



**PRINCIPAL SPECIFICATIONS**

Model Number, BNC	Model Number, SMA	Center Frequency, MHz
PSE-3 & 4-**B	PSEM-3 & 4-**B	1 to 500
For complete Model Number replace ** with Center Frequency, $f_0$ in MHz.		

**GENERAL SPECIFICATIONS**

**PSE/PSEM-3**

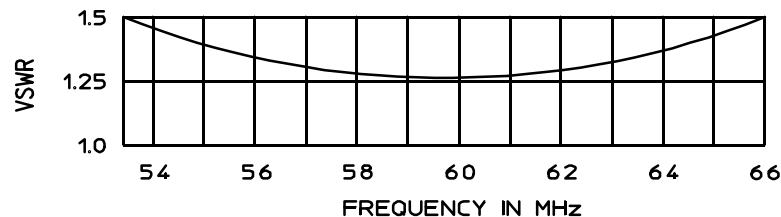
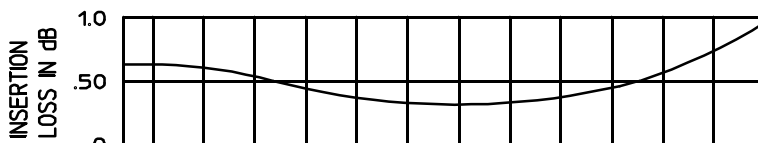
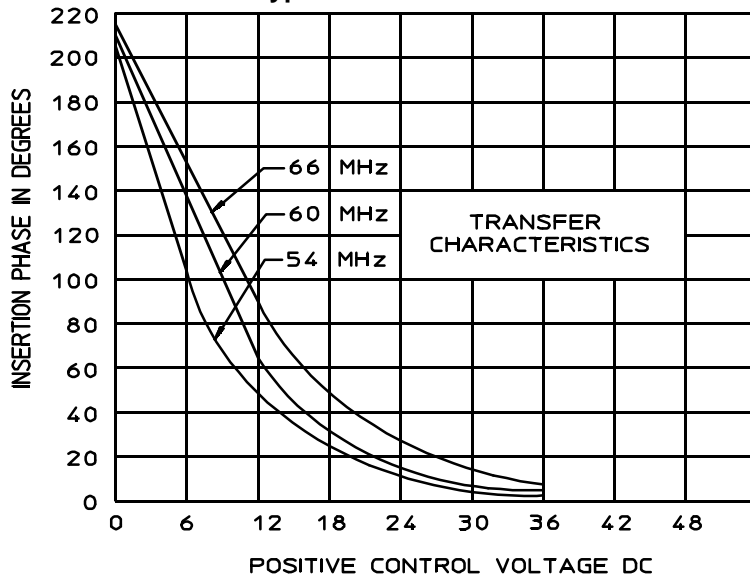
Phase Shift Range: 180° min. @  $f_0$   
 Insertion Loss: 1.5 dB max.  
 Bandwidth: 10% of  $f_0$   
 Impedance: 50  $\Omega$  nom.  
 VSWR: 1.5:1 max.  
 Modulation Rate: 1% of  $f_0$  max.  
 Input Power: 0 dBm max.\*  
 Control Voltage: 0.5 to +15V typ.\*\*  
 Weight, nominal: 3.4 oz (95 g)  
 Phase Stability: 0.1° per °C typ.  
 Operating Temp: -55° to +85°C

**PSE/PSEM-4**

Phase Shift Range: 360° min. @  $f_0$   
 Insertion Loss: 2.0 dB max.  
 Bandwidth: 10% of  $f_0$   
 Impedance: 50  $\Omega$  nom.  
 VSWR: 1.5:1 max.  
 Modulation Rate: 1% of  $f_0$  max.  
 Input Power: 0 dBm max.\*  
 Control Voltage: 0.5 to +15V typ.\*\*  
 Weight, nominal: 4 oz (112 g)  
 Phase Stability: 0.2° per °C typ.  
 Operating Temp: -55° to +85°C

\*For freq  $\geq 10$  MHz, unit may be operated at +10 dBm in reduced control range of 1.5 - 15 V (+30 V no damage).  
 \*\* Voltage required for full control range. Maximum control voltage is 30 V.

