

Model 8711-01 Accelerometer



Industrial IEPE Accelerometer
>10kHz Bandwidth
-55°C to +125°C Operating Range
Top Exit Connector



The Model 8711-01 are internally shielded rugged IEPE accelerometers designed for industrial condition monitoring. The accelerometers are available in $\pm 5g$ to $\pm 80g$ dynamic ranges and have a flat bandwidth up to greater than 10kHz. The model 8711-01 accelerometer features a top exit MIL-C-5015 connector and is designed to operate in temperature ranges from -55°C to +125°C.

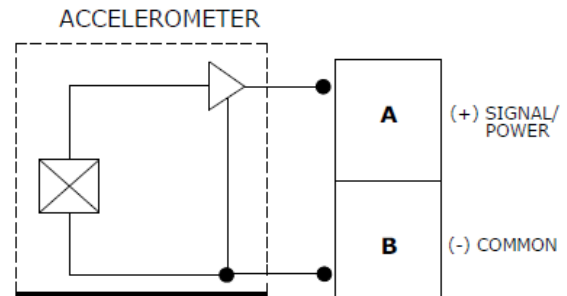
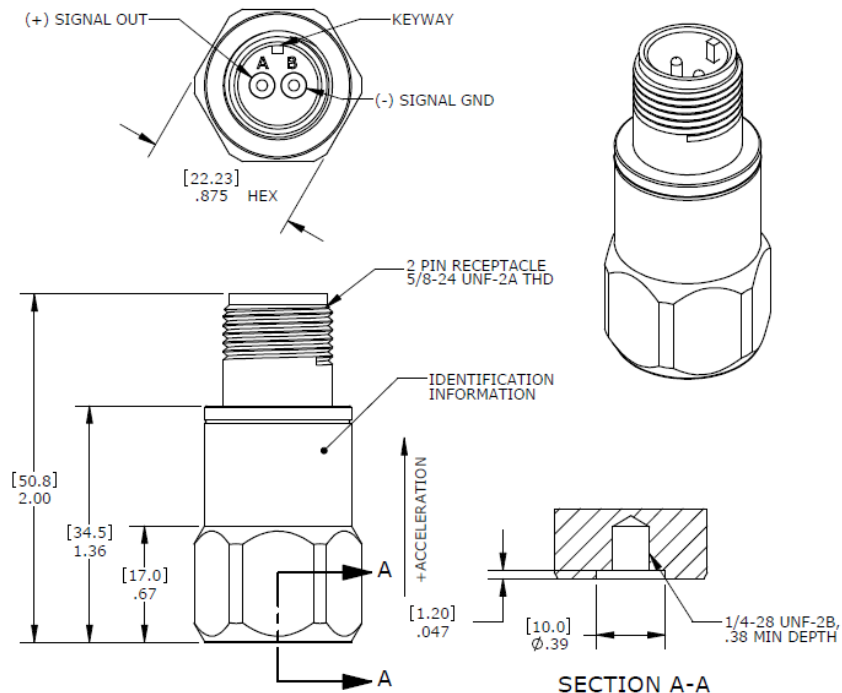
FEATURES

- $\pm 5g$, $\pm 10g$, $\pm 20g$ & $\pm 80g$ Dynamic Ranges
- Wide bandwidth up to >10kHz
- Case Isolated, Internally Shielded
- Hermetically Sealed, Welded
- Annular Shear Mode
- Reverse Wiring Protection
- Stable Temperature Response

APPLICATIONS

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

dimensions



Model 8711-01 Accelerometer

performance specifications

All values are typical at +24°C, 80Hz and 4mA excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1003 for Plug & Play AC Accelerometers.

Parameters

DYNAMIC

	±5	±10	±20	±80	Notes
Range (g)					
Sensitivity (mV/g)	1000	500	250	100	±10%
Frequency Response (Hz)	0.3-4000	0.3-4000	1-7000	1-7000	±5%
Frequency Response (Hz)	0.1-6000	0.1-6000	0.3-10000	0.3-10000	±3dB
Natural Frequency (Hz)	20000	20000	32000	32000	
Non-Linearity (%FSO)	±1	±1	±1	±1	
Transverse Sensitivity (%)	<5	<5	<5	<5	
Shock Limit (g)	2000	2000	5000	5000	
Residual Noise (g RMS)	0.00003	0.00005	0.00010	0.00015	
Weight (grams)	105	105	88	88	

ELECTRICAL

Compliance Voltage (Vdc)	18 to 30				See Note 1
Excitation Current (mA)	2 to 10				
Bias Voltage (Vdc)	10 to 13				Room Temperature
Output Impedance (Ω)	<100				
Insulation Resistance (MΩ)	>100				@ 100Vdc
Warm-up Time (sec)	<5				
Grounding	Case Isolated, Internally Shielded				

ENVIRONMENTAL

Temperature Response (%)	See typical temperature response on following page
Operating Temperature (°C)	-55 to +125
Storage Temperature (°C)	-55 to +125
Humidity	Hermetically Sealed, IP67

PHYSICAL

Sensing Element	Ceramic (shear mode)
Case Material	Stainless Steel
Mounting Torque	24 lb-in (2.7 N-m)

