Model 3054

Manual Step, Ruggedized SMA Connectors

DC to 6.0 GHz
1 Watt

Features

- **High Reliability -** Repeatability better than 0.1 dB over frequency range and life. Weinschel patented detent mechanism, tested to 1,000,000 operations at +75°C, operates dependably even down to -40°C.
- **Product Uniformity -** High volume fabrication techniques, including injection molding, stamping, broaching and thick film printing ensure a cost effective and uniform product.
- **Low Frequency Sensitivity -** Typically 0.1 to 0.2 dB up to 2.5 GHz.
- **Shock Resistant -** 100% spring contact system withstands mechanical and thermal shock and eliminates the need for epoxy or solder.
- **Wide Selection -** Wide choice of attenuation ranges and increments in standard stock models. Single and dual drum configurations available.
- **Knob Included -** Knobs for both single and dual drum models are included with every attenuator. Characters are screened on the face of the knob insert which is coated with a clear layer of epoxy for protection.

Special Configurations

Some modifications to the basic configuration of the 3000 Series can be made during manufacturing. Examples of these special configurations are shafts having special lengths and ends; clockwise shaft rotation; modified mounting arrangements; and provisions for add-on items such as concentric potentiometer and ganged switches.

Specifications

NOMINAL IMPEDANCE: 50 Ω
FREQUENCY RANGE: DC to 6.0 GHz
INCREMENTAL ATTENUATION RANGE/STEPS:
Model 3054: 0-70 dB in 1 dB steps
POWER COEFFICIENT: < 0.006 dB/dB/watt
TEMPERATURE COEFFICIENT: 0.0004 dB/dB/ °C
TEMPERATURE RANGE:
Operating: -40°C to +65°C
Non-Operating: -54°C to +85°C

ATTENUATION ACCURACY:

Model	Accuracy
3054	± 0.3 dB or 2% (DC to 3 GHz) ± 0.3 dB or 3.5% (3 to 6 GHz)

POWER RATING: 1 watt **average** @ 25°C ambient temperature, derated linearly to 0 watts @ 65°C. 100 watts **peak** (5 µsec pulse width; 0.5 % duty cycle). **CONNECTOR:** SMA female connector per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connector.
SHAFT ROTATION: counter clockwise for increasing attenuation
STEP ANGLE: 32.7°
DRUM CONFIGURATIONS:
Dual Drum: 3054

MAXIMUM SWR & ZERO INSERTION LOSS:

Model	Frequency (GHz)	SWR	Loss (dB)
3054	DC - 3.0 3.0 - 6.0	1.30 1.55	< 0.8 < 1.3

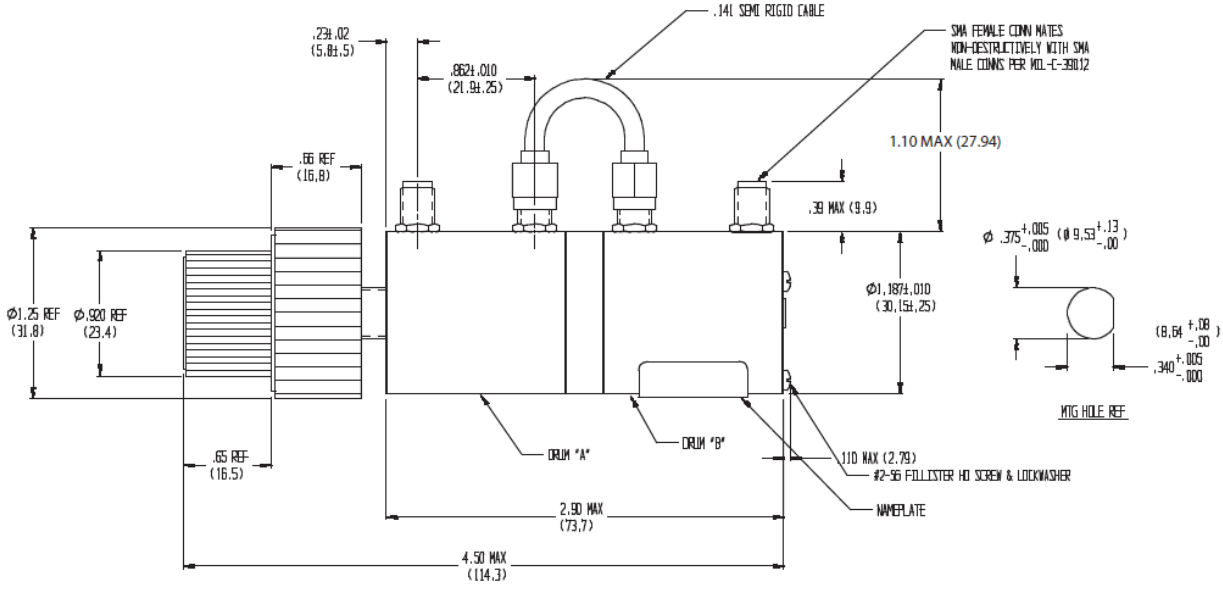
sales@am.spectrumcontrol.com
Approved for Release: February 2025/Brown

SPECTRUM CONTROL

SWITCHING LIFE: 1,000,000 steps
REPEATABILITY: ±0.1 dB over frequency range and rated life
ROTATION STOPS: Supplied on 10 dB step drums (not supplied on 1 dB drums).
INCREMENTAL PHASE SHIFT: ~0.25° per dB x f(GHz)
CONSTRUCTION: Shafting and external hardware and connector shells: CRES Type 303, per ASTM-A582 passivated per QQ-P-35. Housing: AL ALLOY Gold Flash. Knob is included with each unit.
TEST DATA: Test data is available at additional cost.
WEIGHT: Single drum: Net 125 g (4.4 oz)
Dual drum: Net 201 g (9.9 oz)

PHYSICAL DIMENSIONS:

DUAL DRUM



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