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### **Features**

- Capacitive Silicon MEMS Sensor
- Low Pass Filtered Output
- Linearity < 0.5%
- 5-30Vdc Excitation Voltage
- IP65 Environmentally Sealed
- Integral Rugged Cable

### **Applications**

- Low Frequency Vibration Monitoring
- Tilt & Inclination Measurement
- Motion Measurements
- Lab Testing
- · Structural Monitoring

# MODEL 4030 TRIAXIAL MEMS DC ACCELEROMETER

#### Specifications

- Triaxial Capacitive MEMS Accelerometer
- ±2g & ±6g Dynamic Ranges
- Low Cost, Great Value
- Rugged Molded Housing
- Self-Test Enabled

The TE Connectivity model 4030 is a low noise, signal conditioned DC accelerometer packaged in a durable molded housing with brass mounting inserts. The accelerometer is offered in ±2g & ±6g dynamic ranges with a nominal 0-200Hz bandwidth. The capacitive silicon MEMS sensing element offers high resolution and long term stability with minimal non-linearity.

The model 4030 accelerometer incorporates a rugged integral cable assembly with braided shield and PVC jacket. The sensor is fully encapsulated in potting for environmental sealing in critical measurement applications. The accelerometer also includes a self-test feature for remote verification of sensor integrity.

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# **Performance Specifications**

All values are typical at +24°C, 80Hz and 5Vdc excitation unless otherwise stated. TE Connectivity reserves the right to update and change these specifications without notice.

#### **PARAMETERS**

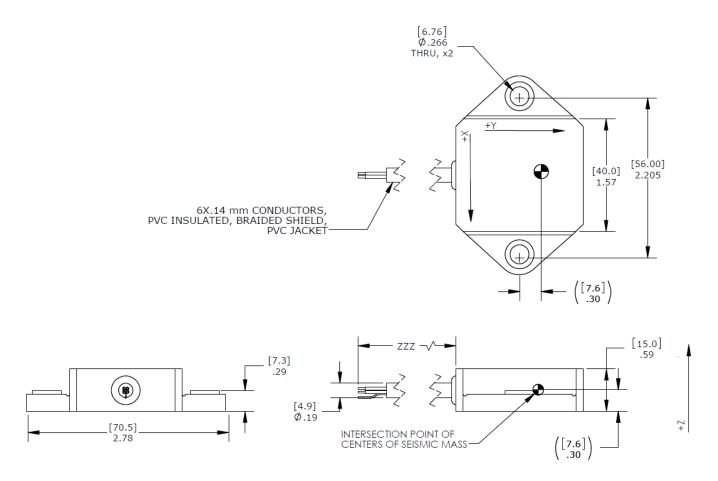
FANAMETERS			
DYNAMIC			NOTES
Range (g)	±2	±6	
Sensitivity (mV/g)	1000	333	±10%
Frequency Response (Hz)	0-200	0-200	±5%, All Axes
Frequency Response (Hz)	0-600	0-600	±1dB, All Axes
Transverse Sensitivity (%)	<3	<3	
Non-Linearity (%FSO)	±0.5	±0.5	BFSL
Shock Limit (g)	2000	2000	
Residual Noise (µV rms)	600	240	Passband
Spectral Noise (µg/√Hz rms)	42	51	
Self Test Output Change (mV)	$X = +210 \pm 90$ $Y = -210 \pm 90$ $Z = -340 \pm 190$	$X = +70 \pm 30$ $Y = -70 \pm 30$ $Z = -110 \pm 65$	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		From -40 to +85°C
Thermal Sensitivity Shift (%)	±5		From -40 to +85°C
Operating Temperature	-40 to +85°C (-40 to +185°F)		
Humidity	Epoxy Sealed, IP69	Epoxy Sealed, IP65	
PHYSICAL			
Housing Material	Nylon 6-6, 30% GF Molded Housing, Brass Inserts at Mounting Holes		
Cable	6 x 0.14mm Conductors PVC Insulated, Braided Shield, PVC Jacket		
Weight (grams)	50	50 Cable not include	
Mounting	2x 1/4inch or M6 M	2x 1/4inch or M6 Metric Screws	
Mounting Torque	18 lb-in (2.0 N-m)		

Optional accessories:

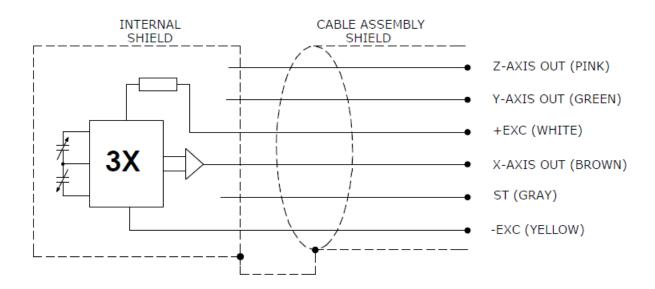
121

3-Channel Precision Low Noise DC Amplifier

# **Dimensions**



#### **Schematic**



# **Ordering Information**

### Add #### A

Example; 4030-002-120

Model 4030, 2g range, 120inch (10ft) cable length

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