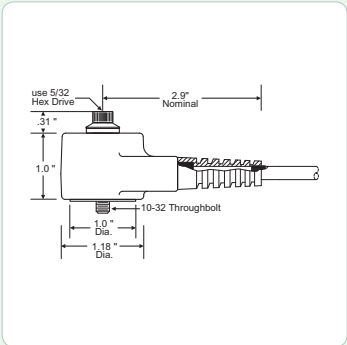


## Models 8002C/8002CFM

### Severe Duty High Temperature Intrinsically Safe Accelerometers



#### DESCRIPTION AND FEATURES

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

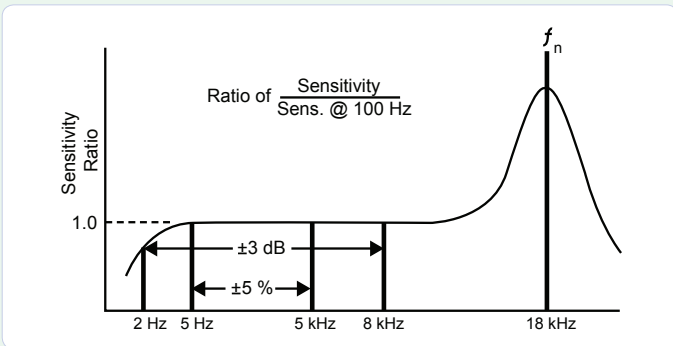
The 8002 features an external frequency range up to 300,000 CPM, capable of capturing all bearing and gear defects, excellent signal-to-noise ratio, plus isolated symmetrical shear mode sensing. All 8002 models include our patented TUFKEM integral cable assemblies for superior water and chemical resistance.

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

- 100 mV/g
- Use on surface temperatures of up to 350°F with Thermal Isolator in room temperature ambient air
- Optional Intrinsically Safe FM Certification
- Integral TUFKEM® Chemical Resistant Cable
- Exclusive Molded Composite Encapsulant
- Unique Throughbolt Mounting Design

#### APPLICATIONS

- Severe, High Temp Chemical Presence
- Heavy Industrial
- Cooling Towers
- Gears/Bearings
- Atomizers



#### OPERATING SPECIFICATIONS

##### Dynamic

Sensitivity @ 100 Hz, ± 10% .....	100 mV/g - 10.2 mV/(m/s <sup>2</sup> )
Frequency Range ± 5 % .....	5 Hz - 5 kHz
Frequency Range ± 10 % .....	4 Hz - 6 kHz
Frequency Range ± 3 dB .....	2 Hz - 8 kHz
Turn-On Time (2% of Final Bias) .....	< 0.3 Seconds
Amplitude Range .....	± 65 g
Mounted Resonance .....	> 18 kHz
Transverse Sensitivity .....	< 5%
Amplitude Linearity .....	< 1%

##### Electrical

Noise Broadband 2.5 Hz to 25 kHz .....	380 µg RMS
Noise Spectral 10 Hz .....	32 µg/√Hz
Noise Spectral 100 Hz .....	8 µg/√Hz
Noise Spectral 1000 Hz .....	3.5 µg/√Hz
Output Impedance (nominal) .....	< 100 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 300°F / -40 to 150°C
Base Strain (NOM) .....	0.001 g peak/µstrain
Thermal Shock .....	< .0002 g Peak/°C
Shock Limit .....	5,000 g

##### 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 .....	Welded Hermetic Seal
Mounting .....	10-32 Captive Throughbolt
Mounting Torque .....	25 in-lb.
Cable/Connector .....	TUFKEM® Cable to BNC or Pigtail
Cable Pull Strength .....	40 lbs. Typ.

#### ORDERING INFORMATION AND ACCESSORIES

- Model 8002CP (Pigtail), Mfr. Part No. 9356999
- Model 8002CB (BNC), Mfr. Part No. 9356998
- Model 8002CFMP (Pigtail), Mfr. Part No. 9356931
- Model 8002CFMB (BNC), Mfr. Part No. 9356930

##### Sensors include

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

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