

FastPulse Technology, Inc.

LASERMETRICS® DIVISION

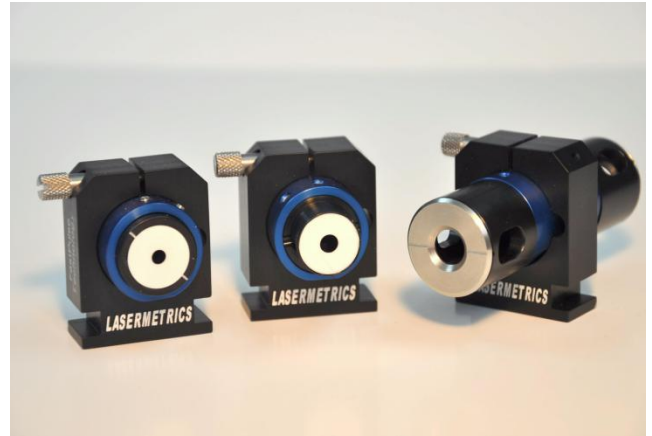
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SERIES 2110 OPTICAL ISOLATORS AND FARADAY ROTATORS IR 1.85-3.4 μm

FastPulse Technology's Optical Isolator product line is designed for today's new laser wavelengths and power levels. Each model has been optimized in the region for lowest absorption. In the past decade numerous advances have made lasers in this region practical for many new applications. The 1.85-3.4 μm range requires several types of Faraday rotator materials. Each material used in this series has the properties needed for isolator design optimization. The polarizer choices likewise are based on the wavelength of interest. It is not possible to list all the possible design options for this region. Please contact us. We will quickly configure our designs for your wavelength of interest.



Isolation values typically exceed 33 dB at the center wavelength. Materials are selected for lowest absorption and scatter. The associated magnets allow most designs to share the 25.4 mm diameter housing profile. Custom Isolators will be quoted and built to order. OEM designs can be optimized to meet size requirements.

FastPulse Technology also offers Series 2115 High Power TEC & Liquid Cooled Optical Isolators for the 1.9-2.1 μm region incorporating our unique 1.0-10 μm broadband ZnSe polarizer design.

Wavelength	1940 nm	2000 nm	2000 nm	2050 nm	2090 nm
Part Number	ISO-5-1940-MP	ISO-3-2000-MP	ISO-5-2000-MP	ISO-5-2050-MP	ISO-5-2090-MP
Aperture	4.5 mm	3 mm	4.5 mm	4.5 mm	4.5 mm
Bandwidth	1850-2000 nm	1910-2100 nm	1940-2060 nm	2000-2100 nm	2030-2130 nm
Power	10 W	5 W	20 W	20 W	20 W
Isolation	35-40 dB	34-40 dB	34-40 dB	34-40 dB	34-40 dB
Transmission	86-90%	88-92%	88-90%	88-90%	88-90%

See series 2115 isolators for larger aperture 1.9-2.1 μm models.

FastPulse Technology's 2.25 - 3.4 μm region isolators include standardized designs for uncommon wavelengths. Crystal polarizers MP series allow for higher power handling isolators. AP series absorptive polarizers provide low cost option for low power applications. New lasers include models based on Cr and Fe doped II-VI materials such as Cr:ZnSe. These offer researchers many new wavelength choices that are covered by our isolator models.

Wavelength	2350 nm	2350 nm	2350 nm	2500 nm
Part Number	ISO-5-2350-AP	FR-5-2350	ISO-5-2350-MP	ISO-5-2500-MP
Aperture	4.5 mm	4.5 mm	4.5 mm	4.5 mm
Bandwidth	2250-2450 nm	2350 nm	2250-2450 nm	2400-2600 nm
Power	200 mW	10 W	5 W	5 W
Isolation	30-37 dB	n/a	28-35 dB	28-35 dB
Transmission	86-90%	95-97%	86-89%	~ 83%

