

PSM-4E SERIES – PHASE SHIFTERS, MANUAL

TECHNICAL FEATURE

FEATURES

- 10 to 100 MHz
- 0° to 180° Continuous Plus 180° Switch
- 10% Bandwidth
- SMA Connectors

PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency, f_0 , MHz	Phase Shift Range at f_0	Usable Bandwidth
PSM-4E-**B	10 to 100	360° min.	$f_0 \pm 5\%$

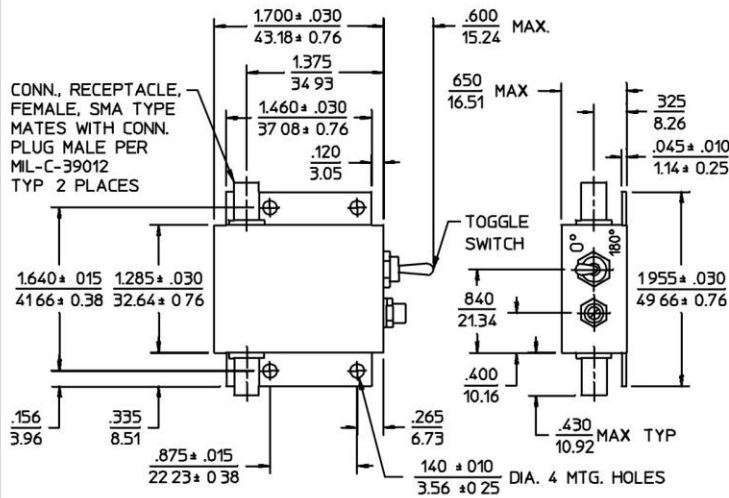
For complete Model Number replace ***with desired Center Frequency, f_0 in MHz.

GENERAL SPECIFICATIONS

Insertion Loss: 1.75 dB max.
 Impedance: 50 Ω nom.
 VSWR: 2.0:1 max
 CW Power: 1 Watt max.
 Screw Drive: 32 turns nom., plus toggle switch

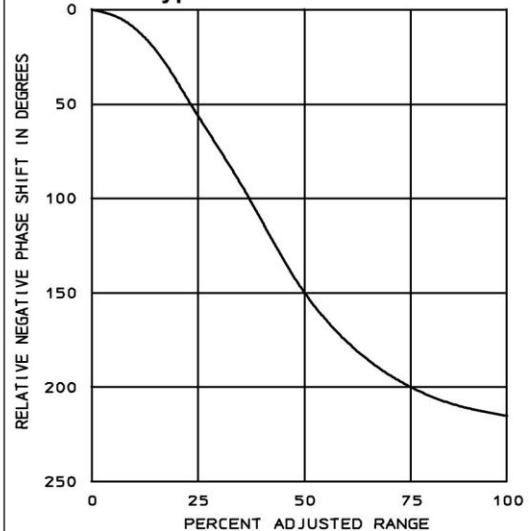
Control direction for increasing phase shift: Clockwise
 Weight, nominal: 1.5 oz. (42 g)
 Operating Temp: -55° to +85°C

Package Outline



NOTES: 1. Tolerance on 3 place decimals $\pm .020(51)$ except as noted.
 2. Dimensions in inches over millimeters.

Typical Performance



General Notes:

1. The PSM-4E series of Phase Shifters provides continuously variable phase shift across the range of 0° to 180°. An additional 180° phase shift can be switched in to provide a total range of 360°.
2. To realize variable phase shifts, these models employ a lumped element quadrature hybrid with a matched pair of L-C networks acting as sliding short circuits on the outputs. The electrical length of the short effectively delays the reflected signal that appears at the isolated port of the quadrature hybrid.
3. Merrimac phase shifters are designed for high reliability and can be supplied screened for specific applications.

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