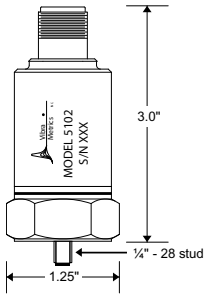


## Models 5102

### High Output Shear Design Accelerometer



#### DESCRIPTION AND FEATURES

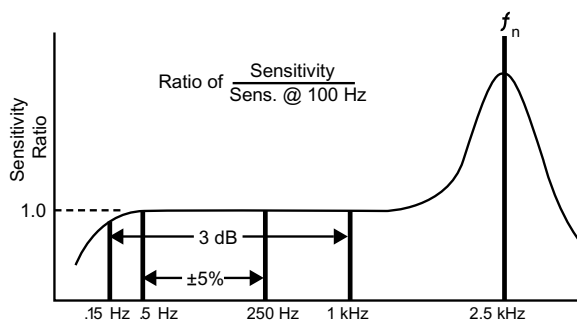
The 5102 accelerometer was designed for industrial applications and low rpm machinery requiring low frequency response combined with high sensitivity. It features a rugged top-mounting 2-pin mil-style connector, internal electrical isolation, and epoxy sealed.

This accelerometer is designed with the piezo-electric crystal in shear mode, virtually eliminating base strain, thermal transients and other phenomena that are accentuated at low frequencies.

- 500 mV/g
- Shear Mode Design
- Splashproof
- ISOSHIELD Isolation
- 2-Pin MIL Style Connector

#### APPLICATIONS

- Low RPM Rollers/Machinery
- Bridges
- Buildings/Structures



#### OPERATING SPECIFICATIONS

##### Dynamic

Sensitivity @ 100 Hz, ± 5%	500 mV/g - 51 mV (m/s <sup>2</sup> )
Frequency Range ± 5%	0.5 Hz - 250 Hz
Frequency Range ± 10%	0.3 Hz - 400 Hz
Frequency Range ± 3 dB	0.15 Hz - 1 kHz
Turn-On Time (2% of Final Bias)	< 10 Seconds
Amplitude Range	± 10 g
Mounted Resonance (nominal)	2.5 kHz
Transverse Sensitivity	< 5%

##### Electrical

Noise Broadband 2.5 Hz to 25 kHz	40 µg (rms)
Noise Spectral 10 Hz	1.0 µg/vHz
Noise Spectral 100 Hz	0.35 µg/vHz
Noise Spectral 1000 Hz	0.065 µg/vHz
Output Impedance	1000 Ω
Isolation/Grounding	Isolated, > 100 Meg Ω
Noise Rejection (EMI/RFI)	> 52 db
Bias Volts (Nominal)	7 VDC
Power Requirements	15-30 VDC
Current Regulating Diode	2-6 mA cc

##### Environmental

Temperature Range	-40 to 250°F / -40 to 121°C
Base Strain	0.005 g peak/µstrain
Shock Limit	500 g

##### Physical

Dimensions	3" h x 1.25" diam. (7.6 x 3.2 cm)
Weight	10.7 oz / 303 grams
Case Material	303 Stainless Steel
Design	Isolated Shear
Seal	Epoxy
Mounting	1/4-28 Removable Stud
Mounting Torque	35 in-lb (40 cm-kg)
Cable/Connector	Top 2-Pin MIL Style

#### ORDERING INFORMATION AND ACCESSORIES

Model 5102, Mfr. Part No. 9356875

##### Sensors include

- NIST Traceable Calibration
- Mounting Stud
- User Manual
- 1-Year Warranty

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