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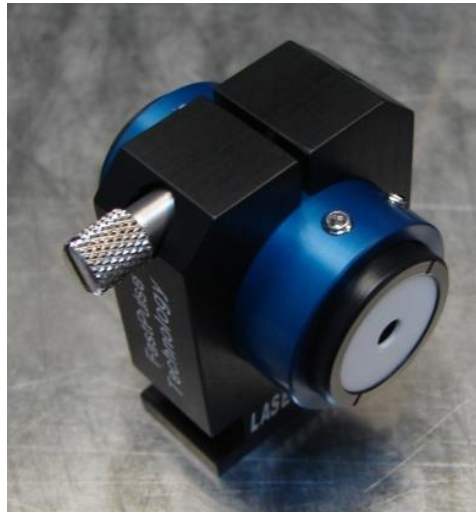
Wavelength	2700 nm	2700 nm	2800 nm	2900 nm	2940 nm
Part Number	ISO-5-2700-AP	ISO-5-2700-MP	ISO-5-2800-MP	ISO-5-2900-MP	ISO-5-2940-MP
Aperture	4.5 mm	4.5 mm	4.5 mm	4.5 mm	4.5 mm
Bandwidth	2600-2800 nm	2600-2800 nm	2750-2870 nm*	2850-3000 nm*	2900-3000 nm
Power	200 mW	5 W	5 W	5 W	> 5 W
Isolation	35-40 dB	n/a	28-35 dB	28-35 dB	28-35 dB
Transmission	85-88%	85-88%	84-88%	~ 85 %	~ 87%

* Small absorption bands ~10% may exist in 2870 nm region please contact us to discuss.

Wavelength	3000 nm	3200 nm	3250 nm	3390 nm
Part Number	ISO-5-3000-MP	ISO-5-3200-MP	ISO-3-3250-MP	ISO-3-3390-MP
Aperture	4.5 mm	4.5 mm	2.7 mm	2.7 mm
Bandwidth	2950-3100 nm	3100-3250 nm	3150-3300 nm	3300-3420 nm
Power	5 W	5 W	5 W	1 W
Isolation	28-35 dB	28-35dB	28-35 dB	28-35 dB
Transmission	85-88%	~ 85%	~ 85%	~ 84%

Please contact us for larger aperture models up to 8 mm and OEM smaller aperture models.

Faraday rotators are available for all wavelengths in this region.



