

Model 8032-01 Accelerometer



Low Cost Industrial Accelerometer
12kHz Bandwidth
-55°C to +100°C Operating Range
Integral Cable, Molded Strain Relief



The **Model 8032-01** is an internally shielded rugged IEPE accelerometer designed for harsh environments. The accelerometer is available in ± 50 to $\pm 500g$ dynamic ranges and has a flat bandwidth up to greater than 12kHz. The model 8032-01 features an integral molded strain relief and is designed to operating in temperature ranges from -55°C to +100°C. The unit features the popular stud mount installation.

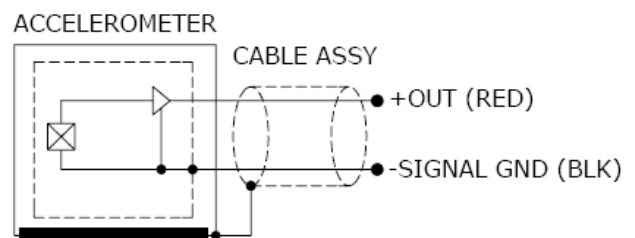
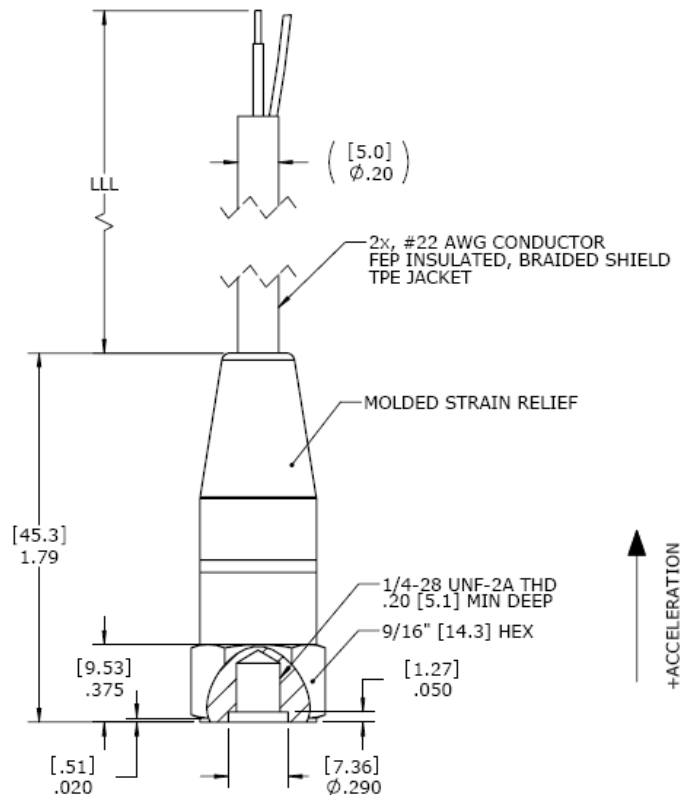
FEATURES

- $\pm 50g$ to $\pm 500g$ Dynamic Range
- Wide bandwidth up to 12kHz
- Case Isolated, Internally Shielded
- Reverse Wiring Protection
- Stable Temperature Response
- Integral Cable, Molded Strain Relief

APPLICATIONS

- General Purpose
- Machine Monitoring
- Industrial Applications
- Harsh Environments
- Gearbox Monitoring

dimensions



Model 8032-01 Accelerometer

performance specifications

All values are typical at +24°C, 100Hz and 4mA excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters

DYNAMIC

| | | | Notes |
|----------------------------|-----------|-----------|-------|
| Range (g) | ±50 | ±500 | |
| Sensitivity (mV/g) | 100 | 10 | ±10% |
| Frequency Response (Hz) | 1-8000 | 1-8000 | ±1dB |
| Frequency Response (Hz) | 0.4-10000 | 0.4-12000 | ±3dB |
| Natural Frequency (Hz) | 47000 | 47000 | |
| Non-Linearity (%FSO) | ±1 | ±1 | |
| Transverse Sensitivity (%) | <7 | <7 | |
| Shock Limit (g) | 5000 | 5000 | |

ELECTRICAL

| | | | |
|-------------------------------|------------------------------------|----------|------------------|
| Compliance Voltage (Vdc) | 18 to 30 | 18 to 30 | |
| Excitation Current (mA) | 2 to 10 | 2 to 10 | |
| Bias Voltage (Vdc) | 8 to 12 | 8 to 12 | Room Temperature |
| Bias Voltage (Vdc) | 6 to 14 | 6 to 14 | -55 to +100°C |
| Output Impedance (Ω) | <100 | <100 | |
| Insulation Resistance (MΩ) | >100 | >100 | @50Vdc |
| Residual Noise (g RMS) | 0.0004 | 0.0009 | 1Hz to 10kHz |
| Spectral Noise, 10Hz (µg√Hz) | 12 | 25 | |
| Spectral Noise, 100Hz (µg√Hz) | 7.5 | 15 | |
| Spectral Noise, 1kHz (µg√Hz) | 3.5 | 8 | |
| Warm-up Time (sec) | <2 | <2 | |
| Grounding | Case Isolated, Internally Shielded | | |