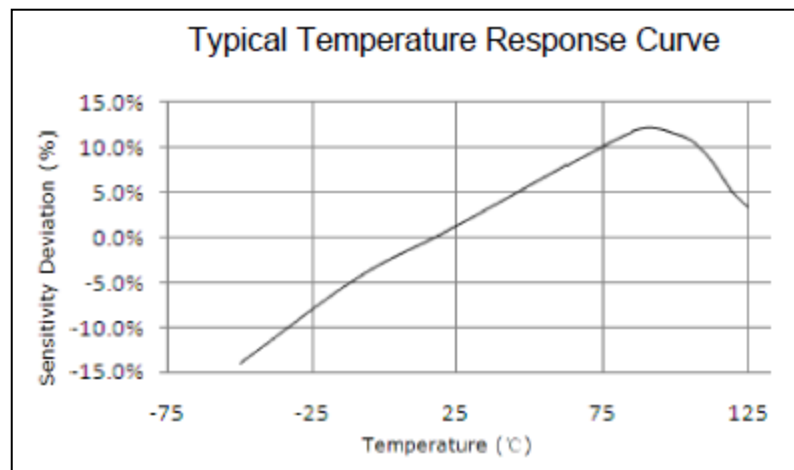
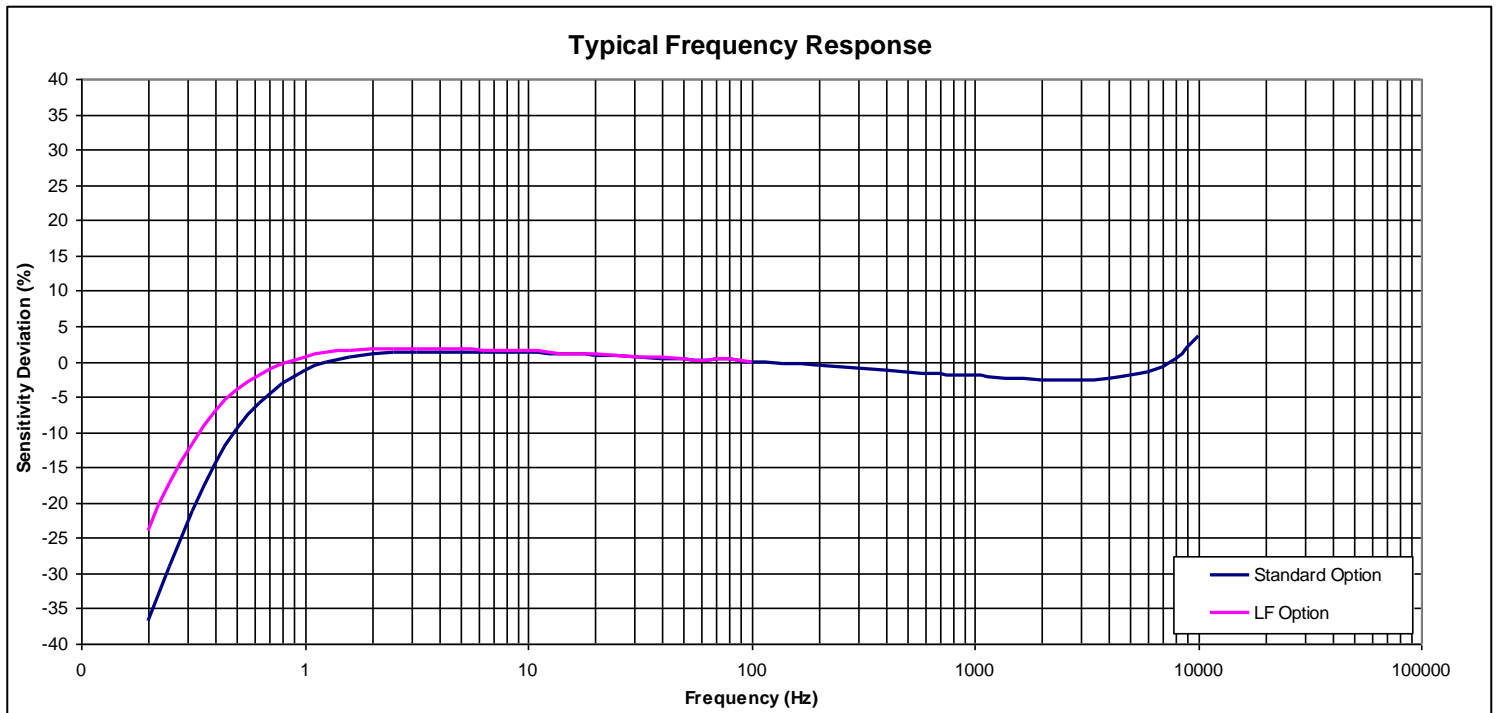
¹ For full dynamic range a minimum compliance voltage of 24Vdc is recommended

Calibration supplied:	CS-SENS-0100	NIST Traceable Amplitude Calibration at 80Hz
Supplied accessories:	AC-A03663	¼-28 to ¼-28 mounting stud
Optional accessories:	316A-XXX	Cable Assembly, Straight (XXX designates length in inches, 10ft standard)
	318A-XXX	Cable Assembly, 90 Degrees (XXX designates length in inches, 10ft standard)
	AC-D03664	¼-28 to M5 mounting stud
	AC-D03665	¼-28 to M6 mounting stud

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Model 8711-01 Accelerometer

performance specifications



ordering info

PART NUMBERING Model Number+Range

8711LF-01-GGG

 | | Range (080 is 80g)

 | Low frequency, required for 5g and 10g ranges

Standard model numbers:

8711LF-01-005

8711LF-01-010

8711-01-020

8711-01-080