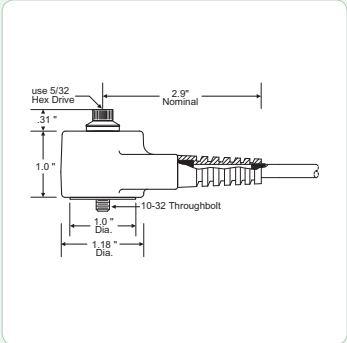


# Models 8002HS

## Severe Duty High Output Accelerometer



### DESCRIPTION AND FEATURES

The 8002 Guardian accelerometers' internal microelectric components and durable encapsulation assure users of long-term stability and service.

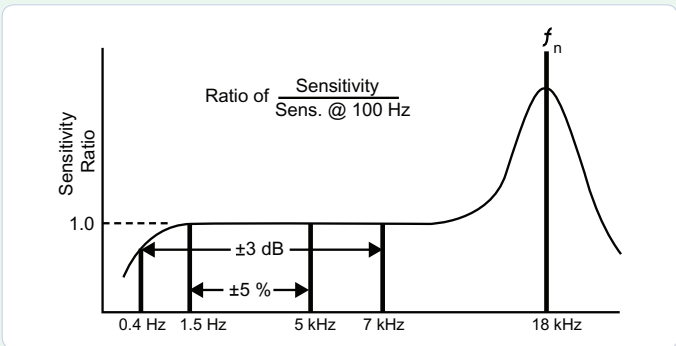
The 8002 features an external frequency range up to 300,000 CPM, capable of capturing all bearing and gear defects, excellent signal-to-noise ratio, plus isolated symmetrical shear mode sensing. All 8002 models include our patented TUFKEM integral cable assemblies for superior water and chemical resistance.

A 10-32 captive center throughbolt simplifies mounting. The 8002 series sensors come with a full 2-Year Warranty

- High Sensitivity of 500 mV/g
- Integral TUFKEM® Chemical Resistant Cable
- Exclusive Injection Molded Composite Body
- Unique Throughbolt Mounting Design
- Isolated Symmetrical Shear Mode Sensing

### APPLICATIONS

- Low Amplitude Focus
- Heavy Industrial
- Severe Chemical Presence
- Gears/Bearings
- Rollers



### OPERATING SPECIFICATIONS

#### Dynamic

Sensitivity @ 100 Hz, ± 10%	.....500 mV/g - 51 mV/(m/s <sup>2</sup> )
Frequency Range ± 5 %	.....1.5 Hz - 5 kHz
Frequency Range ± 10 %	.....0.7 Hz - 6 kHz
Frequency Range ± 3 dB	.....0.4 Hz - 7 kHz
Turn-On Time (2% of Final Bias)	..... < 0.3 Seconds
Amplitude Range (at 72°F)	.....± 10 g
Mounted Resonance	..... > 18 kHz
Transverse Sensitivity	..... < 5%
Amplitude Linearity	..... < 1%

#### Electrical

Noise Broadband 2.5 Hz to 25 kHz	..... 60 µg RMS
Noise Spectral 10 Hz	..... 1.0 µg/√Hz
Noise Spectral 100 Hz	..... 0.4 µg/√Hz
Noise Spectral 1000 Hz	..... 0.1 µg/√Hz
Output Impedance (nominal)	..... 2,000 Ω
Isolation	..... Isolated, > 100 Meg Ω
Noise Rejection (EMI/RFI)	..... > 52dB
Bias Volts (nominal)	..... 12 VDC
Power Requirements	..... 24-30 VDC
Current Regulating Diode	..... 2-6 mA cc

#### Environmental

Temperature Range	..... -40 to 250°F / -40 to 121°C
Base Strain (NOM)	..... 0.001 g peak/µstrain
Thermal Shock	..... < .0002 g Peak/°C
Shock Limit	..... 5,000 g Peak

#### Physical

Dimensions	..... 1.0" h x 1.2" Diameter (2.5 x 3 cm)
Weight	..... 1.6 oz / 45 grams, plus cable
Case Material	..... Welded Stainless Steel Inner Housing w/ Composite Polymer Molded Jacket
Design	..... Isolated Shear Seal
Mounting	..... Injection Molded Encapsulant
Mounting Torque	..... 10-32 Captive Throughbolt
Cable/Connector	..... 20 in-lb. (2.2 N-m) TUFKEM® Cable to BNC or Pigtail

### ORDERING INFORMATION AND ACCESSORIES

Model 8002HSP (Pigtail), Mfr. Part No. 9356934  
 Model 8002HSB (BNC), Mfr. Part No. 9356933

#### Sensors include

NIST Traceable Calibration, Integral 15' Cable Assembly, Mounting Throughbolt, User Manual  
 Full 2-Year Warranty

**WORLDWIDE HEADQUARTERS:**  
 195 Clarksville Rd •  
 Princeton Jct, NJ 08550 • USA  
 T: +1.609.716.4000 • F: +1.609.716.0706  
 E-MAIL: sales.systems@mistrasgroup.com

**CANADA** T: +1.403.556.1350  
**CHINA** T: +86.10.5877.3672  
**FRANCE** T: +331.498.26040  
**GERMANY** T: +49.040.2000.4025  
**GREECE** T: +30.210.2846.801

**HOLLAND** T: +31.010.245.0325  
**INDIA** T: +91.22.2586.2444  
**JAPAN** T: +81.33.498.3570  
**MIDDLE EAST** T: +44(0)1954.231.612  
**RUSSIA** T: +7495.789.4549

**SCANDINAVIA** T: +46(0)31.252040  
**S. AMERICA** T: +55.11.3082.5111  
**UK** T: +44(0)1954.231.612