

## MODEL 4020 & 4030 ACCELEROMETER



### SPECIFICATIONS

- ◆ DC Response, Silicon MEMS
- ◆ Dual & Triaxial Output Options
- ◆ Low Cost, Great Value
- ◆  $\pm 2g$  &  $\pm 6g$  Measurement Range
- ◆ Rugged Construction

The Model 4020 & 4030 are low noise, signal conditioned DC accelerometers packaged in a durable molded housing. The accelerometers are offered in  $\pm 2g$  &  $\pm 6g$  ranges with a nominal 0-200Hz bandwidth. The model 4020 is a dual axis configuration (X&Y axes) while model 4030 is a triaxial configuration. The capacitive silicon MEMS sensing element offers high resolution and long term stability for critical measurement applications.

### 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
- ◆ Laboratory Testing

**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**

			<b>Notes</b>
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 Y = -210 ±90 Z = -340 ±190	X = +70 ±30 Y = -70 ±30 Z = -110 ±65	Ground ST Lead

**ELECTRICAL**

Zero Acceleration Output (V)	2.5 ±0.1
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	-40° to +85°C
Thermal Sensitivity Shift (%)	±5	-40° to +85°C
Operating Temperature (°C)	-40 to 85	
Humidity	Epoxy Sealed, IP65	

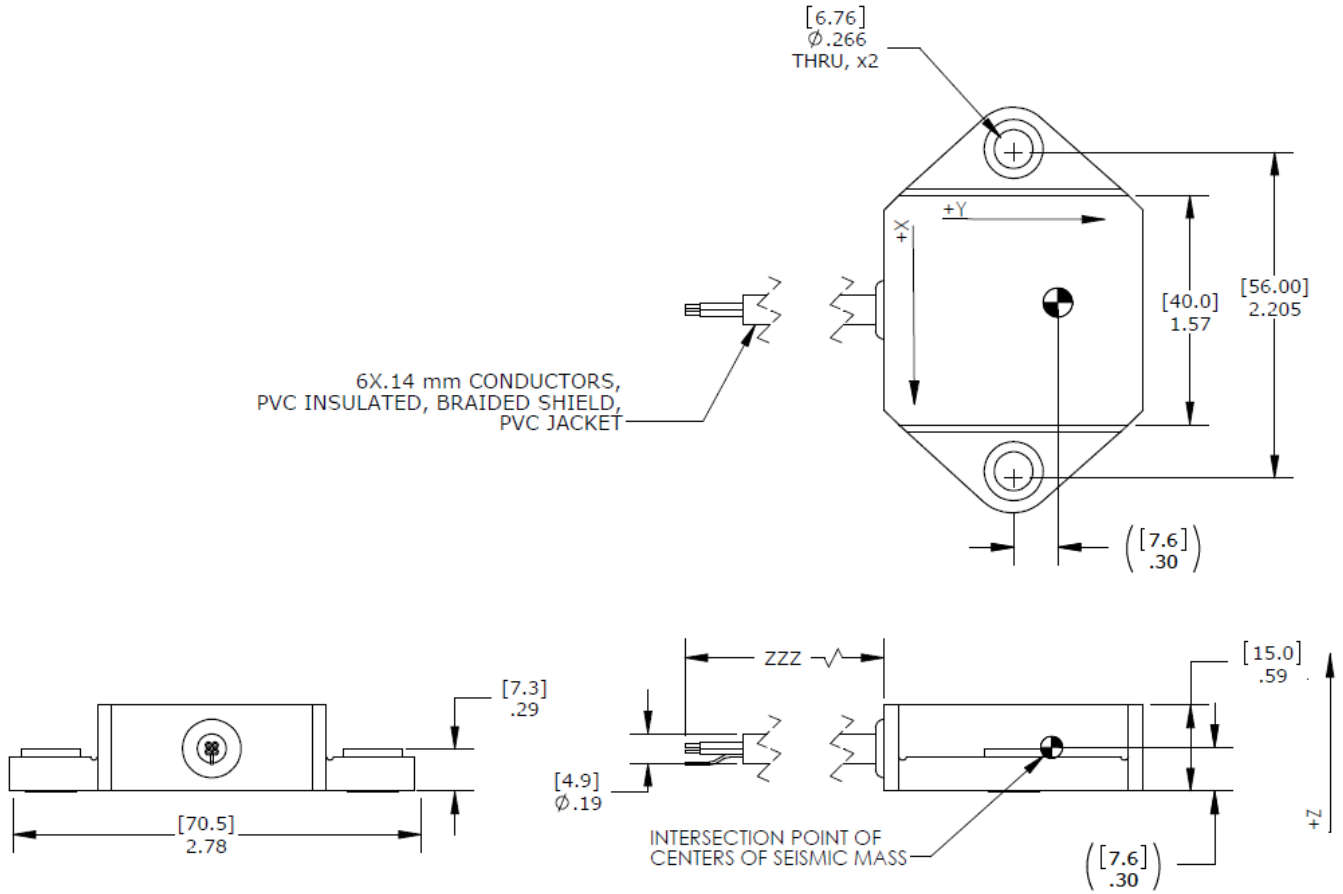
**PHYSICAL**

Housing Material	Nylon 6-6, 30% GF Molded Housing
Weight (grams)	50 (cable not included)
Mounting	2x ¼ or M6 Screws
Mounting Torque	18 lb-in (2.0 N-m)

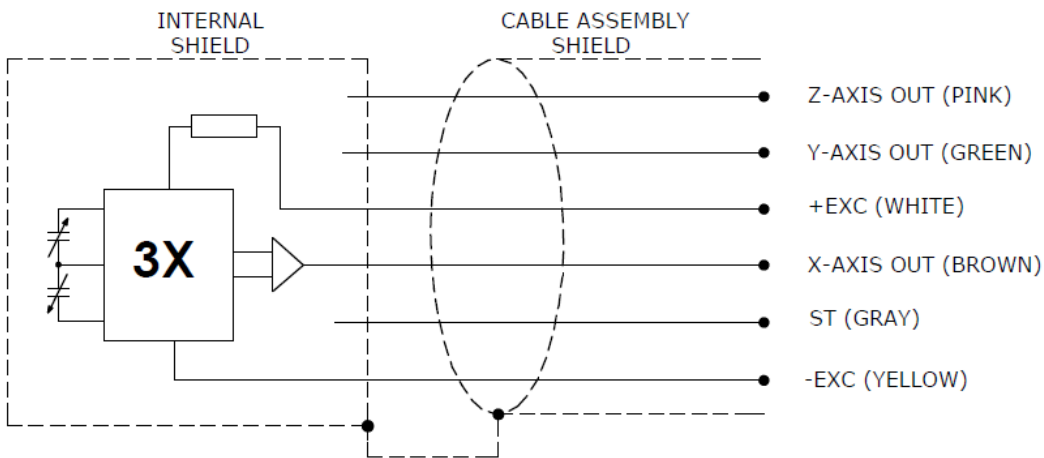
**Optional accessories:**                      121                      3-Channel Precision Low Noise DC Amplifier

# MODEL 4020 & 4030 ACCELEROMETER

## DIMENSIONS



## SCHEMATIC



## ORDERING INFORMATION

4020 (biaxial) or 4030 (triaxial)	GGG	ZZZ
<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; 4030-002-120  
Model 4030 (triaxial), 2g range, 120inch (10ft) cable length

Example; 4020-002-120  
Model 4020 (biaxial), 2g range, 120inch (10ft) cable length

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