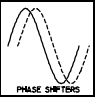
Typical of PSE-3-60



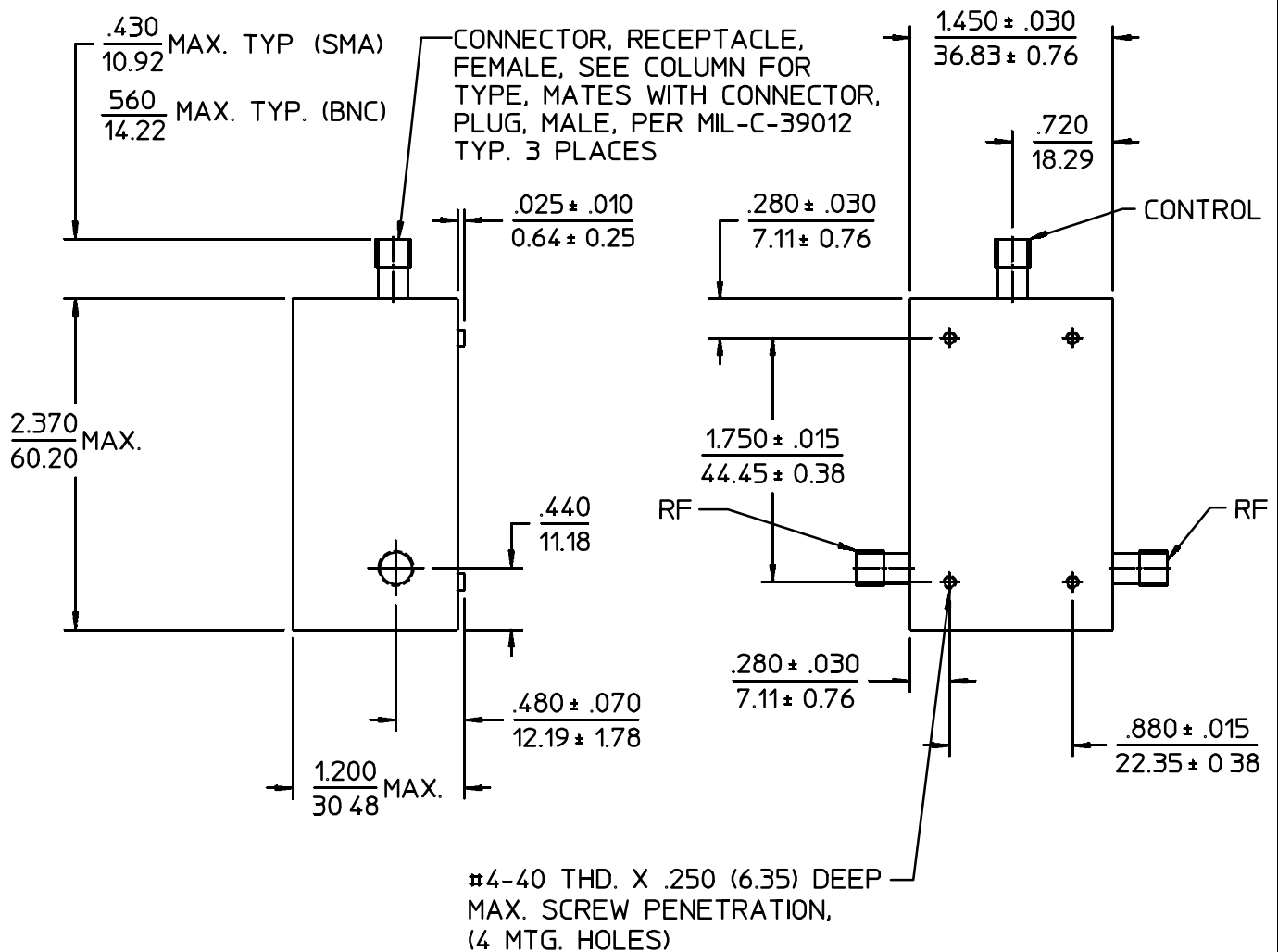
**General Notes:**

- The PSE and PSEM series of phase shifters provide continuous voltage controlled phase adjustment with the application of 0 to +15V. On PSE/PSEM-3 models the full range is 180°. On PSE/PSEM-4 models the range is extended to 360° by cascading two similar 180° phase shifters in one package. All models may be supplied with optional linearized transfer characteristics.
- Merrimac phase shifters are designed for high reliability and can be supplied screened to meet specific military and space applications.

15Feb96



Package Outline



Notes: 1. Tolerance on 3 place decimals  $\pm 0.20(.51)$  except as noted.  
 2. Dimensions in inches over mm.

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