FastPulse Technology, Inc.

LASERMETRICS® Division

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FARADAY ROTATOR/ ISOLATOR INSTRUCTIONS

DATE: Oct 18, 2016

Customer: nortus Optronics PO# BL160 1974
Model: ISO-5-1550-AP1-SS (2117 series) SN: 5730-2
Transmission: 97.4 % @ wavelength 1550 nm.
Isolation: 47.1 dB When tested with factory 2nd polarizer
Faraday rotation: 44.5 Deg @ wavelength 1550 nm.
Aperture: 4.5mm

SS: Stainless Steel housing, vacuum approved epoxies in assembly. Ultrasonic cleaning and vacuum bake out of parts prior to assembly and after assembly. Dry nitrogen purge and package for shipping.

***We certify the assembly has been made in accordance with contract and quoted description.**

FARADAY Rotator Polarizer Assembly

- The light enters the Faraday rotator and is rotated nominally 45 degrees. The input side of housing with scribe line is "north" end of magnet. The rotation is CCW as view from laser facing input of isolator. With input scribe line horizontal, when looking at rear side the polarization plane will be at 10:30 & 4:30 clock positions.

FIG 1: Isolator IO-5-1550-AP1 Input Face polarizer axis parallel to scribe line

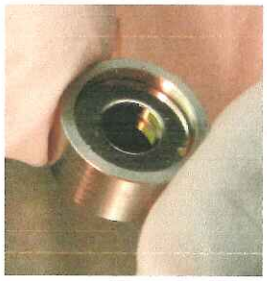

FIG 2: Output Face open end magnet and Faraday rotator.

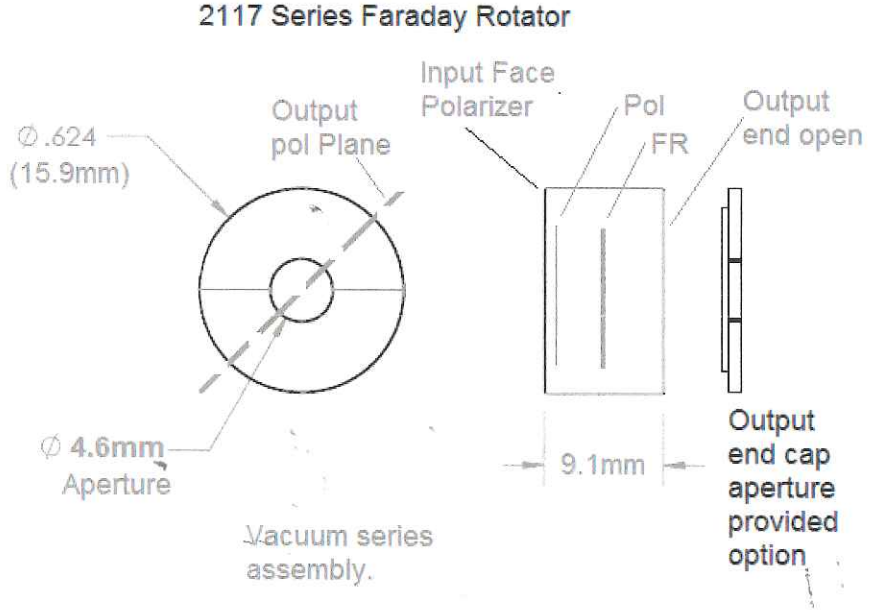

FIG 3: Faraday rotator with single polarizer Assembly. ISO-5-1550-AP1-SS

Do not position the assembly into any mount that is magnetically attracted as this will weaken the magnet and possible affect performance.

The output end cap is not required, it can provide extra aperture or protection for FR optic. This end cap is not factory installed for single polarizer Faraday assemblies.

The output end cap provided separately wrapped. The end cap can be bonded to cylinder body if desired. Use the provided 2 part epoxy, mix near equal amount (1:1, 3:5 to 5:3) ratios are adequate for this epoxy. The small jars labeled A & B are the 2 parts. After mixing wait 20 minutes before using and use within 60 minutes of mixing. Apply small <=1mm beads/dots to joint location in 4-7 places along diameter, allow to cure 24 hours or 6+ hours at 40-50C.

Fig 4 Shown with output end cap bond to FR assembly.

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FARADAY ROTATOR/ ISOLATOR INSTRUCTIONS

DATE: Oct 18, 2016

Customer: nortus Optronics PO# BL160 1974
Model: ISO-5-1550-AP1-SS (2117 series) SN: 5730-1
Transmission: 97.5 % @ wavelength 1550 nm.
Isolation: 50.4 dB When tested with factory 2nd polarizer
Faraday rotation: 44.5 Deg @ wavelength 1550 nm.
Aperture: 4.5mm

SS: Stainless Steel housing, vacuum approved epoxies in assembly. Ultrasonic cleaning and vacuum bake out of parts prior to assembly and after assembly. Dry nitrogen purge and package for shipping.

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FARADAY Rotator Polarizer Assembly

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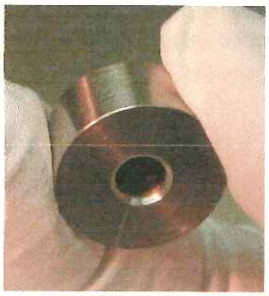

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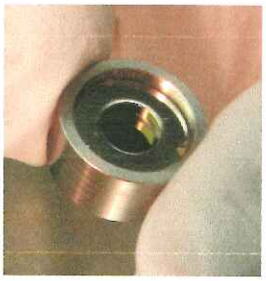

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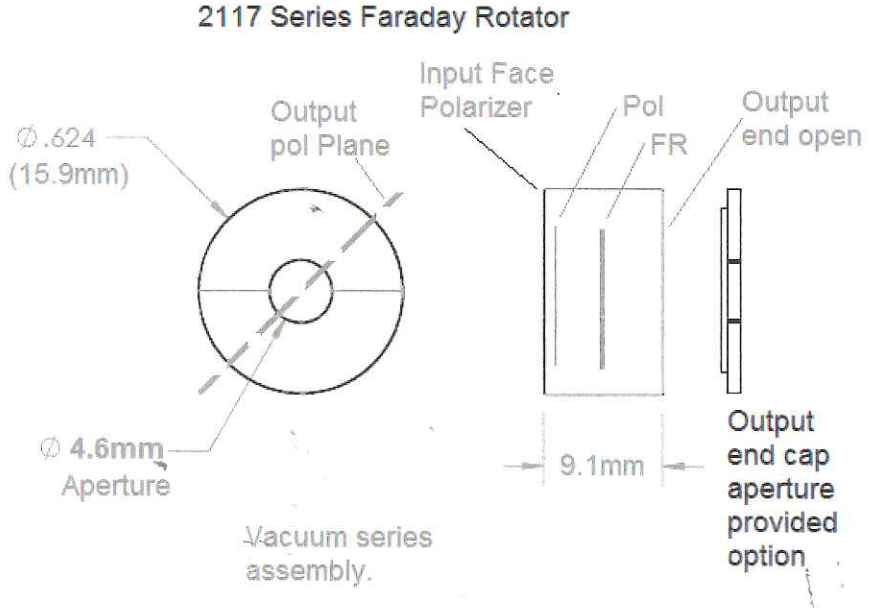

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