

## U-Band Micrometer Driven Phase Shifter, Head Locking Screw, 40 to 60 GHz

### Description:

**Model STP-18-19-M1** is a U-Band micrometer driven phase shifter that covers the frequency range of 40 to 60 GHz. The phase shifter features a precision micrometer dial with a knurled head locking screw, which allows for stable, repeatable settings that can be locked at any phase shift value. The phase shifter is an ideal piece of equipment in waveguide systems where broadband phase shifting is required. The phase shifter exhibits a 0.5 dB typical insertion loss and an adjustable phase range of up to 180 degrees.



### Features:

- Full Band Coverage
- Head Locking Screw
- Precision Machined Housing
- Convenient Mechanical Setting

### Applications:

- Test Lab
- Instrumentations
- Manual Test Set

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	40 GHz		60 GHz
Insertion Loss		0.5 dB	
Phase Shifting Range		0 to 180°	
Return Loss		20 dB	
Power Handling		0.75 W (CW)	1 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

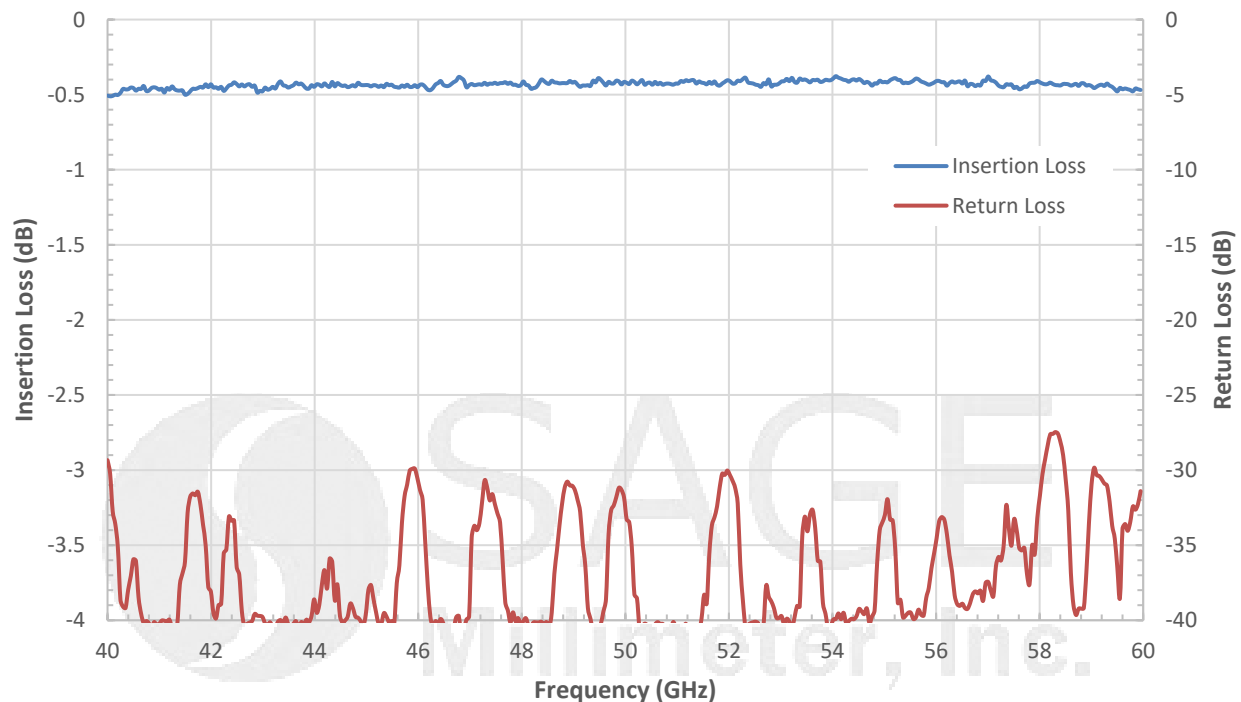


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## Mechanical Specifications:

