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



PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency, f _o , MHz	Phase Shift Range at f ₀	Usable Bandwidth	
PSM-4E-**B	10 to 100	360° min.	fo + 5%	

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

Package Outline 1.700 ± .030 43.18 ± 0.76 1.375 650 MAX CONN., RECEPTACLE. 34 93 FEMALE, SMA TYPE 1.460 ± .030 8.26 MATES WITH CONN. 37 08 ± 0.76 PLUG MALE PER .045 ± .010 .120 MIL-C-39012 1.14 = 0.25 3.05 TYP 2 PLACES 0 TOGGLE **SWITCH** 1.640 ± 015 4166 ± 0.38 1.285 ± .030 32.64 ± 0.76 1955 ± .030 840 49 66 ± 0.76 21.34 .400 10.16 .156 .335 .430 10.92 MAX TYP 8.51 .875 ± .015 140 ± 010 22 23 ± 0 38 DIA. 4 MTG. HOLES 1. Tolerance on 3 place decimals ±.020(.51) except as noted. NOTES: Dimensions in inches over millimeters

GENERAL SPECIFICATIONS

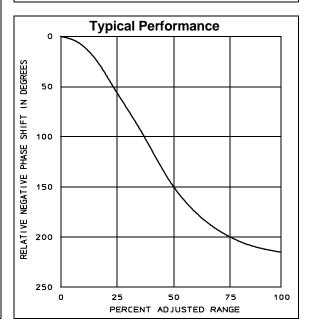
 $\begin{array}{lll} \text{Insertion Loss:} & 1.75 \text{ dB max.} \\ \text{Impedance:} & 50 \ \Omega \text{ nom.} \\ \text{VSWR:} & 2.0:1 \text{ max.} \\ \text{CW Power:} & 1 \text{ Watt max.} \\ \end{array}$

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



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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