Photosensitive | Fibers

For Bragg Grating

iXblue Photonics is offering 2 different types of Photosensitive Single Mode Fibers :

IXF-PHO-CMF and IXF-PHO-CMF-PM are designed to suppress the cladding modes losses (CMF Cladding Mode Free). The fiber have a mode field diameter similar to most standard SMF with a relatively low photosensitivity that can be enhanced with Hydrogen loading. The Main benefit is the cladding modes suppression associated with an extremely low birefringence and a low phase noise, making it suitable for gratings for compensation of large dispersion.

IXF-PHO-CMS is designed to adapt the cladding mode offset (CMS Cladding Mode Shifted) in order to optimize the channel spacing. This fiber has very high germanium core concentration, with low attenuation compared to exotic boron doped core fibers, enablinghigh reflectivity gratings without hydrogen loading. CMS series will shift the cladding modes up to 10 nm.

Both Photosensitive fibers exhibit uniform and controlled photosensitivity to conventional UV radiation techniques. Similar fibers are available with polyimide coatings for harsh environment.
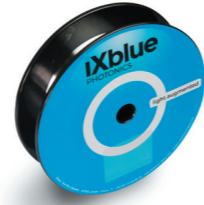
Key Features
· Excellent cladding mode suppression
· Mode field diameter matched to transmission

Applications cover
· Fiber bragg gratings
· Gain flattening filters
· Broadband filters
· Temperature and strain sensor

Related Products
· Photosensitive active doped fibers
· Laser packaging and pigtailing
· Polyimide Fibers

Main Specifications

Product Name	Core Diameter (µm)	Core NA	Attenuation @1550nm (dB/km)	Cut-off wavelength (nm)	MFD (µm)	Splice loss to SMF (dB)	Cladding Modes
IXF-PHO-CMF	8.2	0.13	< 0.5	< 1400	10.5 +/- 1	< 0.07	< 0.2 dB for FBG > 30 dB
IXF-PHO-CMF-PM	8.2	0.13	< 0.5	< 1450	10.5 +/- 1	< 0.07	< 0.2 dB for FBG > 30 dB
IXF-PHO-CMSp	5	0.21	< 2	< 1450	6 +/- 1	< 0.12	Shift up to 4 nm
IXF-PHO-CMS	2.8	0.37	< 10	< 1450	4 +/- 1	< 0.25	Shift up to 9 nm

Common specifcations
· Outside cladding diameter (µm): 125 +/- 2
· Coating diameter (µm): 245 +/- 15
· Core/Coat Conc Error (µm): < 15
· Proof Test Level (kpsi): 100

IXF-PHO-CMF fiber
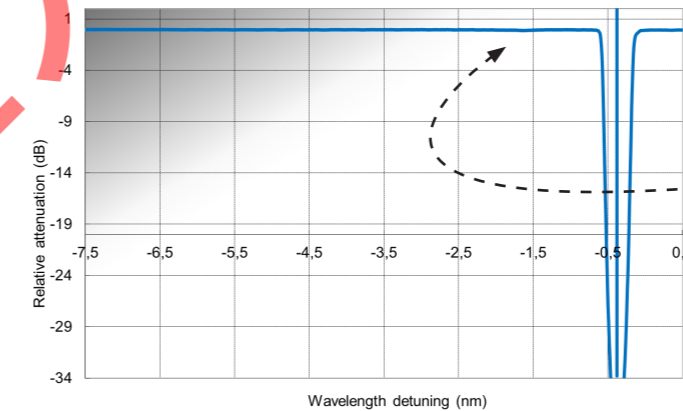
Cladding Modes Losses < 0.1 dB for - 35 dB saturated Bragg Grating