



ProAccel® Triaxial Accelerometer

Description:

The best description of the ProAccel® triaxial accelerometer is ACCURACY. Scale factor, bias and alignment have all been optimized far beyond the performance of the usual MEMS accelerometer. There is no better triaxial accelerometer for instrumentation, stabilization and control applications.



The ProAccel® scale factor, bias and alignment have all been optimized far beyond the performance of the usual MEMS accelerometer. Features that are standard for the ProAccel® include available rate ranges up to 10g's, internal power regulation for power input between 8 volts and 45 volts, EMI and RFI protection, and a case mounted connector.

Watson ProAccel® features:

- Excellent performance
- Accurate even in severe environments
- Rugged
- Wide bandwidth
- Stable
- CE Certified
- High reliability
- Two-year warranty

Applications:

- Aircraft flight instrumentation and control
- Platform stabilization (antenna, camera, etc.)
- Robotics
- Navigation
- Vehicle test instrumentation
- Train tilt controls



Watson Industries ProAccel® Models*

Model	Range	Output	Zero Ref (0g's)	Scale Factor
ACC-322-2A	±2 g's	0 - 5 VDC	+2.5VDC	1.25V/g
ACC-322-3A	±2 g's	±5 VDC	0.0 VDC	2.50V/g
ACC-332-2A	±5 g's	0 - 5 VDC	+2.5VDC	0.50V/g
ACC-332-3A	±5 g's	±5 VDC	0.0 VDC	1.00V/g
ACC-342-2A	±10 g's	0 - 5 VDC	+2.5VDC	0.25V/g
ACC-342-3A	±10 g's	±5 VDC	0.0 VDC	0.50V/g

*Custom ranges are available



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Watson ProAccel® Specifications

Acceleration

Range: X, Y, Z	±5g (Typical)	See table above
Analog Scale Factor:	1 V/g (Typical)	See table above
Scale Factor Accuracy:	0.2%	At constant room temp
Scale Factor Temp Coefficient:	0.5%	Over temp range
Bias: X, Y, Z	< 6mg	At room temperature
Bias: Over Temp Range	<10mg	
Non-Linearity:	<0.1%	Full scale range
Bandwidth:	100 Hz	Butterworth
Noise:	1.5mg rms	1 Hz to 100 Hz

Environmental

Temperature: Operating	-40°C to +85°C	
Temperature: Storage	-55°C to +85°C	
Vibration: Operating	5g rms	20 Hz to 2 KHz
Vibration: Survival	10g rms	20 Hz to 2 KHz
Shock: Survival	500g	10mS ½ sine wave

Electrical

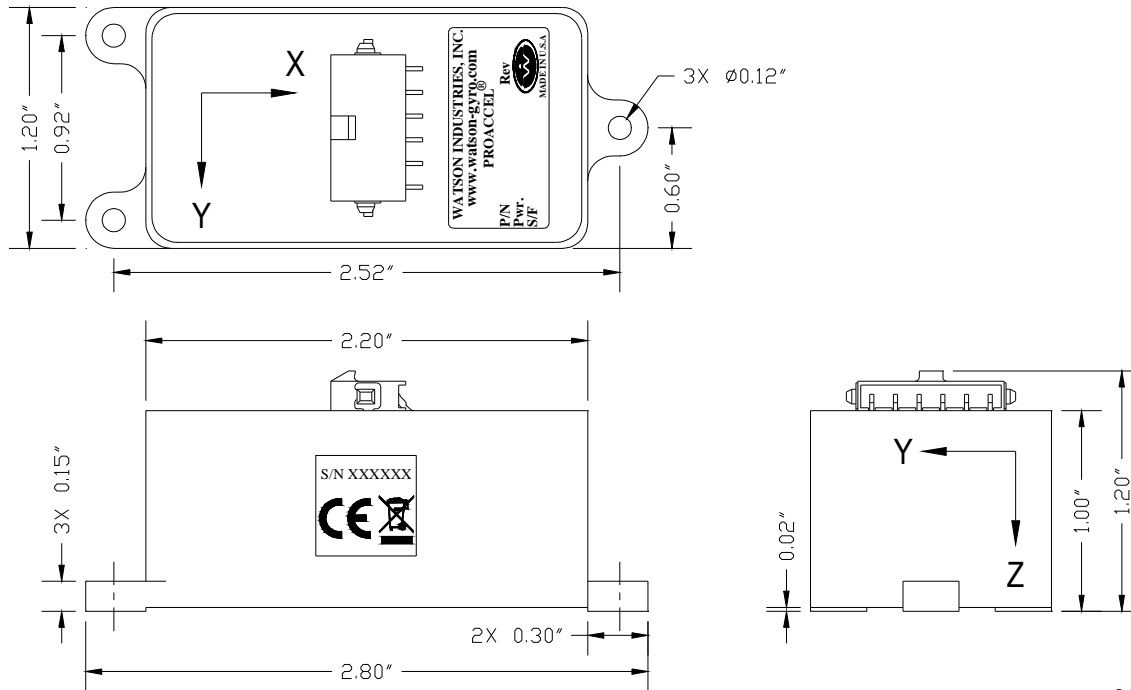
Input Power:	8 to 45VDC	Reverse protected
Input Current:	20mA @ 12VDC	0.25W
Analog Output:	±5VDC (Typical)	See table above
Analog Output Impedance:	1000 Ohm	5%

Physical

Size: Including Mounting Flanges	1.2"W x 2.8"L x 1.2"H	3 x 7.1 x 3 (cm)
Weight:	2.0oz (0.11lb)	60 grams (0.1Kg)
Connection:	Amp 1445057-6 Connector (6 pin)	Mating Connector Incl. 12" Wire bundle optional
Life:	> 100,000 Hrs MTBF	20 years shelf life

- Specifications are subject to change without notice.
- This product may be subject to export restrictions. Please consult the factory.

Watson ProAccel® Dimensions:



05/20 DAO



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