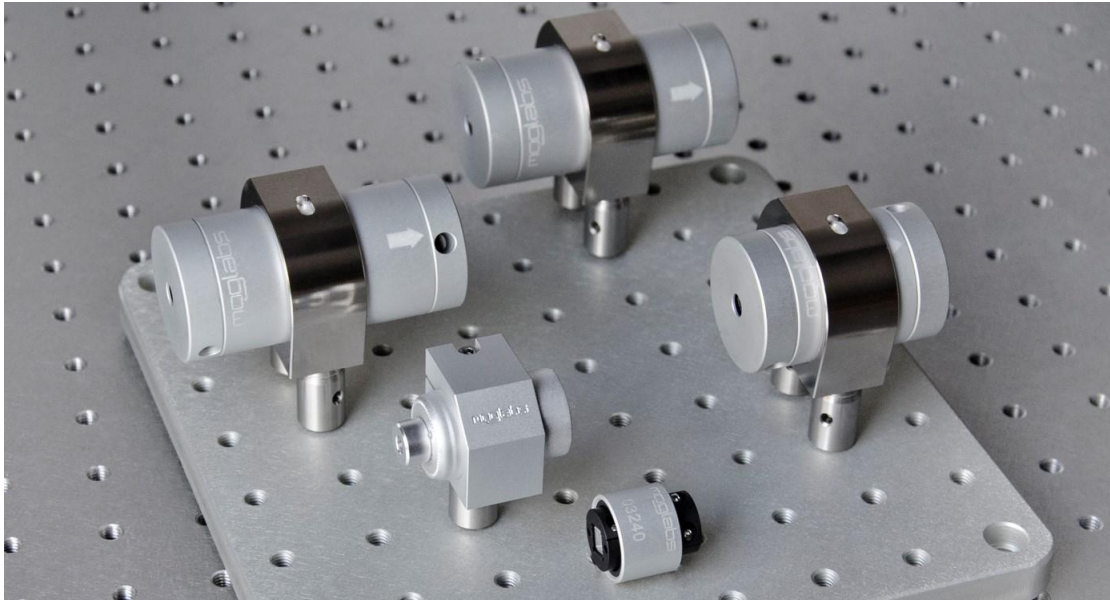


## Faraday optical isolators



MOGLabs Faraday isolators provide the outstanding performance needed for demanding external cavity diode laser applications, including coupling to single-mode fibres and high finesse optical cavities. High isolation is essential to prevent frequency instability caused by feedback into the laser cavity.

Single and two-stage options are available, with isolation typically >38 dB and >64 dB, and transmission typically well over 90%.

### **Features**

- High isolation:
  - >38 dB (typically 43 dB) single-stage
  - >60 dB (typically 67 dB) dual-stage
- High transmission
  - >85% (typically >92%) single-stage
  - >80% (typically >90%) dual-stage
- High power (40W)
- Large aperture
  - 5mm; specs guaranteed for 4.7mm
- Exit ports for reflected polarisation
- Wavelength tunable
- Compact

# MOGLabs Faraday Isolators

## MFS Single-stage isolators

Wavelength centre	Wavelength range	Size (Ø x L)
MFS370	±10 nm*	22 x 34 mm
MFS405, MFS425, MFS460	±10 nm	22 x 24 mm
MFS650, MFS690, MFS730	±20 nm	35.5 x 50 mm
MFS780	±30 nm	35.5 x 51 mm
MFS835, MFS885	±25 nm	35.5 x 59 mm
MFS945	±40 nm	40.5 x 61 mm
MFS1150, MFS1250, MFS1350	±50 nm	22 x 34 mm

### Specifications

Aperture	Performance guaranteed over 4.7 mm clear aperture**
Isolation	>38 dB; typically >43 dB (except MFS370 >35dB)
Transmission	>85%; typically >92%
Power	40 W (4 kW/cm <sup>2</sup> )

*Note: transmission reduced away from centre of wavelength tuning range.*

## MFD Dual-stage isolators

Wavelength centre	Wavelength range	Size (Ø x L)
MFD660, MFD700, MFD740	±20 nm	35.5 x 74 mm
MFD780	760 – 810 nm	35.5 x 74 mm
MFD820	800 – 870 nm	35.5 x 73 mm
MFD880	860 – 930 nm	35.5 x 106 mm
MFD950	930 – 1000 nm	35.5 x 108 mm
MFD1020	±30 nm	53.5 x 92 mm
MFD1070	1050 – 1100 nm	53.5 x 92mm

### Specifications

Aperture	Performance guaranteed over 4.7 mm clear aperture
Isolation	>60 dB; typically >67 dB
Transmission	>80%; typically >90%
Power	40 W (4 kW/cm <sup>2</sup> )

*Note: transmission reduced away from centre of wavelength tuning range.*

Wavelength centre	Wavelength range	Size (Ø x L)	Isolation	Transmission
EOT4-500, EOT4-1020, EOT4-1045	±20 nm	38 x 75 mm	33 dB min./37 dB typ.	95% min.
EOT5-1020, EOT5-1045	±20 nm	38 x 78 mm	33 dB min./37 dB typ.	95% min.

\* To be confirmed

\*\* 4mm clear aperture for MFS1150, MFS1250, MFS1350