

# MODEL 8021-01 & 8022-01 ACCELEROMETER

## SPECIFICATIONS

- EMI Shielded Industrial Accelerometer
- 12kHz Bandwidth.
- -55°C to +125°C Operating Range.
- Side Exit Connector or Integral Cable

The Model 8021-01 & 8022-01 are internally shielded rugged IEPE accelerometers designed for harsh environments. The accelerometers are available in  $\pm 10g$ ,  $\pm 80g$  &  $\pm 500g$  dynamic ranges and have a flat bandwidth up to greater than 12kHz. The model 8021-01 features a side exit MIL-C-5015 connector while the model 8022-01 features an integral cable. The units are hermetically sealed and are designed to operating in temperature ranges from -55°C to +125°C.

## FEATURES

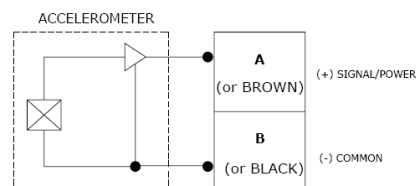
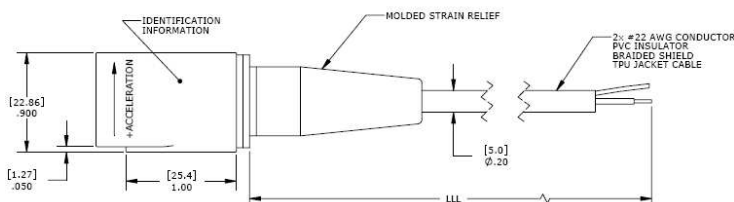
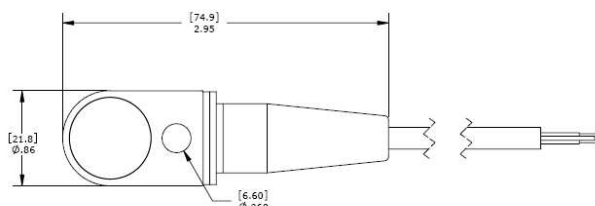
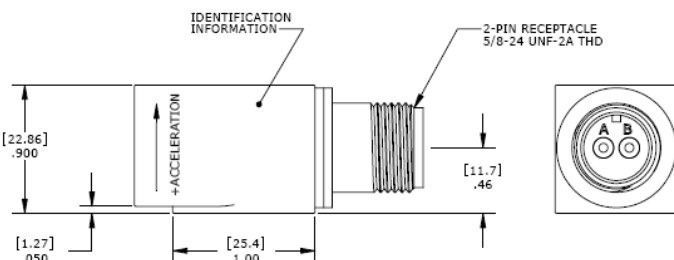
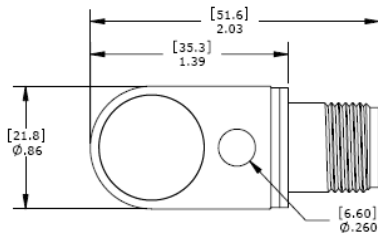
- $\pm 10g$ ,  $\pm 80g$  &  $\pm 500g$  Dynamic Ranges
- Wide bandwidth up to 12kHz
- Case Isolated, Internally Shielded
- Hermetically Sealed, Welded
- Annular Shear Mode
- Reverse Wiring Protection
- Stable Temperature Response

## APPLICATIONS

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



## dimensions



**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.

Parameters				Notes
<b>DYNAMIC</b>				
Range (g)	±10	±80	±500	
Sensitivity (mV/g)	500	100	10	±10%
Frequency Response (Hz)	1-4000	1-8000	1-10000	±10%
Frequency Response (Hz) <sup>2</sup>	0.5-6000	0.5-12000	0.5-15000	±3dB
Natural Frequency (Hz)	28000	32000	42000	
Non-Linearity (%FSO)	±1	±1	±1	
Transverse Sensitivity (%)	<5	<5	<5	
Shock Limit (g)	5000	5000	5000	
Residual Noise (g RMS)	0.00005	0.0001	0.0003	
<b>ELECTRICAL</b>				
Compliance Voltage (Vdc)	18 to 30			See Note 1
Excitation Current (mA)	2 to 10			
Bias Voltage (Vdc)	8 to 12			Room Temperature
Output Impedance (Ω)	<100			
Insulation Resistance (MΩ)	>100			@100Vdc
Warm-up Time (sec)	<1			
Grounding	Case Isolated, Internally Shielded			
<b>ENVIRONMENTAL</b>				
Temperature Response (%)	±5			
Operating Temperature (°C)	-55 to +125			
Storage Temperature (°C)	-55 to +125			
<b>PHYSICAL</b>				
Sensing Element	Ceramic (shear mode)			
Case Material	Stainless Steel			
Weight (grams)	105			
Mounting Torque	24 lb-in (2.7 N-m)			

<sup>1</sup> For full dynamic range a minimum compliance voltage of 24Vdc is recommended

<sup>2</sup> LF option offers a low frequency response to 0.1Hz.

<sup>3</sup> Contact factory for Hazardous Area Approval options

<b>Calibration supplied:</b>	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±10% Frequency Response Limit
<b>Supplied accessories:</b>	AC-A03735	¼-28 captive mounting screw
<b>Optional accessories:</b>	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)

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**ORDERING INFORMATION**

PART NUMBERING    Model Number+Range

802XLF-01-GGG-CCC

| |            |            |            Cable length (120 is 120 inches)

| |            |            Range (080 is 80g)

| |            Low frequency option, otherwise leave blank

|            Electrical Connection Option (1 for 2-pin connector, 2 for integral cable)

Example: 8021-01-080-120

Model 8021-01, 2-pin connector, 80g range, 10ft (120inch) cable length

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