MODEL 810M1 ACCELEROMETER

SPECIFICATIONS

- **Piezoelectric Linear Accelerometer**
- **±25g & ±100g Dynamic Ranges**
- **Wide Bandwidth to 6000Hz**
- **Circuit Board Mountable**

The Model 810M1 is a low cost, board mountable accelerometer designed for general purpose vibration measurements. The accelerometer is available in ±25g or ±100g range and provides a flat frequency response up to >6kHz. Featuring stable piezo-ceramic crystals in shear mode, the accelerometer incorporates an amplified ±1.25V output and is offered in two measurement direction options (X or Z axis).

FEATURES

- Two Measurement Directions
- 3.3 to 5.5Vdc Excitation Voltage
- Hermetically Sealed
- Piezo-Ceramic Shear Design
- -40° to +125°C Operating Range

APPLICATIONS

- Asset Monitoring
- Data Loggers
- Impact Monitoring
- Machine Health Monitoring
- System Wake-Up Switch

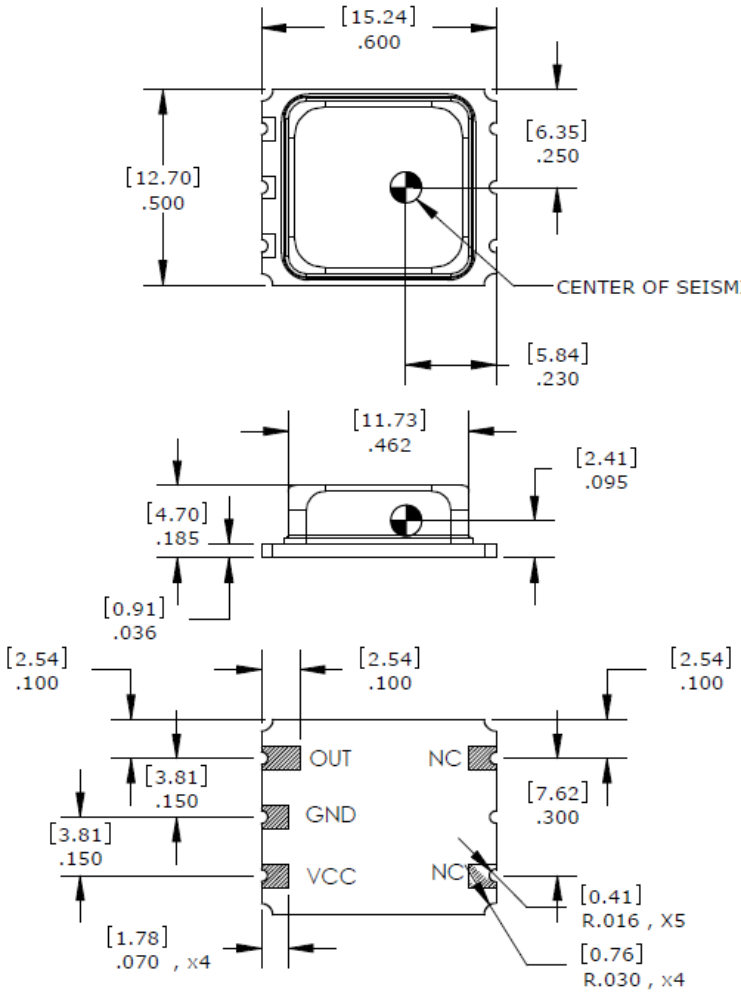
PERFORMANCE SPECIFICATIONS

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

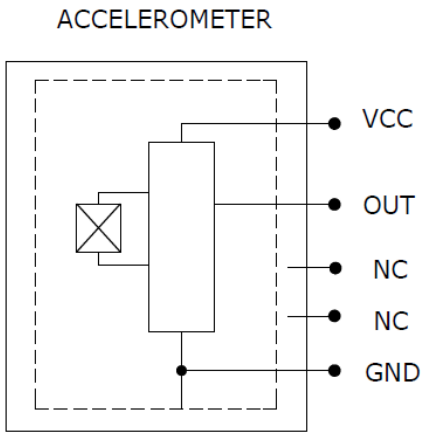
Parameters			
DYNAMIC			Notes
Range (g)	±25	±100	
Sensitivity (mV/g)	50.0	12.5	±30%
Frequency Response (Hz)	2-6000	2-6000	±1dB
Resonant Frequency (Hz)	>30000	>30000	
Non-Linearity (%FSO)	±2	±2	
Transverse Sensitivity (%)	<8	<8	
Shock Limit (g)	2000	2000	
Residual Noise (g RMS)	0.0026	0.0032	2Hz to 10kHz
Spectral Noise, 10Hz (µg√Hz)	160	160	
Spectral Noise, 100Hz (µg√Hz)	40	40	
Spectral Noise, 1kHz (µg√Hz)	16	16	
ELECTRICAL			
Bias Voltage (Vdc)	Excitation Voltage / 2		
Full Scale Output Voltage (V)	±1.25		
Total Supply Current (µA)	22		
Excitation Voltage (Vdc)	3.3 to 5.5		
Output Impedance (Ω)	<100		
Insulation Resistance (MΩ)	>100		@100Vdc
Shielding	100%		
Warm-up Time (msec)	30		
ENVIRONMENTAL			
Temperature Response (%)	-20/+30 from -40°C to +125°C		
Operating Temperature (°C)	-40 to +125		
Storage Temperature (°C)	-40 to +125		
Humidity	Hermetically Sealed		
PHYSICAL			
Sensing Element	Ceramic (shear mode)		
Case Material	Ceramic Base, Nickel Silver Cover		
Weight (grams)	3.0		
Mounting	Solder		

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

DIMENSIONS



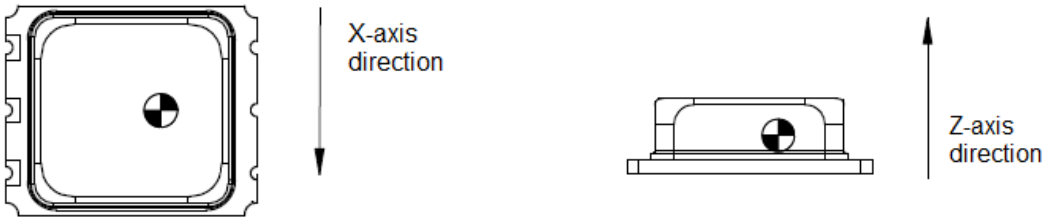
SCHEMATIC



ORDERING INFORMATION

810M1	GGGG	X
Range 0025=25g 0100=100g		
Measurement Direction (see figures below) X=X-axis Z=Z-axis		

Examples;
810M1-0025X
Model 810M1, 25g range, X-axis measurement



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