ISO-5-2700-AP



ISO-5-2940-MP

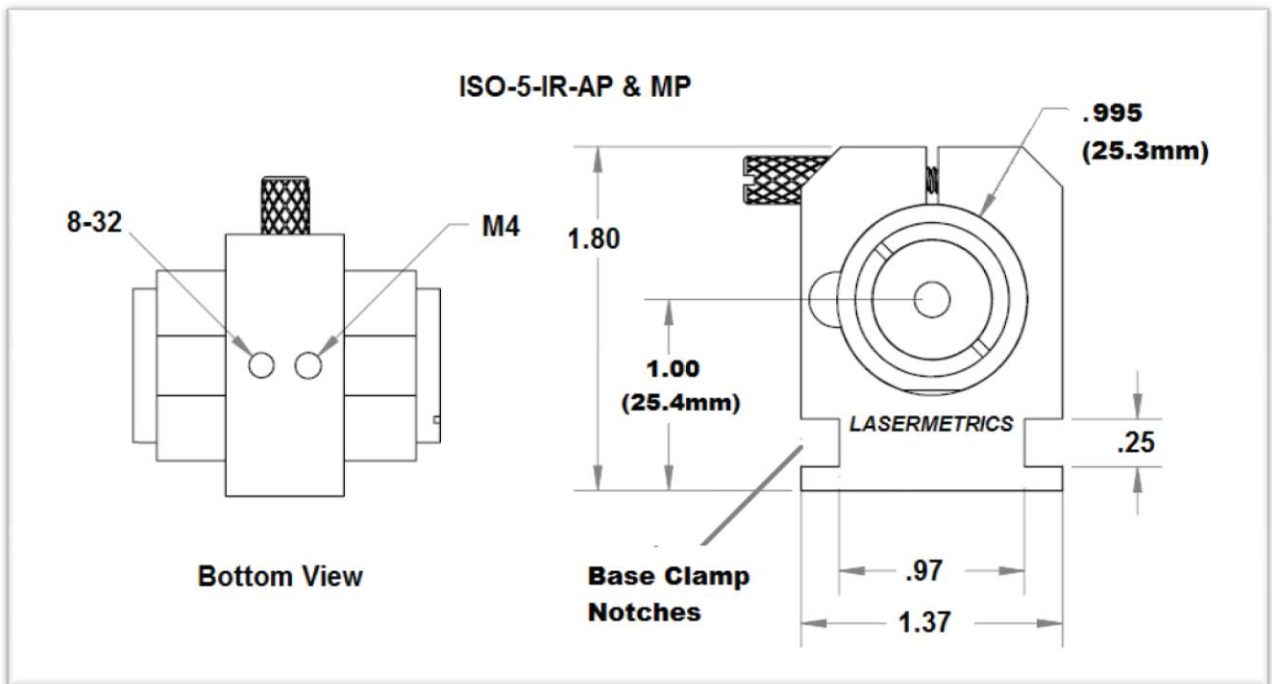
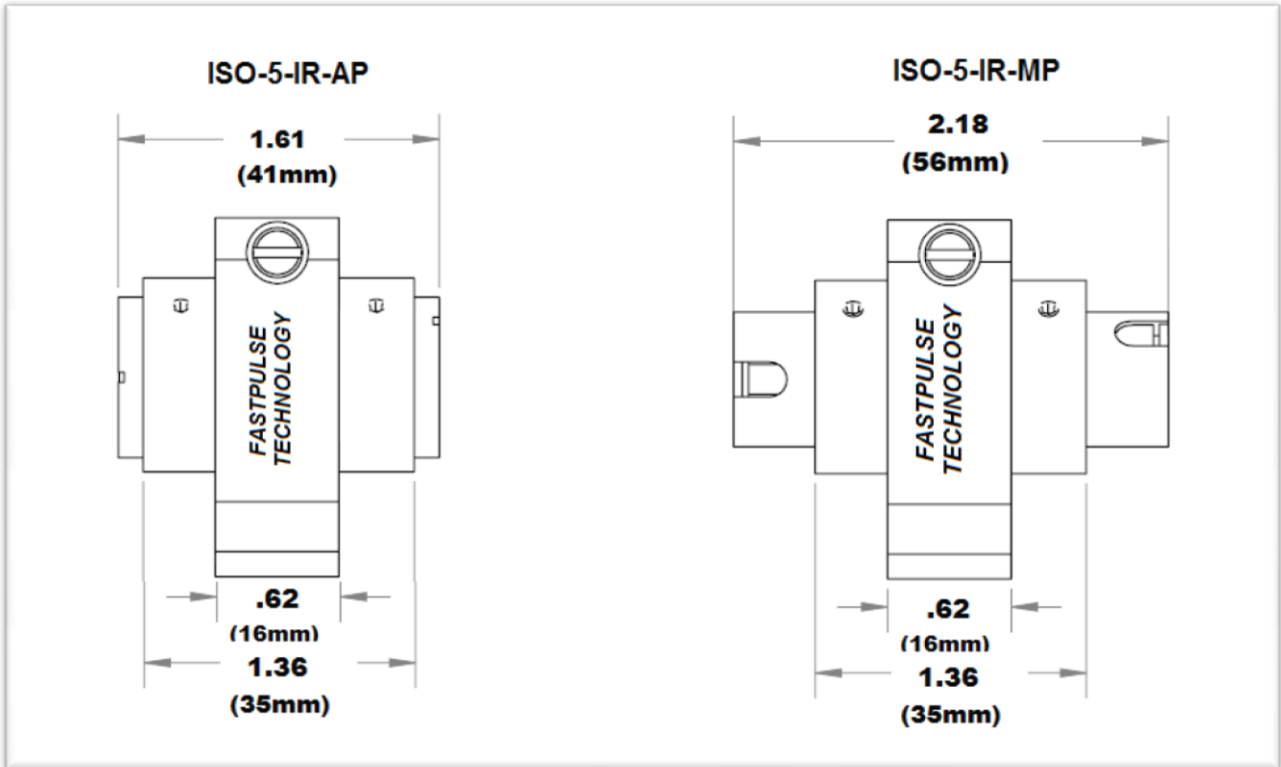
Isolator Model Product Line

- 2110** IR region 1.85 - 3.5 μm Models. 2 μm Models, 2940 nm, 3390 nm included.
- 2115** Large Aperture and Actively Cooled 1.9 - 2.1 μm Optical Isolators.
- 2117** SS Vacuum compatible 1390 nm & 1550-1650 nm
- 2120** Miniature 1064 nm and 1550 nm Isolator Models
- 2135** TGG models 1064 nm
- 2150** TGG models Low power 633 nm, 670 – 700 nm, 780 – 920 nm
- 21xx** SWIR 1550 nm S/C/L/U bands to 1670nm, Apertures 1.7-8 mm (Series 2110, 2115, 2117, 2120)

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**ISO-5-IR-AP MODELS WITH "AP" ABSORPTIVE POLARIZERS
ISO-5-IR-MP ISOLATOR WITH CRYSTAL POLARIZERS**



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