

MODEL 4033 ACCELEROMETER

DC Response, Silicon MEMS
Triaxial Configuration
Low Cost, Great Value
 $\pm 2g$ & $\pm 6g$ Measurement Range
Rugged Aluminum Housing and Strain Relief

The Model 4033 is a low noise, triaxial DC accelerometer packaged in a rugged anodized Aluminum housing. The accelerometer is offered in $\pm 2g$ & $\pm 6g$ ranges with a nominal 0-200Hz bandwidth. The capacitive silicon MEMS sensing element offers high resolution and long term stability for critical measurement applications. The model 4033 has a usable operating temperature range of -40°C to $+85^{\circ}\text{C}$.

FEATURES

- ◆ 5-30Vdc Excitation Voltage
- ◆ Environmentally Sealed
- ◆ Low Pass Filtered Output
- ◆ Capacitive Silicon MEMS Element
- ◆ Integral #24 AWG Cable
- ◆ Self-Test Enabled

APPLICATIONS

- ◆ Low Frequency Vibration Monitoring
- ◆ Tilt & Inclination Measurement
- ◆ Motion Measurements
- ◆ Structural Monitoring
- ◆ Biomechanics Testing
- ◆ Robotics Measurements

PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 10Vdc excitation unless otherwise stated. TE Connectivity reserves the right to update and change these specifications without notice.

PARAMETERS

DYNAMIC			NOTES
Range (g)	±2	±6	
Sensitivity (mV/g)	1000	333	±10%
Frequency Response (Hz)	0-200	0-200	±5%
Non-Linearity (%FSO)	±1	±1	
Transverse Sensitivity (%)	<3	<3	
Shock Limit (g)	2000	2000	
Residual Noise (µV RMS)	600	240	Passband
Residual Noise (µg/√Hz RMS)	42	51	
Self Test Output Change (mV)	X = +210 ±90 X = +70 ±30 Y = -210 ±90 Y = -70 ±30 Z = -340 ±190 Z = -110 ±65		Ground ST Lead

ELECTRICAL

Zero Acceleration Output (V)	2.5 ±0.10
Excitation Voltage (Vdc)	5 to 30
Excitation Current (mA)	4
Full Scale Output Voltage (Vdc)	±2
Ground Isolation	Isolated from Mounting Surface

ENVIRONMENTAL

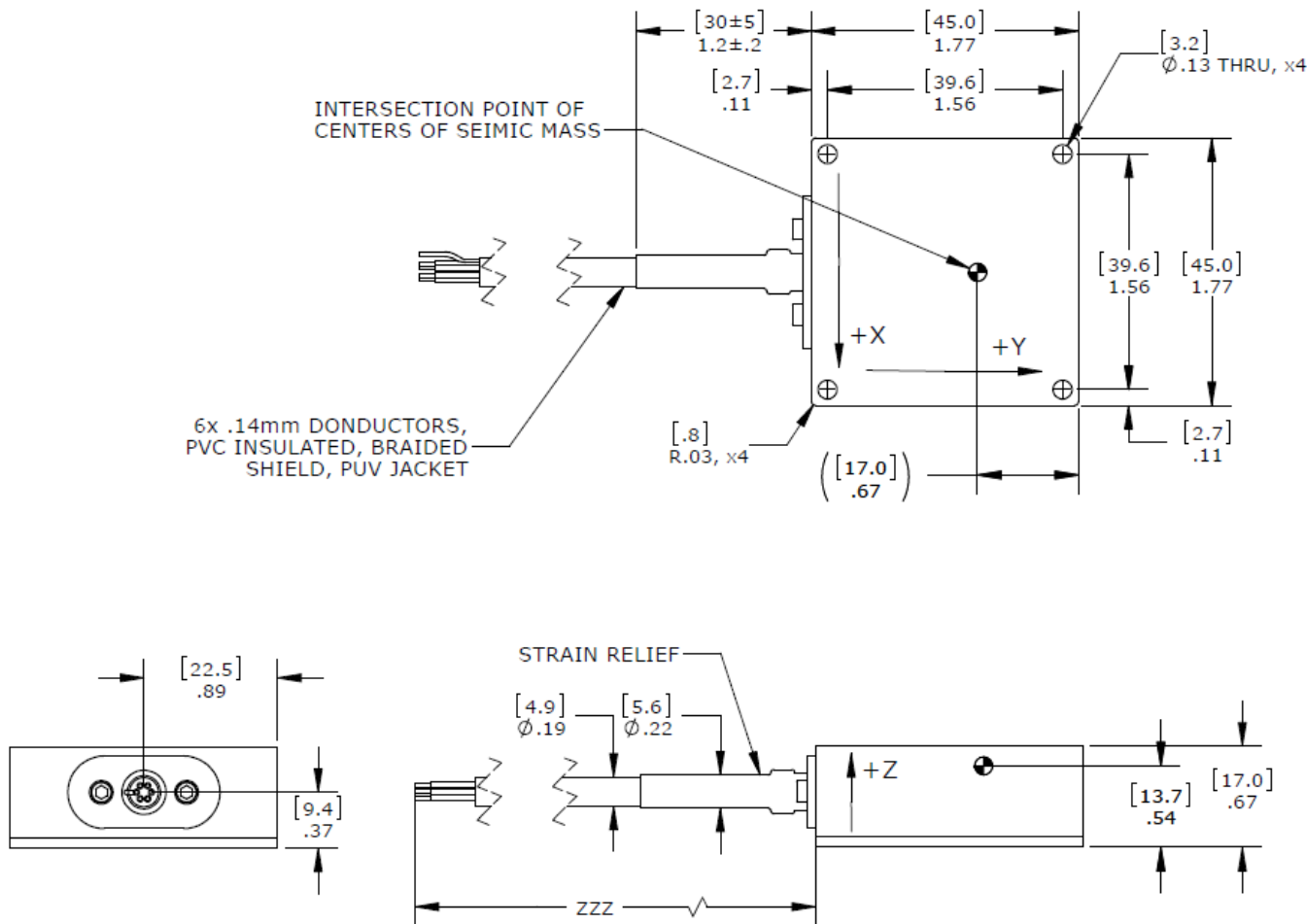
Thermal Zero Shift (%FSO)	±4	From -40° to +85°C
Thermal Sensitivity Shift (%)	±5	From -40° to +85°C
Operating Temperature (°C)	-40° to +85°C	
Humidity	Epoxy Sealed, IP65	

