

1030-1064nm Faraday Rotators and Isolators

Newport's 1030, 1050, and 1064nm Faraday Rotators rotate the plane of polarized light 45° in the forward direction and an additional 45° of non-reciprocal rotation in the reverse direction while maintaining the light's linear polarization. The Faraday Isolator shields lasers from destabilizing and potentially destructive back-reflected light from interfaces on downstream optics or back-scattered ASE from optical amplifiers. Based on high Verdet constant, low absorption coefficient Terbium Gallium Garnet (TGG), and developed to work with up to 50W of average input power in the 1μm wavelength range, Newport isolators provide the ultimate protection for polarized output from Nd- or Yb-doped crystal, glass, and fiber lasers.



Benefits:

- Decouple Nd and Yb laser oscillators from ASE created by amplifiers
- Eliminate relaxation oscillations in mode-locked lasers due to optical feedback
- Eliminate frequency instability in seed sources

Features:

- All devices are completely passive, no tuning required
- All isolators contain escape ports; all rejected beams are deflected at 90°
- Optional λ/2 plate available for all isolators

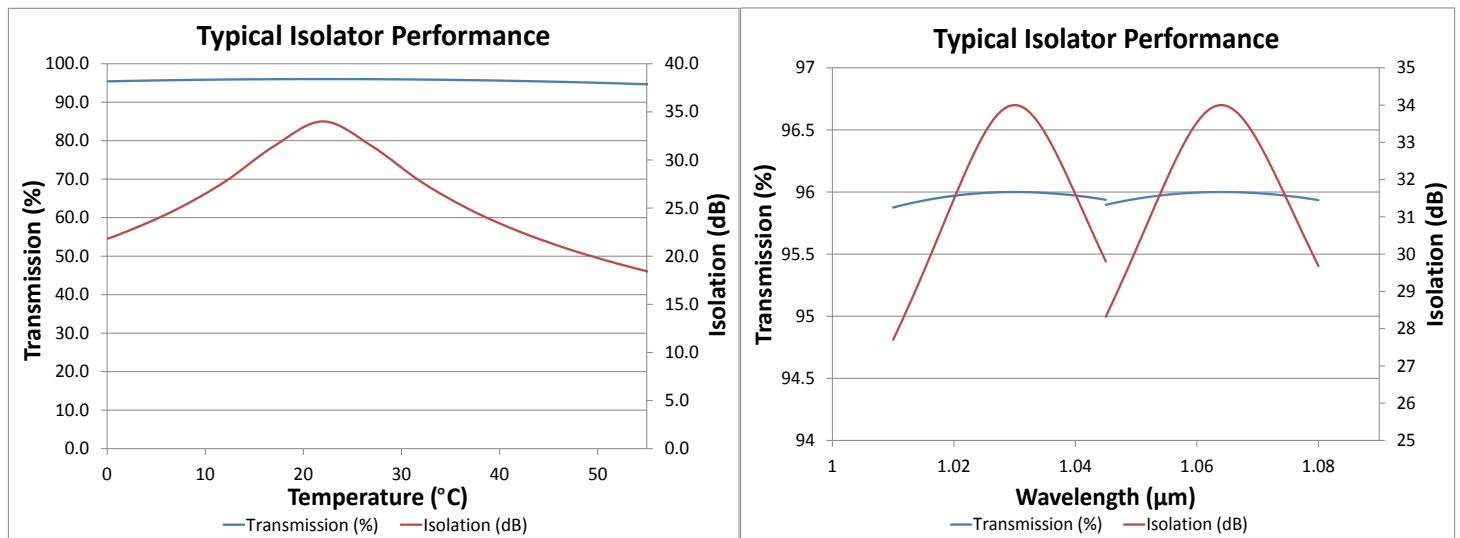
Specifications^a:

	ISO-FRDY-04-1030 ^b	ISO-FRDY-04-1050 ^b	ISO-FRDY-04-1064 ^b
Transmission at 22°C (%)	>92	>92	>92
Isolation at 22°C (dB)	>30	>30	>30
Rotation at Specified Wavelength	45° ± 2°	45° ± 2°	45° ± 2°
Pulsed Damage Threshold ^c	10J/cm ² at 10ns 1J/cm ² at 8ps	10J/cm ² at 10ns 1J/cm ² at 8ps	10J/cm ² at 10ns 1J/cm ² at 8ps

