MODEL 8011-01 & 8012-01 ACCELEROMETER

SPECIFICATIONS

- **Triaxial IEPE Accelerometer**
- **16kHz Bandwidth**
- **-55°C to +125°C Operating Range**
- **Top Exit Connector or Integral Cable**

The Model 8011-01 & 8012-01 are internally shielded rugged IEPE accelerometers designed for harsh environments. The accelerometers are available in ±10g, ±80g & ±500g dynamic ranges and have a flat bandwidth up to greater than 16kHz. The model 8011-01 features a top exit MIL-C-5015 connector while the model 8012-01 features an integral cable. The units are hermetically sealed and are designed to operating in temperature ranges from -55°C to +125°C.

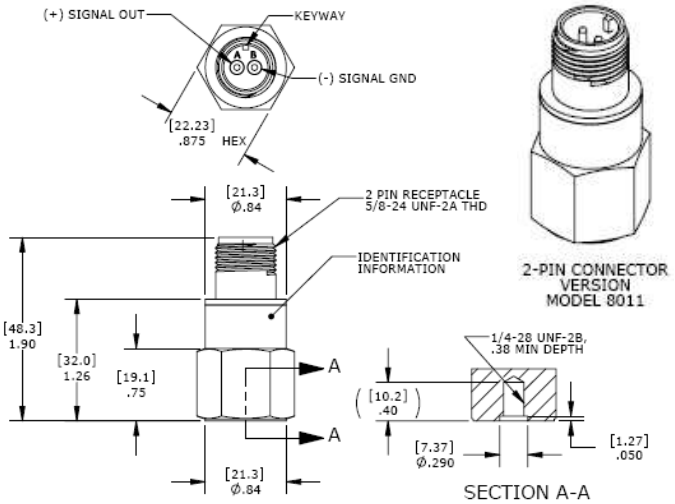
FEATURES

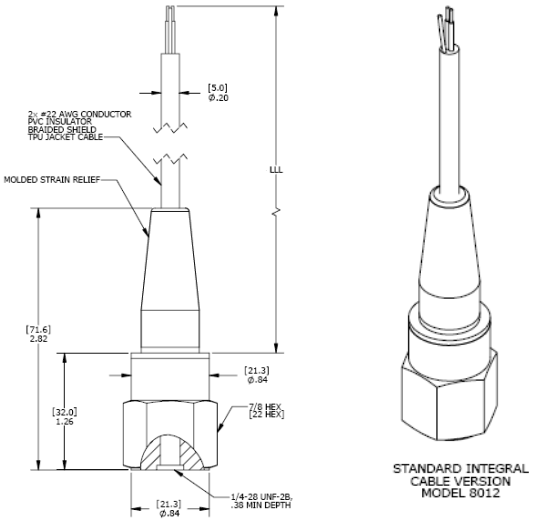
- ±10g, ±80g & ±500g Dynamic Ranges
- Wide bandwidth up to 16kHz
- Case Isolated, Internally Shielded
- Hermetically Sealed, Welded
- Annular Shear Mode
- Reverse Wiring Protection
- Stable Temperature Response

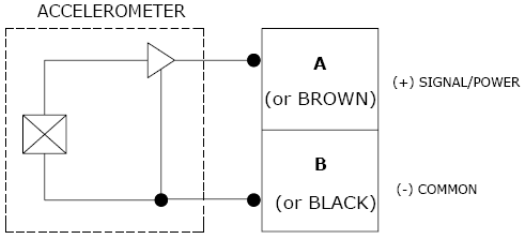
APPLICATIONS

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

dimensions







PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 100Hz 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.

