

Standard, Large Aperture and High Power Faraday Rotators



Standard Models

Passat manufactures a range of Faraday rotators/isolators distinctive for their compact size, low price, high transparency, and high extinction (35-40 dB). These characteristics result from careful control of the uniformity of the magnetic field.

Our standard models (pictured above) operate at 1064 nm. They are able to operate at average power levels of up to 20 W for the Tb-glass models and 50 W for the TGG crystal models. For 1 ns pulses, the damage threshold can be as high as 5-7 GW/cm². These models are suitable for both CW and pulsed applications. The specifications for selected models are listed in the table below.



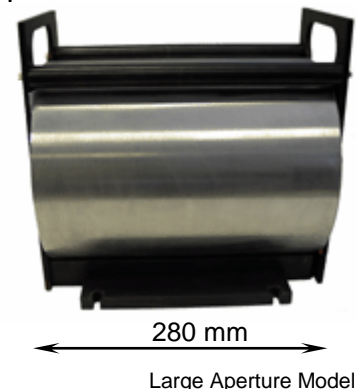
High Average Power Model

At higher powers the extinction drops dramatically due to heating of the rod. As the applications for more powerful lasers expand, this becomes a serious limitation.

To fill the gap, Passat has developed a unique new family of cooled Faraday rotators specially designed for integration into high-power laser systems (up to 1 kW), see picture at the left. Specifications are available on request.

In addition we can offer relatively inexpensive rotators and isolators operating at any given wavelength within the 213-1400 nm range with clear apertures of up to 100 mm, as pictured to the right.

We can also offer rotators based on super-resistive Ce-doped glasses for high-power applications. These glasses can operate with intensities up to 20 GW/cm². Specifications for custom-built and broadband rotators and isolators are available upon request.



Large Aperture Model





Model	R6/1064-TGG	R65/1053-G	R94/1053-G
Clear aperture	6 mm	65 mm	94 mm
Operative wavelength	1064±10 nm	1053±10 nm	1053±1 nm
Extinction	≥35 dB	≥35 dB	>27 dB
Transmission	≥98%	≥97%	≥97%
Magneto-optical material	TGG crystal	Tb-doped glass	Tb-doped glass
Dimensions	∅ 45 mm x 42 mm	∅ 170mm x 300mm	215x225x280 mm ³

All specifications subject to change without notice.

Passat USA

720 N. Hammonds Ferry Rd.
Linthicum, MD 21090, USA
Tel : (410) 609-2006
Fax : (360) 323-6971
E-mail : info@passatinc.com

Passat Canada

116D Viceroy Rd. Unit 1-4
Concord, ON L4K 2M4, Canada
Tel : (905) 695-1088
Fax : (866) 422-0959
E-mail : info@passatltd.com

www.passatltd.com