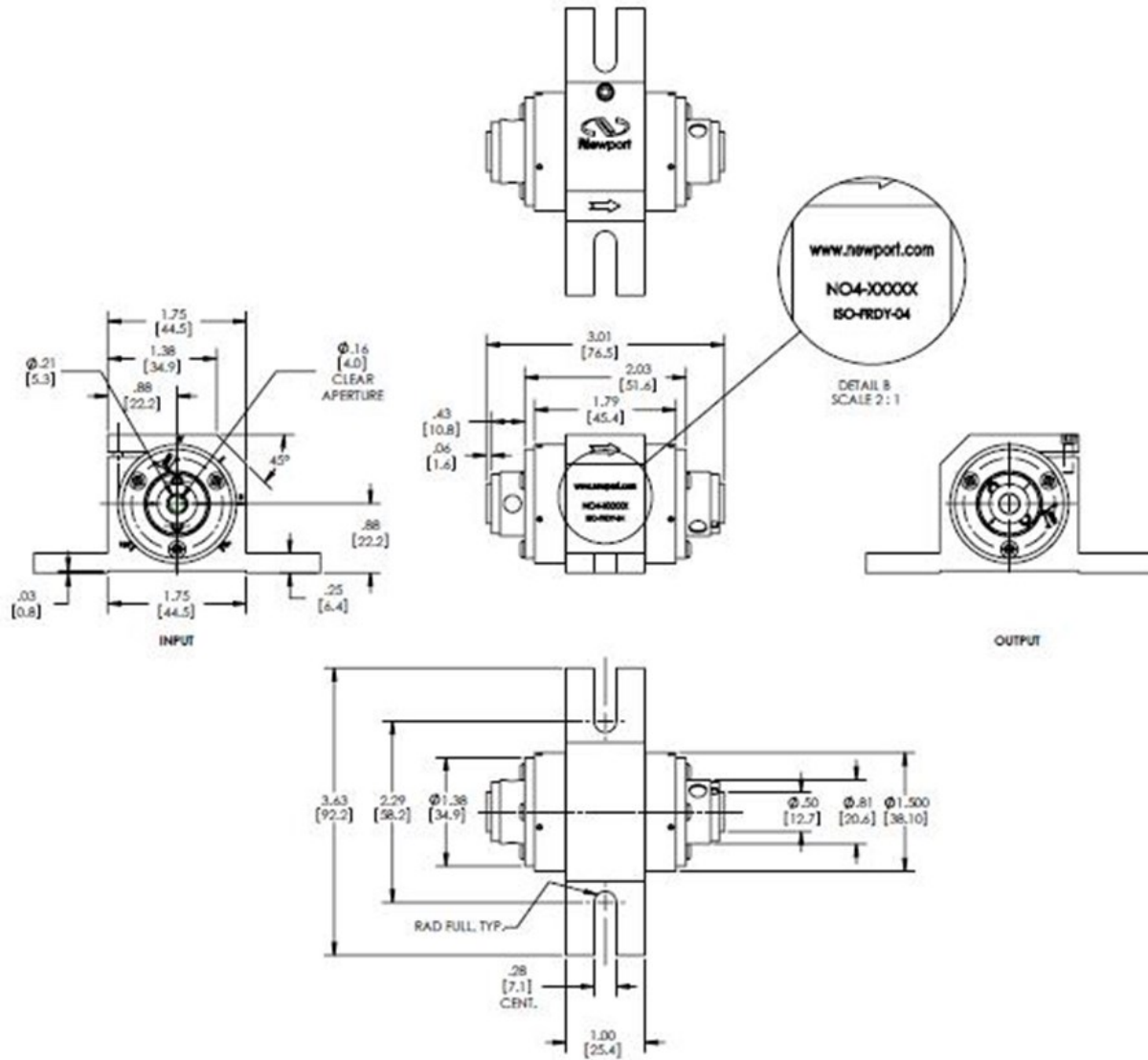
^a Product specifications are subject to change.

^b RoHS compliant.

^c CW damage threshold is 1MW/cm².



1030 – 1064nm Isolator Dimensions^a:



^a All dimensions in inches