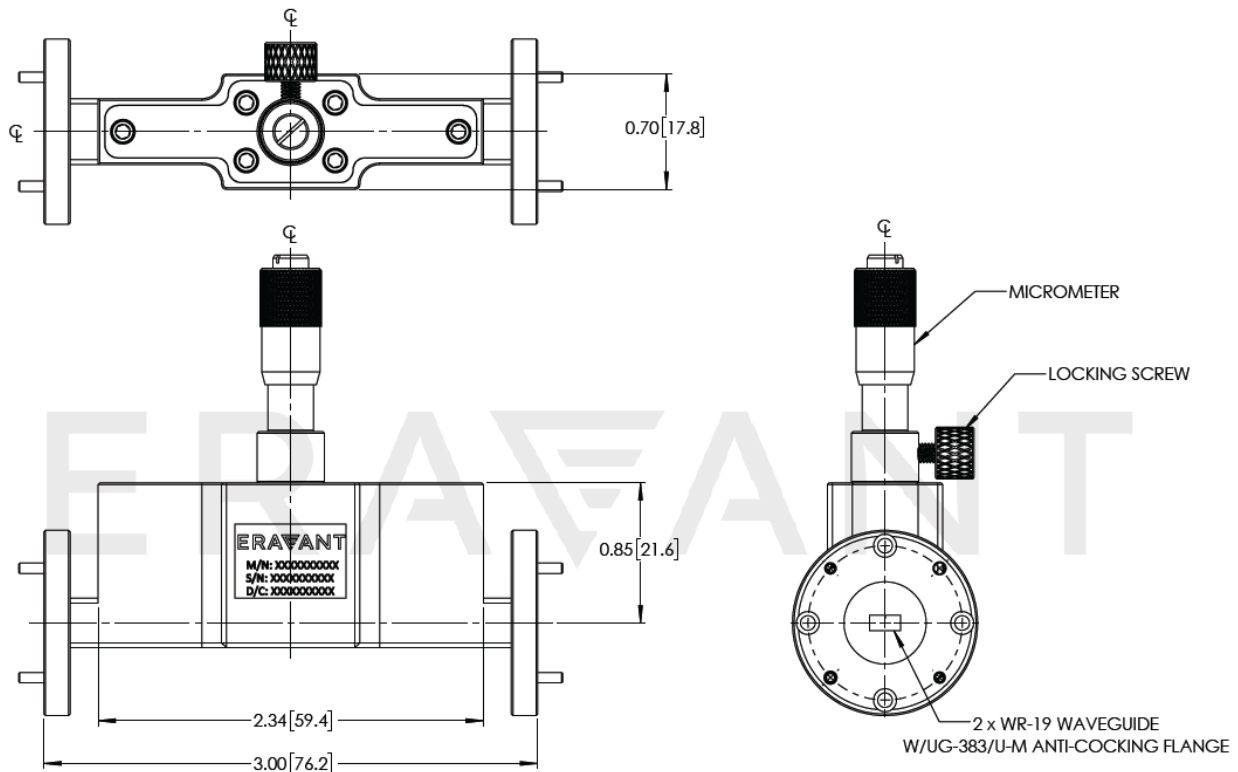
Item	Specification
RF Ports	WR-19 Waveguide with UG-383/U-M Anti-Cocking Flange
Setting Type	Head Locking Screw Type Micrometer
Micrometer Pitch	0.5mm
Micrometer Resolution	0.01mm
Insertion Length	3.0"
Material	Brass
Finish	Gold Plated
Weight	6.0 Oz
Outline	TA-MU-A

## Typical Measured Insertion Loss and Return Loss vs Frequency



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



### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C case temperature.
- Eravant reserves the right to change the information presented without notice.

### Caution:

- RF power should never exceed 1 W.
- Forcing the micrometer down after encountering resistance may damage the dielectric sheet inside. This will cause permanent performance degradation and decrease the long-term stability and repeatability of the device.
- Attempting to adjust the micrometer setting while the head locking screw is engaged may damage the micrometer and decrease the long-term stability and repeatability of the device.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

