

## Ka-Band Faraday Isolator

### Description:

These Faraday isolators are offered to cover the frequency range of 26.5 to 40.0 GHz. These isolators are constructed with a longitudinal magnetized ferrite rod to provide Faraday rotation when the RF signal is presented. Although they have slightly higher insertion loss than their counterpart, the full band junction isolators (SNF series), their isolation is at least 10 dB higher. In addition, these Faraday isolators cover broader frequency range and possess less insertion phase variation cross the entire waveguide band. These characteristics make them ideally suited for broadband applications, especially in test labs and instrumentations.



### Features:

- Broadband operation
- Good insertion loss
- High isolation

### Applications:

- Port isolation
- Test setups
- Test instrumentations

### Device Specifications:

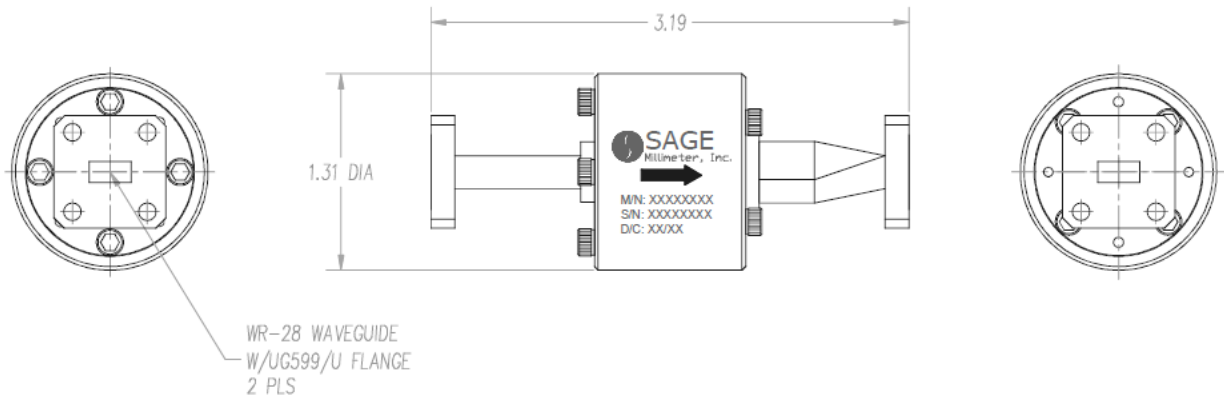
| Parameter       | Minimum  | Typical | Maximum  |
|-----------------|----------|---------|----------|
| Frequency Range | 26.5 GHz |         | 40.0 GHz |
| Insertion Loss  |          |         | 1.2 dB   |
| Isolation       |          | 28.0 dB |          |
| VSWR            |          | 1.4:1   |          |
| Power Handling  |          |         | 2.0 W    |

### Ports Specifications:

| Port   | Connector                            | Absolute Maximum Ratings |
|--------|--------------------------------------|--------------------------|
| Input  | WR-28 Waveguide with UG-599/U Flange | 33.0 dBm                 |
| Output | WR-28 Waveguide with UG-599/U Flange | N/A                      |

## Ka-Band Faraday Isolator

**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches)



### Note:

- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.
- All data are presented using a limited sample lot, actual data may vary unit to unit.
- All testing was performed under 25°C case temperature.

### Caution:

- Exceeding absolute maximum ratings of the detector will damage the isolator.
- Any foreign objects into the waveguide will destroy the Faraday isolator.