MODEL 832HT ACCELEROMETER



SPECIFICATIONS

- **Triaxial Piezoelectric Accelerometer**
- **-40°C to +150°C Temp Range**
- **Full Signal and Power Conditioning**
- **Circuit Board Mountable**

The Model 832HT is a high temperature, board mountable triaxial accelerometer. Featuring stable piezo-ceramic crystals, the accelerometer incorporates full power and signal conditioning with a maximum current consumption of 4 micro-amps.

The model 832HT is available in ±25g to ±500g ranges and provides a flat frequency response up to 6kHz.

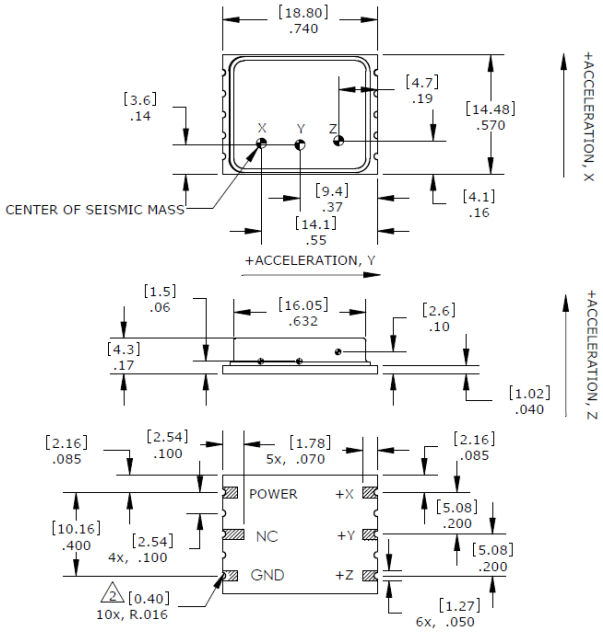
FEATURES

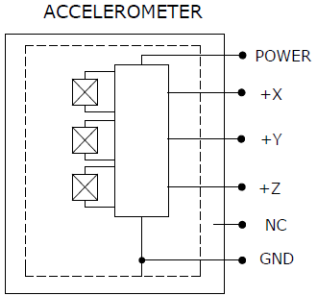
- ±25g to ±500g Dynamic Range
- Triaxial Output
- Hermetically Sealed
- Piezo-ceramic Crystals
- -40° to +150°C Operating Range
- Stable Temperature Response
- Wide Bandwidth to 6000Hz

APPLICATIONS

- Asset Monitoring
- Data Loggers
- Impact Monitoring
- Machine Health Monitoring
- High Temperature Installations

DIMENSIONS





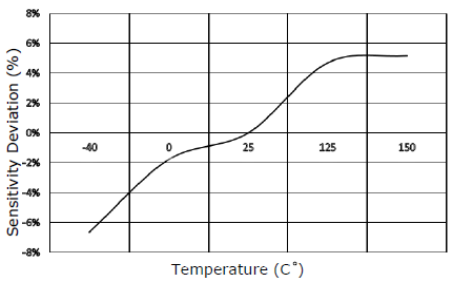
PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 3.3Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters						
DYNAMIC						**Notes**
Range (g)	±25	±50	±100	±200	±500	
Sensitivity (mV/g)	50.0	25.0	12.5	6.25	2.5	±30%
Frequency Response (Hz)	2-6000	2-6000	2-6000	2-6000	2-6000	±2dB
Natural Frequency (Hz)	>30000	>30000	>30000	>30000	>30000	
Non-Linearity (%FSO)	±2	±2	±2	±2	±2	
Transverse Sensitivity (%)	<8	<8	<8	<8	<8	
Shock Limit (g)	5000	5000	5000	5000	5000	
Broadband Noise (µV)	300	250	200	200	200	1Hz-10kHz
Spectral Noise (µg/√Hz)	120	120	120	120	400	@ 10Hz
Spectral Noise (µg/√Hz)	80	80	80	80	320	@ 100Hz
Spectral Noise (µg/√Hz)	40	40	40	40	160	@ 1000Hz

ELECTRICAL	
Bias Voltage (Vdc)	Exc Voltage / 2
Total Supply Current (µA)	<40
Excitation Voltage (Vdc) [2]	3.3 to 5.5
Output Impedance (Ω)	<100
Insulation Resistance (MΩ)	>50 @100Vdc
Warm-Up Time (msec)	30
Shielding	100%
Ground Isolation	Isolated from Mounting Surface
ENVIRONMENTAL	
Temperature Response (%)	See Typical Temperature Response Curve
Operating Temperature (°C)	-40 to +150
Storage Temperature (°C)	-40 to +150
Humidity	Hermetic Solder Seal
PHYSICAL	
Sensing Element	Ceramic (shear mode)
Case Material	Ceramic Base, Nickel Silver Cover
Weight (grams)	3.6

Typical Temperature Response



[1] The model 832HT is not to be reflow soldered at high temperature, manual soldering is recommended. See application note.
[2] The model 832HT can be operated with 2.8V excitation but the full-scale range will be limited.

Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 80Hz

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ORDERING INFORMATION

PART NUMBERING Model Number+Range

832HT-GGGG
I
I_____ Range (0200 is 200g)

Example: 832HT-0200
Model 832HT, 200g

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