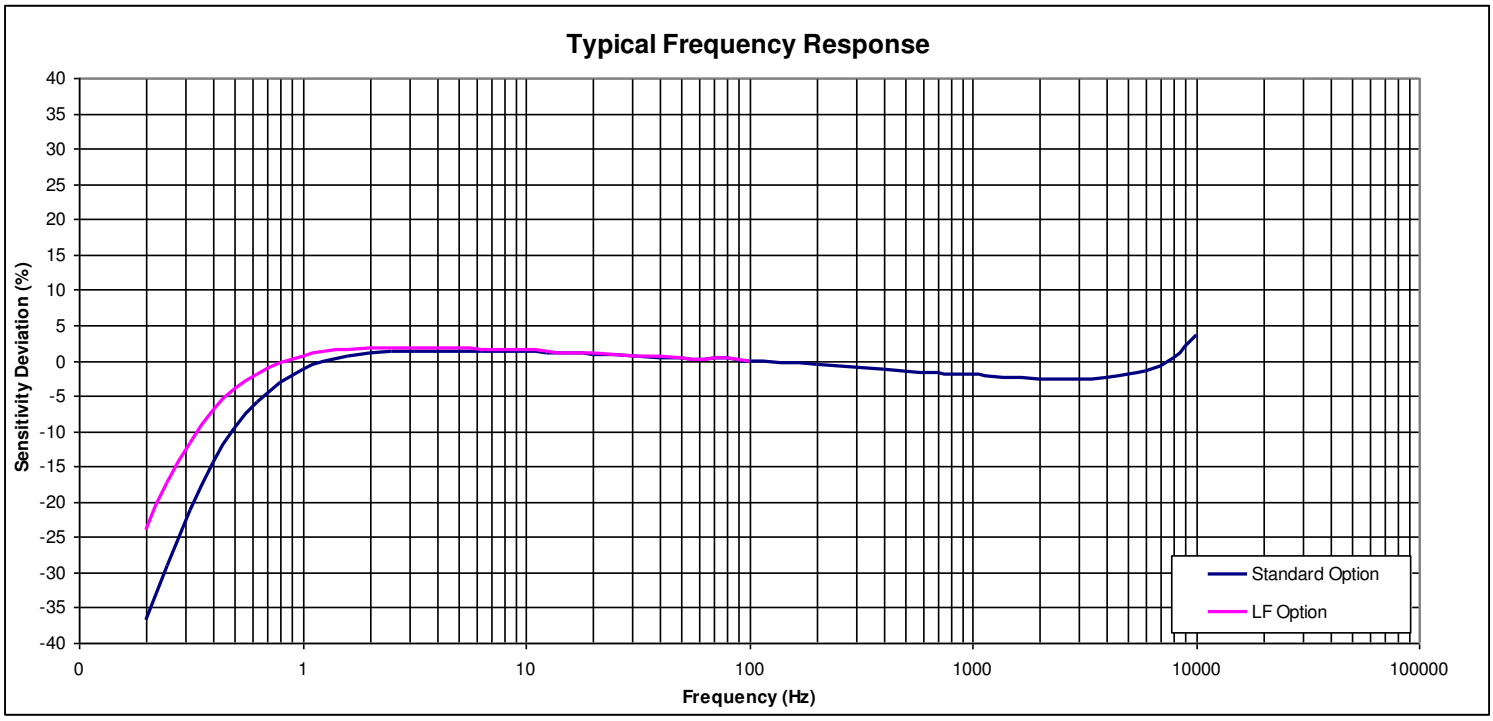
Parameters				
DYNAMIC				**Notes**
Range (g)	±10	±80	±500	
Sensitivity (mV/g)	500	100	10	±10% (±5% Option)
Frequency Response (Hz)	1-4000	1-10000	1-10000	±10%
Frequency Response (Hz) [2]	0.5-7000	0.5-16000	0.5-18000	±3dB
Natural Frequency (Hz)	28000	32000	42000	
Non-Linearity (%FSO)	±1	±1	±1	
Transverse Sensitivity (%)	<5	<5	<5	
Shock Limit (g)	5000	5000	5000	
ELECTRICAL				
Compliance Voltage (Vdc)	18 to 30	18 to 30	18 to 30	See Note 1
Excitation Current (mA)	2 to 10	2 to 10	2 to 10	
Bias Voltage (Vdc)	8 to 12	8 to 12	8 to 12	Room Temperature
Output Impedance (Ω)	<100	<100	<100	
Insulation Resistance (MΩ)	>100	>100	>100	@100Vdc
Residual Noise (g RMS)	0.00005	0.0001	0.0003	
Warm-up Time (sec)	<1	<1	<1	
Grounding	Case Isolated, Internally Shielded			
ENVIRONMENTAL				
Temperature Response (%)	±5 (see typical temperature response on following page)			
Operating Temperature (°C)	-55 to +125			
Storage Temperature (°C)	-55 to +125			
PHYSICAL				
Sensing Element	Ceramic (shear mode)			
Case Material	Stainless Steel			
Weight (grams)	93			
Mounting Torque	24 lb-in (2.7 N-m)			

