

# ASB Series Angular Accelerometer

**Input Ranges From  $\pm 200$  to  $\pm 1000$  make this product great for torque applications**



The Jewell **ASB Series** Angular Accelerometer is a general-purpose  $\pm 200$  radian/second<sup>2</sup> to  $\pm 1000$  radian/second<sup>2</sup> device for industrial, commercial and sensing requirements.

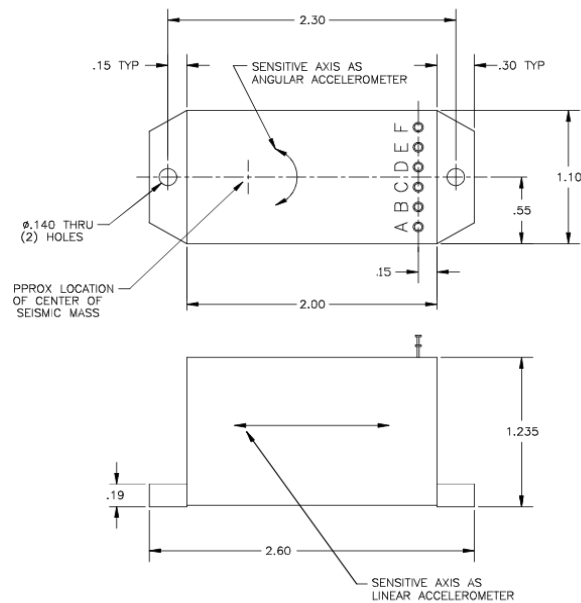
## Outline Drawing: ASB Series Angular Accelerometer

### Features & Benefits

- Bandwidths to 200 Hz
- IP65 Seals
- Available 28V Aircraft Input
- Connector or Pin Configuration
- Aerospace Quality and Reliability
- Low Output Impedance
- High Input Range

### Applications

- Antenna Stabilization
- Acceleration Measurement for Guidance Control Systems
- Vehicle Ride Analysis
- Optical System Stabilization
- Autopilot System Input
- Motor Torque Measurement and Control
- Automotive Angular Acceleration Testing
- (6 Degrees of Freedom) Flight Simulators
- Dyno Testing



Pin A	+12 to +18 VDC
Pin B	Power/Signal Common
Pin C	-12 to -18 VDC
Pin D	E <sub>o</sub> (Volts/g)
Pin E	Current Output
Pin F	Self-Test

# ASB Series Angular Accelerometer



Making Sense out of Motion...

## PERFORMANCE

Input Range, rad/sec <sup>2</sup> (Note 1)	± 200	± 500	± 1000
Full Range Output (FRO), volts ± 1.0%	± 5.0	± 5.0	± 5.0
Non Linearity (%FRO) Max. (Note 2)	0.50	0.20	0.10
Scale Factor, volts/rad/sec <sup>2</sup> , Nominal	0.025	0.010	0.005
Scale Factor Temp Sens (PPM/°C, Max.)	180	180	180
Bias, rad/sec <sup>2</sup> , Max.	1.0	4.0	4.0
Bias Temp Sens, rad/sec <sup>2</sup> /°C, Max.	0.05	0.05	0.10
Natural Frequency, Hz, Nominal (Note 3)	70	100	120
Bandwidth (-3db), Hz, Nominal	70	100	120
Input-Axis Misalignment, ° Max.	1.0	1.0	1.0
Resolution and Threshold, rad/sec <sup>2</sup> , Max.	0.005	0.005	0.005

## ELECTRICAL

Input Voltage, VDC, Nominal (Note 4)	± 12 to ± 18		
Input Current mA, Nominal	10.0		
Output Impedance, ohms, Nominal	10.0k	4.0k	5.0k
Noise, Mv RMS Max.	5.0		

## ENVIRONMENTAL

Temp Range, Operating	-55 to +95°C		
Temp Range, Survival	-65 to +105°C		
Shock	100G, 0.011 second, ½ sine		
Seal	MIL-STD-202, Method 112		
Weight	3.0 oz. [85.049g]		

- Notes:
- 1 - Full range is defined as "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°.
  - 4 - Unit Power connections can be easily adapted for operation from single-ended, floating power supplies of 24 to 36 Volts DC.

## Options

- Unipolar Output
- 28 VDC Input, 0.2-4.8 VDC Telemetry Output
- 28 VDC Input, Bipolar, Non-Isolated Output
- Low Output Impedance
- Lower Ranges Available on Request
- Up to 1500 radian/second<sup>2</sup> Available

## How to Order

ASB-200	02550280-001
ASB-500	02550280-002
ASB-1000	02550280-004