

# High Power Faraday Isolators with 3.5 mm and 5 mm Aperture, XP Series

With extensive experience and innovations in optical solutions for medium to high power lasers and laser systems for industrial applications, Qioptiq has designed the first ever Faraday Isolators with lowest absorption and low thermal lensing.

These Isolators are ideally suited for integration in medium to high power laser systems (CW laser power  $P \geq 50W$ ) in the wavelength range from red to NIR. The XP Series Isolators are uniquely designed with a low absorption magneto-optical material that results in significantly lower thermal lens effect and enhanced optical isolation than conventionally TGG based isolators used at such high laser power levels.

## Features

- Extreme compact design
- Isolation greater than 30 dB
- Low thermal lens effect
- Low absorption magneto-optical crystal
- Strong rare earth magnet
- Mounting: via four M2 threaded holes at the bottom side and at backside
- Damage threshold  $8.5 \text{ J/cm}^2$  at 8 ns 1064 nm

## Custom Options

- Custom wavelengths and specifications upon request
- Available with integrated wave-plate upon request

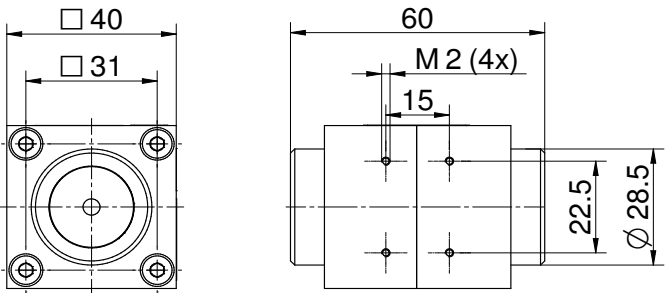


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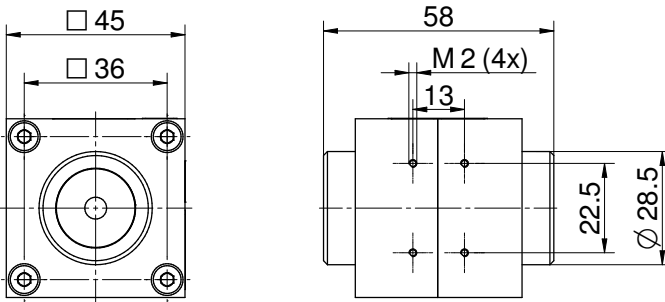
Product	Isolation  (dB)	Transmission at design wavelength (%)	Transmission at boundary wavelength (%)	Tuning range (typical)  (nm)	Aperture Ø  (mm)	Dimensions  (mm)	Part Number
FI-1060-3SC XP	≥ 30	≥ 94	≥ 85	1030-1090	3.5	40x40x60	8451-109-000-30
FI-1060-5SC XP	≥ 30	≥ 94	≥ 85	1030-1090	5	45x45x58	8451-109-000-29

Product	Damage threshold @ 1.2 ps pulses (J/cm²)	Damage threshold @ 8 ns pulses (J/cm²)	Part Number
FI-1060-3SC XP	0.6 @ 1060 nm	8.5 @ 1060 nm	8451-109-000-30
FI-1060-5SC XP	0.6 @ 1060 nm	8.5 @ 1060 nm	8451-109-000-29

Subject to technical changes



FI-1060-3SC XP



FI-1060-5SC XP

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