* Measured at Operating Wavelength

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