

BEST OF
CLASS



The Jewell ASB Series Angular Accelerometer is a general-purpose ± 200 radian/second² to ± 1000 radian/second² device for industrial, commercial and aerospace sensing requirements.

ASB Series Accelerometer Specifications

Performance

Input Range ^{Note1} , rad/sec ²	± 200	± 500	± 1000
Full Range Output (FRO), volts $\pm 1\%$	± 5.0	± 5.0	± 5.0
Nonlinearity ^{Note2} , % FRO, maximum	0.50	0.20	0.10
Scale Factor, volts/rad/sec ² , nominal	0.025	0.010	0.005
Scale Factor Temp Sensitivity, PPM/ $^{\circ}$ C, maximum	180	180	180
Bias, rad/sec ² , maximum	1.0	4.0	4.0
Bias Temperature Sensitivity, rad/sec ² / $^{\circ}$ C, maximum	0.05	0.05	0.10
Natural Frequency, Hz, nominal ^{Note3}	70	100	120
Bandwidth (-3dB), Hz, nominal	70	100	120
Input-Axis Misalignment, $^{\circ}$, maximum	1.0	1.0	1.0
Resolution and Threshold, rad/sec ² , maximum		0.005	

Electrical

Input Voltage, VDC, nominal ^{Note4}	± 12 to ± 18		
Input Current, mA, nominal	10.0		
Output Impedance, ohms, nominal	10.0k	4.0k	5.0k
Noise, mV rms, maximum	5.0		

Environmental

Temp Range, Operating	-55 $^{\circ}$ C to +95 $^{\circ}$ C
Temp Range, Survival	-65 $^{\circ}$ C to +105 $^{\circ}$ C
Shock	100G, 0.011 second, $\frac{1}{2}$ sine
Seal	MIL-STD-202, Method 112
Weight:	3.0 oz.

NOTES:

¹ Full Range is defined "from negative full input acceleration to positive full input acceleration."

² Nonlinearity is specified as deviation of output referenced to a best fit straight line, independent of misalignment.

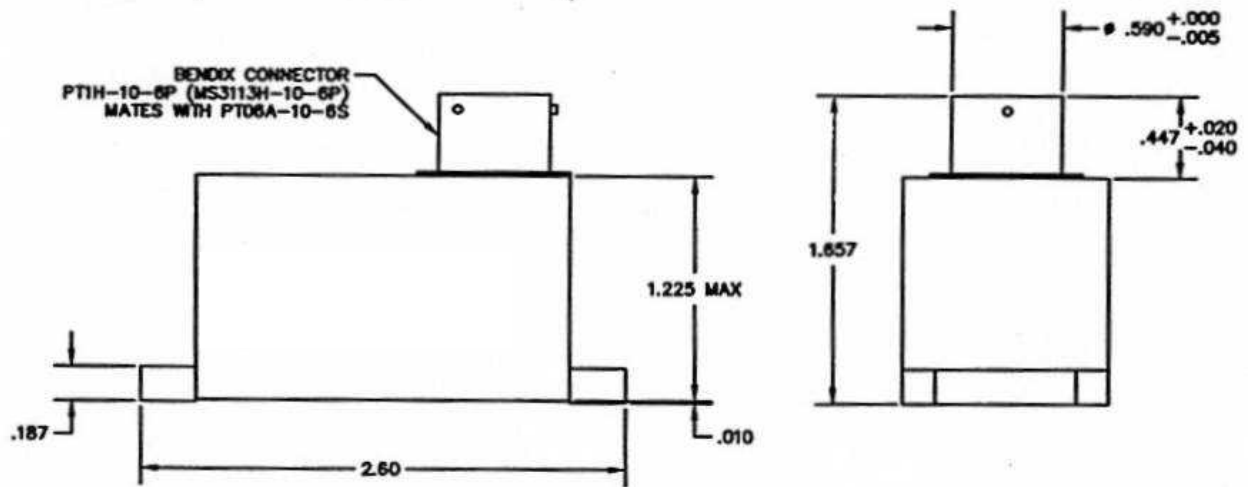
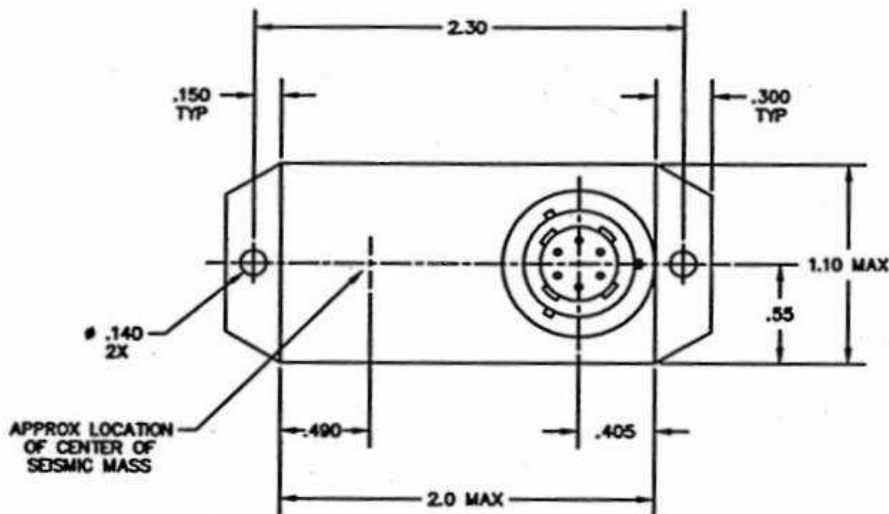
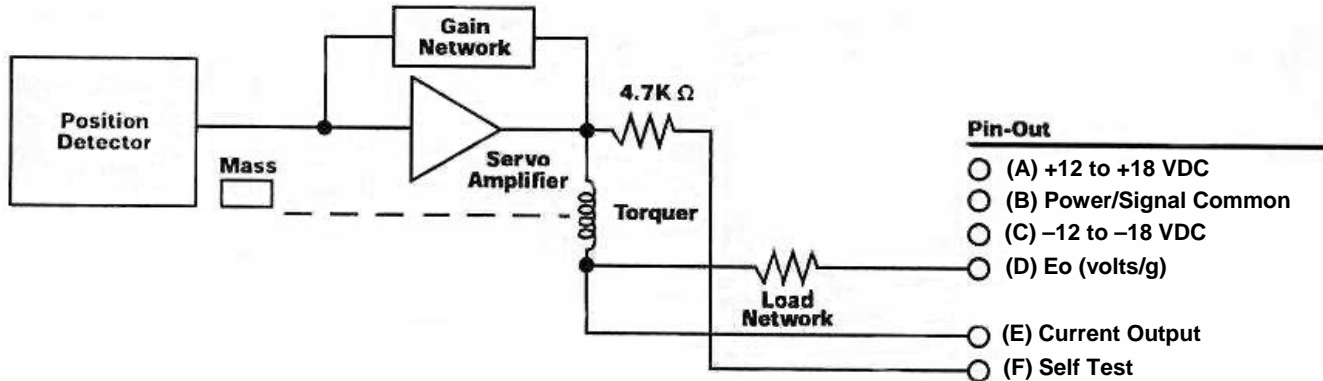
³ Output Phase angle = -90 $^{\circ}$.

⁴ Unit Power connections can be easily adapted for operation from single-ended, floating power supplies of 24 to 36 Volts DC.

Applications

- Antenna Stabilization
- Torque Measurement
and Control of Motors
- Automotive Angular
Acceleration Testing
- Optical System
Stabilization

Outline Dimensions and Block Diagram



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