

# PSS-2 SERIES – PHASE SHIFTERS, MANUAL

## TECHNICAL FEATURE

### FEATURES

- 10 to 400 MHz
- 0° to 90°
- 10% Bandwidth
- Multi-Turn Adjustments, High Resolution Models

### PRINCIPAL SPECIFICATIONS

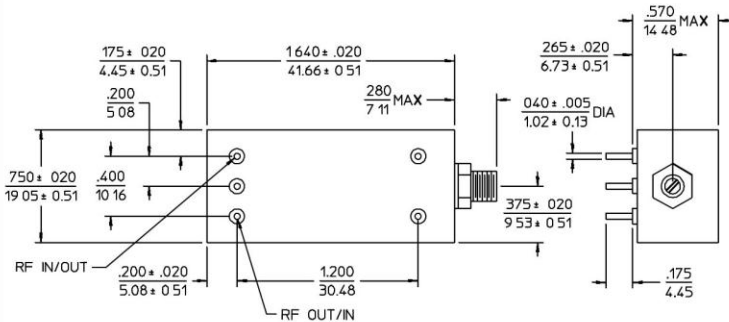
Model Number	Center Frequency, $f_0$ , MHz	Usable Bandwidth, MHz
PSS-2-70	70	66.5 - 73.5
PSS-2-***B	10 to 400	$f_0 \pm 5\%$

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

### GENERAL SPECIFICATIONS

Phase Shift Range: 90° min.  
 Insertion Loss: 1.5 dB max.  
 Impedance: 50  $\Omega$  nom.  
 VSWR: 1.6:1 max.  
 Screw Drive: Multi-turn  
 (insertion phase increases with clockwise rotation)  
 Turns for max. Phase Shift  
 10 MHz to 125 MHz: 32 turns nom.  
 100 MHz to 500 MHz: 18 turns nom.  
 CW Power: 0.5 Watts max.  
 Package: PC Plug-In  
 Weight, nominal: 1.1 oz. (31 g)  
 Operating Temp: -55° to +85°C

### Package Outline

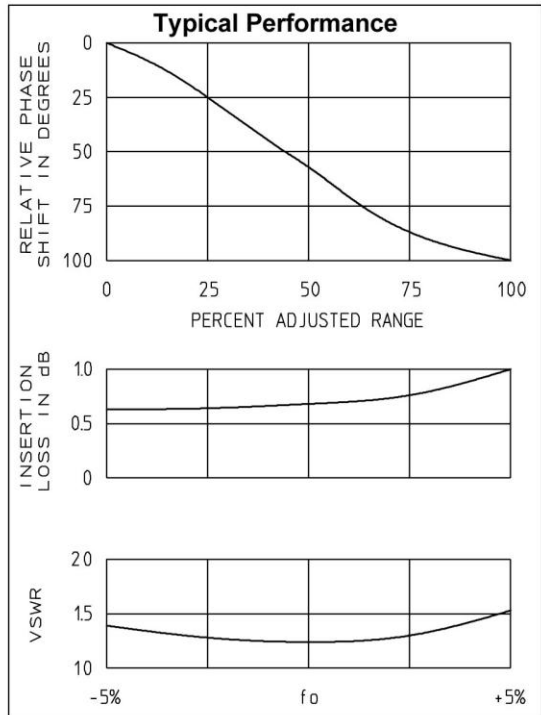


NOTES: 1. Tolerance on 3 place decimals  $\pm .020(.51)$  except as noted.  
 2. Dimensions in inches over millimeters.  
 3. All unmarked pins are internally ground.

### General Notes:

1. The PSS-2 series provides continuously variable phase shift across the range of 0° to 90° using a precision, multi-turn screw adjustment.
2. These phase shifters employ lumped element quadrature hybrids with capacitor tuned LC networks acting as sliding short circuits on the outputs. The electrical length of the short effectively delays the reflected signal which appears at the isolated port of the quadrature hybrid.
3. Similar phase shifters are available in a variety of connectorized packages as well as electronically tuned models in flatpacks and Meri-Pacs.

15Feb96



### Crane Aerospace & Electronics

Microwave Solutions – Merrimac Industries  
 41 Fairfield Place, West Caldwell, NJ 07006  
 + 1.973.575.1300 ext. 1309 • [mw@crane-eg.com](mailto:mw@crane-eg.com)  
[www.craneeae.com/mw](http://www.craneeae.com/mw)

PSS2.doc. This revision supersedes all previous releases. All technical information is believed to be accurate, but no responsibility is assumed for errors. We reserve the right to make changes in products or specifications without notice. Copyright © 2013 Crane Electronics, Inc. All rights reserved.

