

# Model 9012 Model 9015 Manual Step Attenuators

dc to 26.5 GHz dc to 40 GHz 2 Watts



### 2.92mm Connectors



### **Features**

- // Choice of Attenuation Ranges and Step Sizes.
- // Excellent Repeatability.
- **M** Custom Configurations Available Upon Request.
- // Highly Accurate Detent Stepping
- Ruggedized Connector Injection molded to provide consistent interface dimensions.

## **Specifications**

**NOMINAL IMPEDANCE:** 50  $\Omega$ 

FREQUENCY RANGE: Model 9012: dc to 26.5 GHz

Model 9015: dc to 40.0 GHz

#### **INCREMENTAL ATTENUATION RANGE/STEPS:**

Model 9012-9, 9015-9: 0-9 dB in 1 dB steps Model 9012-70: 0-70 dB in 10 dB steps

| INCREMENTAL INSERTION LOSS (dB): |  |  |
|----------------------------------|--|--|
| Model No.                        | Accuracy                                 |  |
| 9012-9                           | ± 0.5 dB                                 |  |
| 9012-70<br>9015-9                | <u>+</u> 1.0 dB or 2%<br><u>+</u> 1.0 dB |  |
|                                  |  |  |

| MAXIMUM SWR:          | AXIMUM SWR: |      |  |
|-----------------------|-------------|------|--|
| Frequency Range (GHz) | 9012        | 9015 |  |
| dc - 18               | 1.45        | 1.50 |  |
| 18 - 26.5             | 1.70        | 1.70 |  |
| 26.5 - 40             |             | 1.70 |  |

| MAXIMUM ZERO INSERTIO | AXIMUM ZERO INSERTION LOSS ( <u>+</u> dB): |      |  |
|-----------------------|--|------|--|
| Frequency Range (GHz) | 9012                                       | 9015 |  |
| dc - 18               | 0.50                                       | 0.50 |  |
| 18 - 26.5             | 1.50                                       | 1.25 |  |
| 26.5 - 40             |  | 1.25 |  |

**POWER RATING:** 2 watts **average** to 25°C ambient temperature, derated linearly to 1 watt @ 54°C. 200 watts **peak** (5  $\mu$ sec pulse width; 0.5% duty cycle) **POWER COEFFICIENT:** < 0.005 dB/dB/watt

TEMPERATURE COEFFICIENT: < 0.0004 dB/dB/°C

**TEMPERATURE RANGE:** 

Operating:  $0^{\circ}\text{C to} + 54^{\circ}\text{C}$ Nonoperating:  $-54^{\circ}\text{C to} + 54^{\circ}\text{C}$ 

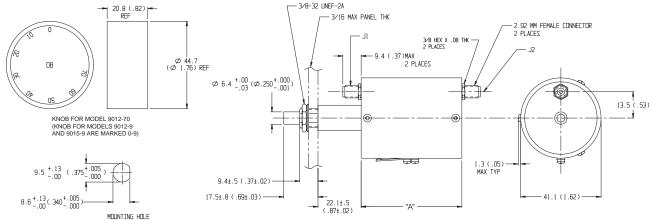
**CALIBRATION:** Insertion loss and SWR data supplied at selected frequencies between 50 MHz and 26.5/40 GHz. Other test data can be provided at additional cost.

**CONNECTOR:** 2.92mm female connector - mate nondestructively with SMA connector per MIL-C-39012, 3.5mm, and other 2.92mm connector.

**CONSTRUCTION:** Stainless steel connector; gold plated beryllium copper contacts. Knob is included with each unit.

**WEIGHT:** Net 270 g (9.6 oz)

### **PHYSICAL DIMENSIONS:**



NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.

| Model No.       | DIM A                |
|-----------------|----------------------|
| 9012-9, 9012-70 | 51.56 (2.03)         |
| 9015-9          | 50.04±.51 (1.97±.02) |