



## 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  $-40^{\circ}\text{C}$  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**

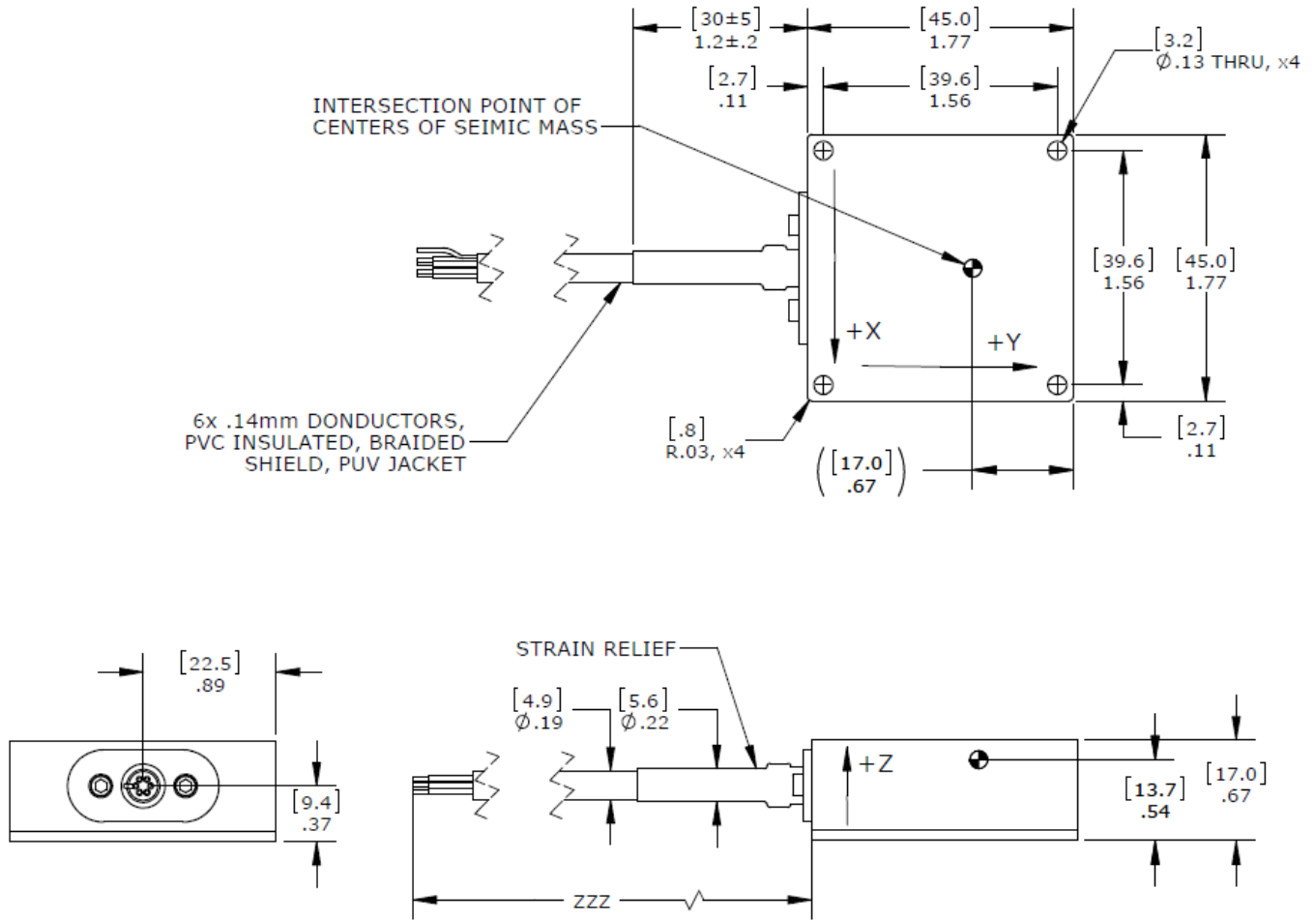
Thermal Zero Shift (%FSO)	±4	From -40° to +85°C
Thermal Sensitivity Shift (%)	±5	From -40° to +85°C
Operating Temperature (°C)	-40° to +85°C	
Humidity	Epoxy Sealed, IP65	

**PHYSICAL**

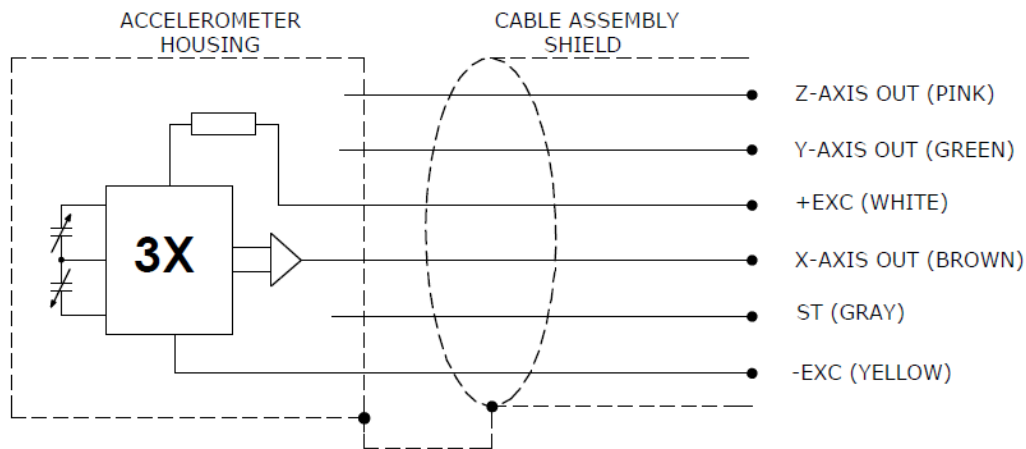
Housing Material	Anodized Aluminum
Weight (grams)	80 (cable not included)
Mounting	4x #4-40 or M3 Screws
Mounting Torque	6 lb-in (2.0 N-m)

**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

<b>4033</b>	<b>GGG</b>	<b>ZZZ</b>
<b>Series Type</b>		
<b>Range</b>		
002=2g		
006=6g		
<b>Cable length</b>		
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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