

Faraday isolator



DESCRIPTION

Faraday optical isolator is a passive optical device that only allows unidirectional light to pass through. It is generally composed of TGG crystal or glass, external magnetic field, polarizer, and polarizer. Its working principle: for the normal incident signal light, becomes linearly polarized light after passing through the polarizer. TGG crystal or glass together with the external magnetic field rotates the polarization direction of the signal light by 45 degrees (Faraday effect of magneto-optical crystal) and just makes its low loss pass through the polarizer placed at 45 degrees with the polarizer. For the reverse light, when the linearly polarized light from the polarizer passes through the TGG crystal, the deflection direction also rotates 45 degrees to the right, so that the polarization direction of the reverse light is orthogonal to the polarizer direction, completely blocking the transmission of the reflected light. The isolator without polarizer and polarizer is called the Faraday rotator. The function of the Faraday optical isolator is to prevent the adverse effects of backward transmitted light in the optical path on the light source and optical path system due to various reasons.

FEATURES

- High isolation
- Low insertion loss
- Multiple transparent holes
- Multi wavelength available
- Controllable output polarization

APPLICATIONS

- Film locked laser
- Semiconductor laser
- Optical measuring equipment
- Optical parametric oscillator
- Seed light amplification laser



Faraday isolator

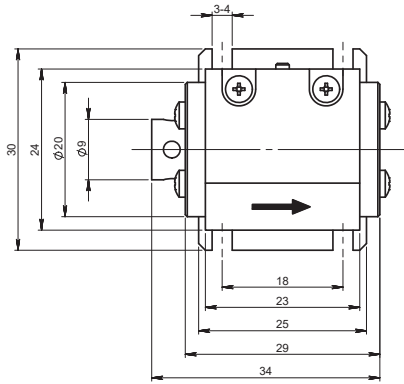
PARAMETER

| Model | Central Wavelength | Clear Aperture | Isolation @25°C | Transmissivity @25°C | Polariser | Damage threshold @10ns | Package type |
|------------------------|--------------------|----------------|-----------------|----------------------|-----------|------------------------|--------------|
| CL-ISO-532-5 | 532nm | 5mm | > 30dB | > 90% | PBS Cube | 3.5J/cm ² | 2# |
| CL-ISO-633-2.5 | 633nm | 2.5mm | > 30dB | > 90% | PBS Cube | 3.5J/cm ² | 1# |
| CL-ISO-633-5 | 633nm | 5mm | > 30dB | > 90% | PBS Cube | 3.5J/cm ² | 2# |
| CL-ISO-780-2.5 | 780nm | 2.5mm | > 30dB | > 90% | PBS Cube | 3.5J/cm ² | 1# |
| CL-ISO-780-5 | 780nm | 5mm | > 30dB | > 90% | PBS Cube | 3.5J/cm ² | 2# |
| CL-ISO-785-2.5 | 785nm | 2.5mm | > 30dB | > 90% | PBS Cube | 3.5J/cm ² | 1# |
| CL-ISO-785-5 | 785nm | 5mm | > 30dB | > 90% | PBS Cube | 3.5J/cm ² | 2# |
| CL-ISO-1030-2.5 | 1030nm | 2.5mm | > 30dB | > 90% | PBS Cube | 5J/cm ² | 3# |
| CL-ISO-1030-5 | 1030nm | 5mm | > 30dB | > 90% | PBS Cube | 5J/cm ² | 3# |
| CL-ISO-1064-2.5 | 1064nm | 2.5mm | > 30dB | > 90% | PBS Cube | 5J/cm ² | 3# |
| CL-ISO-1064-5 | 1064nm | 5mm | > 30dB | > 90% | PBS Cube | 5J/cm ² | 3# |

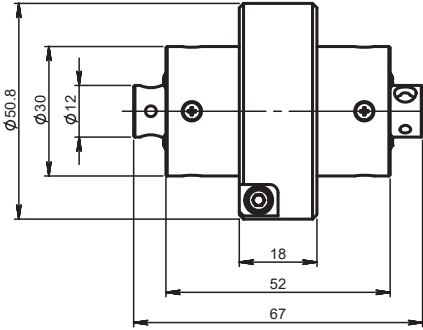
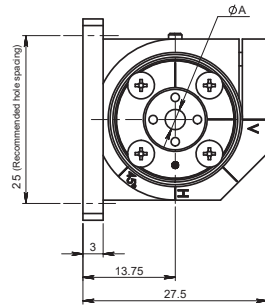


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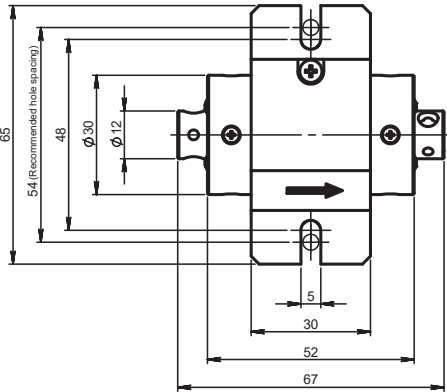
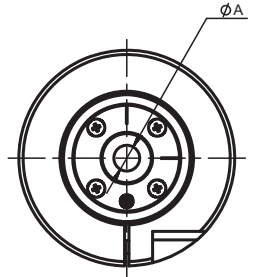
STRUCTURE DIAGRAM



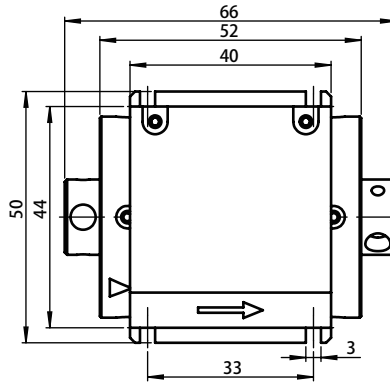
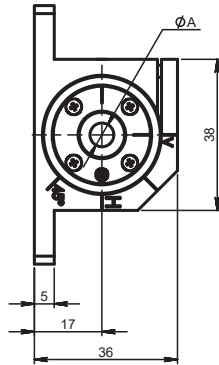
1# Packaged isolator



2# Package isolator (standard adapter)



2# Package isolator (optional fixed base)



3# Packaged isolator

