

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.

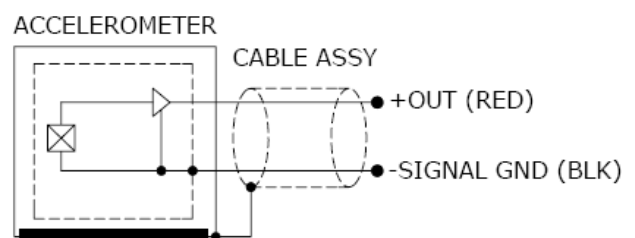
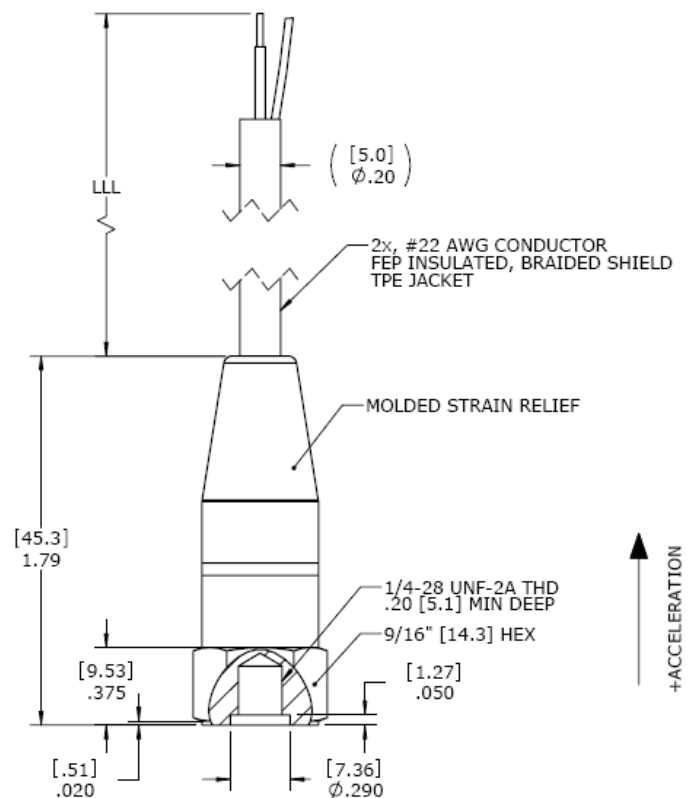
FEATURES

- $\pm 50g$ 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

			Notes
DYNAMIC			
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	
Residual Noise (g RMS)	0.0004	0.0009	Broadband 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	

ELECTRICAL

Compliance Voltage (Vdc)	18 to 30		
Excitation Current (mA)	2 to 10		
Bias Voltage (Vdc)	8 to 12		Room Temperature
Bias Voltage (Vdc)	6 to 14		-55 to +100°C
Output Impedance (Ω)	<100		
Insulation Resistance (MΩ)	>100		@100Vdc
Warm-up Time (sec)	<2		
Grounding	Case Isolated, Internally Shielded		

ENVIRONMENTAL

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

PHYSICAL

Sensing Element	Ceramic
Cable	FEP 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)

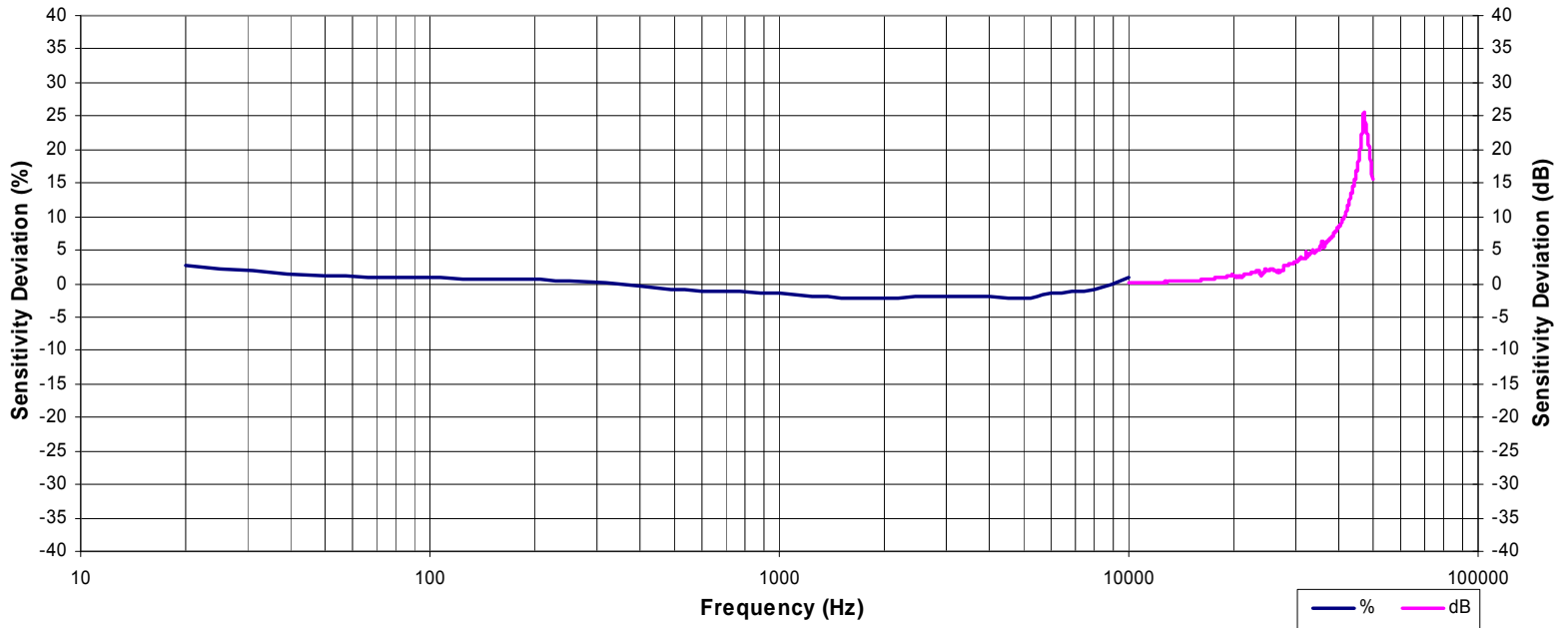
Calibration supplied:	CS-SENS-0100	NIST Traceable Amplitude Calibration at 100Hz
Supplied accessories:	AC-A03663	¼-28 to ¼-28 mounting stud
Optional accessories:	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±3dB Frequency Response Limit
	AC-D03664	¼-28 to M5 mounting stud
	AC-D03665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

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Model 8032-01 Accelerometer

performance specifications

Typical Frequency Response



ordering info

PART NUMBERING Model Number+Range+Cable Length

8032-01-GGGG-ZZZ

| |
 | | Cable Length (120 is 120 inches)
 | | Range (0050 is 50g)

Example: 8032-01-0050-120

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