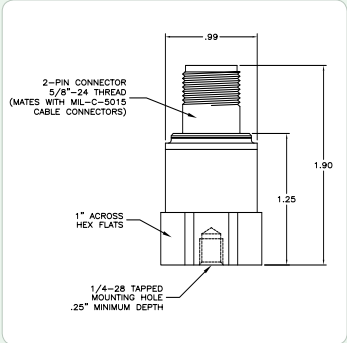


# Model 6051-IS

## Premium Industrial Intrinsically Safe Accelerometer



### DESCRIPTION AND FEATURES

6051-IS accelerometers feature welded hermetically sealed construction, a top 2-Pin MIL style connector, and 1/4-28 mounting stud.

- 100 mV/g
- IP-67
- 2-Pin MIL Style Connector
- Intrinsically Safe FM Certified

### APPLICATIONS

- General Industrial
- Motors/Generators
- Pumps
- Gearboxes
- Rollers
- Experimental
- Fans/Cooling Towers
- Bearing Housings
- Compressors

### CERTIFICATE OF COMPLIANCE

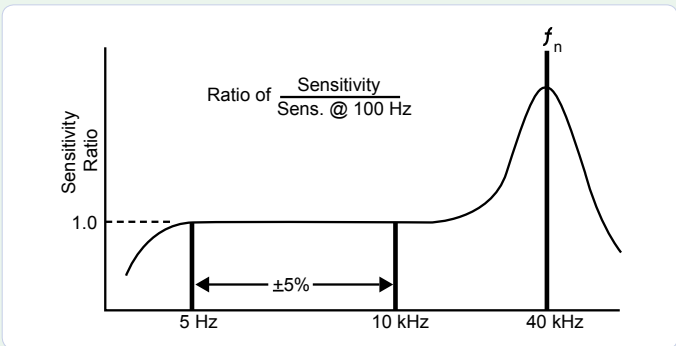
IS/ I, II, III / 1/ ABCDEFG/ T4 Ta = -55°C to +85°C – 9358-6000; Entity; IP 67

NI/ I/ 2/ ABCD/ T4 Ta = -55°C to +85°C; IP 67

NI/ II, III/ FG/ T4 Ta = -55°C to +85°C; IP 67

Entity Parameters:

Vmax = 30V, Imax = 50mA, Ci = 1200pF, Li = 0



### OPERATING SPECIFICATIONS

#### Dynamic

Sensitivity @ 100 Hz, ± 5% ..... 100 mV/g - 51 mV (m/s<sup>2</sup>)  
 Frequency Range ± 5% ..... .5 Hz - 10 kHz  
 Frequency Range ± 10% ..... .4 Hz - 12 kHz  
 Frequency Range ± 3 dB ..... .2 Hz - 20 kHz  
 Turn-On Time (2% of Final Bias) ..... < 0.5 Seconds  
 Amplitude Range ..... ± 75 g-pk  
 Mounted Resonance (nominal) ..... 40 kHz  
 Transverse Sensitivity (nominal) ..... 5%  
 Amplitude Linearity ..... < 1%

#### Electrical

Noise Broadband 2.5 Hz to 20 kHz ..... 350 µg (rms)  
 Noise Spectral 10 Hz ..... 30 µg/vHz  
 Noise Spectral 100 Hz ..... 8 µg/vHz  
 Noise Spectral 1000 Hz ..... 3 µg/vHz  
 Output Impedance ..... 100 Ω  
 Isolation ..... Isolated  
 Bias Volts (nominal) ..... 12-14 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 (Nominal) ..... .001 g peak/µstrain  
 Shock Limit ..... 5000 g-pk

#### Physical

Dimensions ..... 1.90" h x 1.00" (hex)  
 Weight ..... .75 grams  
 Case Material ..... Type 316L Stainless Steel  
 Design ..... Piezoelectric/Compression  
 Seal ..... Welded/Hermetic  
 Mounting ..... 1/4-28 Stud  
 Mounting Torque ..... 35 in-lb (3.9 N-m)

### ORDERING INFORMATION AND ACCESSORIES

Model 6051-IS, Mfr. Part No ..... 6051-IS-5015

Power Supplies, 2 mA output, BNC/BNC, 24 VDC  
 Model P5000 (rechargeable battery) ..... 9356559  
 Model LP24-1B (110 VAC Line Input) ..... 9356120

Cable, 2-Pin MIL/BNC Splash Proof 6'/15' RG58... 9354092-S  
 Cable, 2-Pin MIL/Pigtail 6' high temperature ..... 9354084  
 Cable, 2-Pin MIL/BNC 6' high temperature ..... 9356381

Magnetic holder, 16 lb (for curved/flat surfaces) ... 9356809

#### Sensors include

NIST Traceable Calibration, ¼-28 Mounting Stud  
 User Manual, 1-Year Warranty

**WORLDWIDE HEADQUARTERS:**  
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