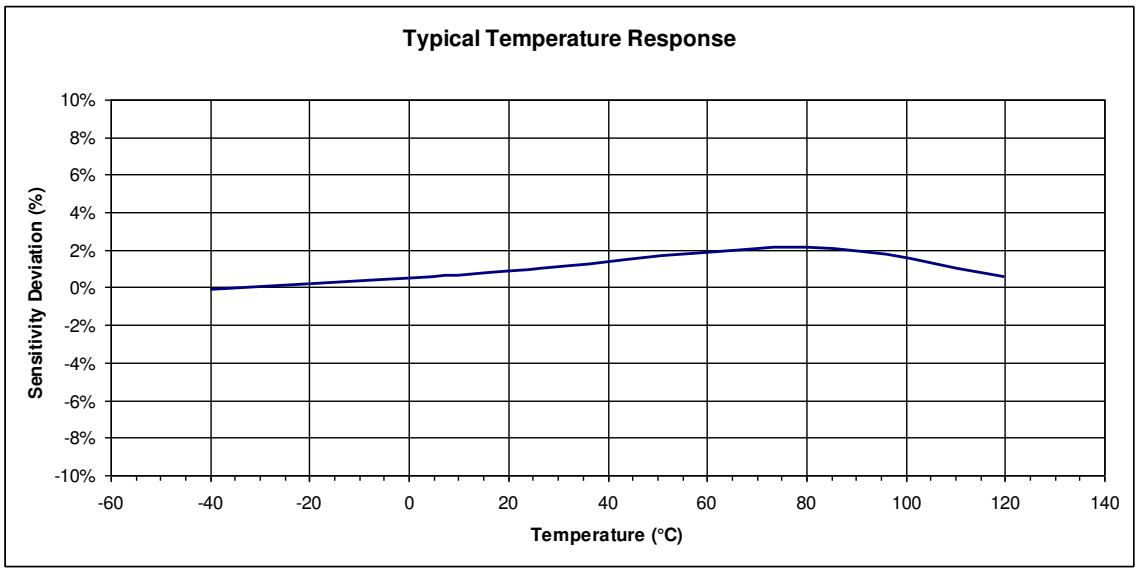
[1] For full dynamic range a minimum compliance voltage of 24Vdc is recommended

[2] LF option offers a low frequency response to 0.1Hz

[3] Contact factory for Hazardous Area Approval options

Calibration supplied:	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±10% Frequency Response Limit
Supplied accessories:	AC-A03663	¼-28 to ¼-28 mounting stud
Optional accessories:	316-XXX	Cable Assembly, Straight (XXX designates length in inches, 10ft standard)
	318-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


Typical Frequency Response
Sensitivity Deviation (%)
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
0
1
10
100
1000
10000
100000
Frequency (Hz)
Standard Option
LF Option


Typical Temperature Response
Sensitivity Deviation (%)
10%
8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%
-10%
-60
-40
-20
0
20
40
60
80
100
120
140
Temperature (°C)

ORDERING INFORMATION

PART NUMBERING Model Number+Range

801XLF-01-GGG
I I I_____ Range (080 is 80g)
I I_____ Low frequency option, otherwise leave blank
I_____ Electrical Connection Option (1 for 2-pin connector, 2 for integral cable)

Example: 8011-01-080
Model 8011-01, 2-pin connector, 80g range

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