



## 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 >40 dB and >64 dB, and transmission typically well over 90%.

### *Features*

- High isolation:
  - >40 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

### Wavelengths

		Size (Ø x L)
MFS405	395 – 425 nm	22 x 24 mm
MFS425	415 – 435 nm	22 x 24 mm
MFS461	450 – 470 nm	22 x 24 mm
MFS650	630 – 670 nm	35.5 x 50 mm
MFS690	670 – 710 nm	35.5 x 50 mm
MFS730	710 – 750 nm	35.5 x 50 mm
MFS780	750 – 810 nm	35.5 x 51 mm
MFS835	810 – 860 nm	35.5 x 59 mm
MFS885	860 – 910 nm	35.5 x 59 mm
MFS945	905 – 985 nm	40.5 x 61 mm
MFS1150	1100 – 1200 nm	22 x 34 mm
MFS1250	1200 – 1300 nm	22 x 34 mm
MFS1350	1300 – 1400 nm	22 x 34 mm

### Specifications

Aperture	Performance guaranteed over 4.7 mm clear aperture
Isolation	>38 dB; typically >43 dB
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

### Wavelengths

		Size (Ø x L)
MFD660	640 – 680 nm	35.5 x 74 mm
MFD700	680 – 720 nm	35.5 x 74 mm
MFD740	720 – 760 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	990 – 1050 nm	53.5 x 92 mm
MFD1070	1050 – 1100 nm	53.5 x 92 mm

### 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.*