PHYSICAL

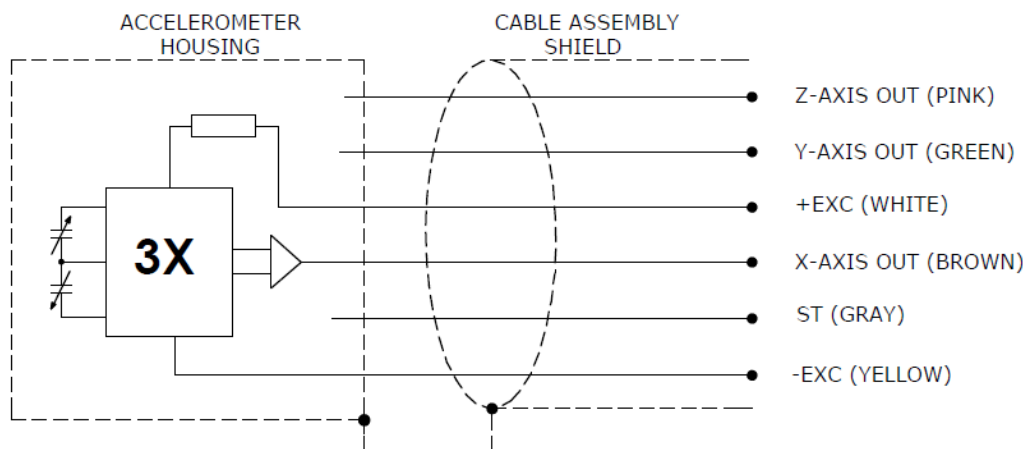
Housing Material	Anodized Aluminum
Weight (grams)	80 (cable not included)
Mounting	4x #4-40 or M3 Screws
Mounting Torque	6 lb-in (2.0 N-m)

Calibration supplied:	CS-SENS-0100	NIST Traceable Amplitude Calibration at 80Hz
Optional accessories:	121	3-Channel Precision Low Noise DC Amplifier

DIMENSIONS



SCHEMATIC



ORDERING INFORMATION

4033	GGG	ZZZ
Series Type		
Range		
002=2g		
006=6g		
Cable length		
120=120 inches		
240=240 inches		
360=360 inches		
197=197 inches, 5 meters		
394=394 inches, 10 meters		

Example; 4033-002-120
Model 4033, 2g range, 120inch (10ft) cable length

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