ENVIRONMENTAL

| | | | |
|----------------------------|--------------------------------------|----|--|
| Temperature Response (%) | ±5 | ±5 | |
| Operating Temperature (°C) | -55 to +100 | | |
| Storage Temperature (°C) | -55 to +100 | | |
| Humidity | Environmentally Sealed, Molded, IP67 | | |

PHYSICAL

| | |
|-----------------|---|
| Sensing Element | Ceramic |
| Cable | Teflon® Insulated Leads, Braided Shield, TPE Jacket |
| Case Material | Stainless Steel |
| Weight (grams) | 90 |
| Mounting | ¼-28 to ¼-28 Mounting Stud (included) |
| Mounting Torque | 24 lb-in (2.7 N-m) |
| AWG | #22 |

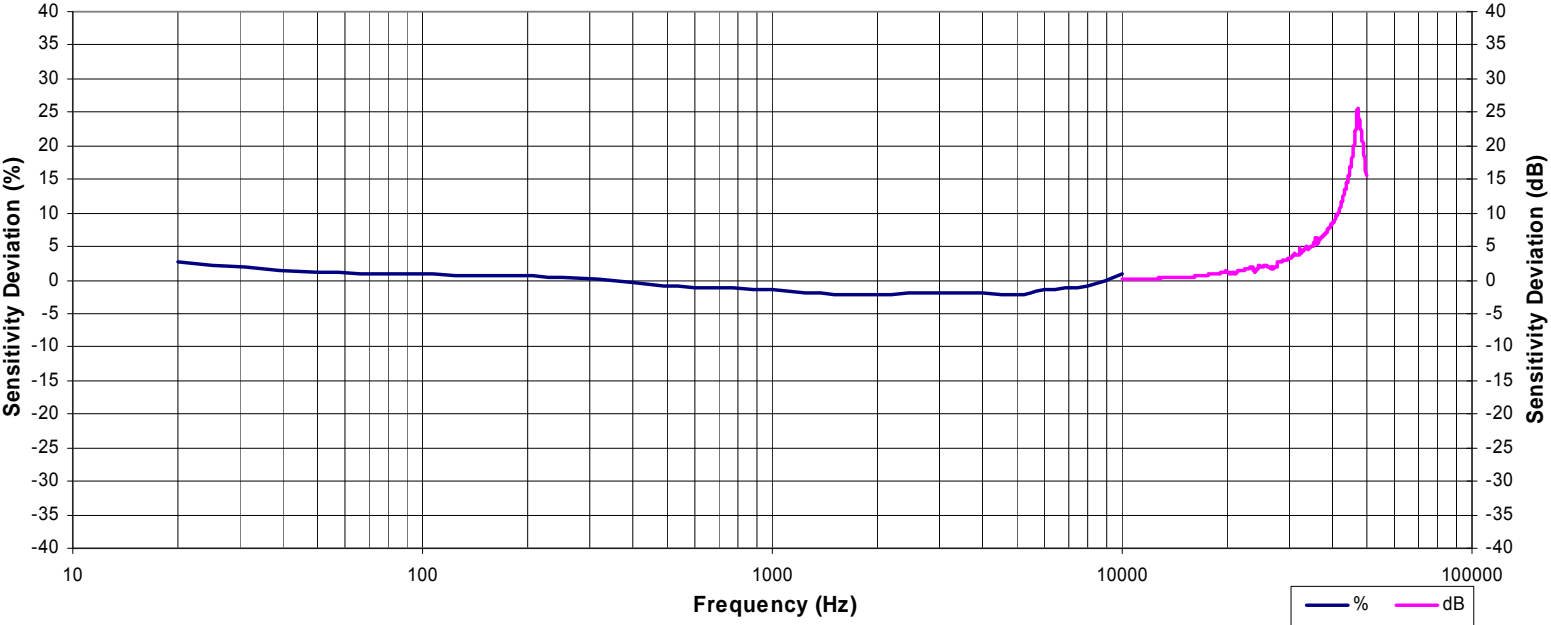
| | | |
|------------------------------|--------------|---|
| Calibration supplied: | CS-SENS-0100 | NIST Traceable Amplitude Calibration at 100Hz |
| Supplied accessories: | AC-A03663 | ¼-28 to ¼-28 mounting stud |
| Optional accessories: | CS-FREQ-0100 | NIST Traceable Amplitude Calibration from 20Hz to ±3dB Frequency Response Limit |
| | AC-D03664 | ¼-28 to M5 mounting stud |
| | AC-D03665 | ¼-28 to M6 mounting stud |

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performance specifications

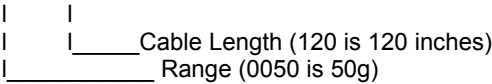
Typical Frequency Response



ordering info

PART NUMBERING Model Number+Range

8032-01-GGGG-ZZZ



Example: 8032-01-0050-120
Model 8032-01, 50g, 120inch (10ft) cable length