

## 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**

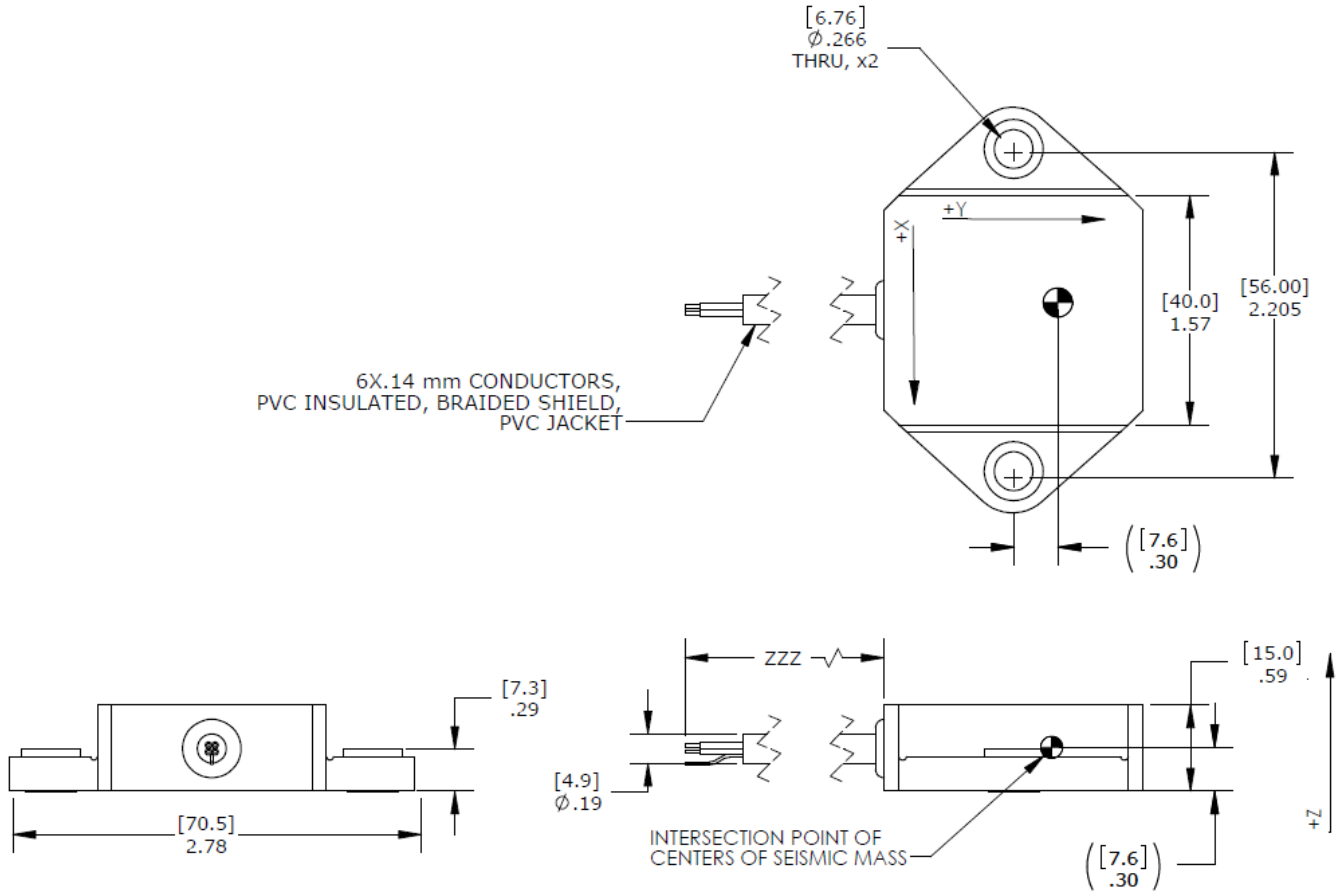
Thermal Zero Shift (%FSO)	±4	-40° to +85°C
Thermal Sensitivity Shift (%)	±5	-40° to +85°C
Operating Temperature (°C)	-40 to 85	
Humidity	Epoxy Sealed, IP65	

**PHYSICAL**

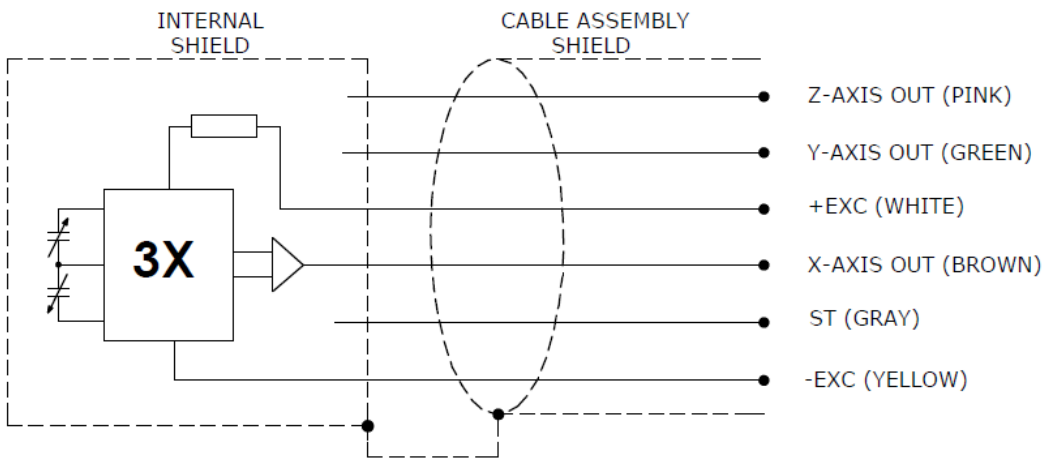
Housing Material	Nylon 6-6, 30% GF Molded Housing
Weight (grams)	50 (cable not included)
Mounting	2x ¼ or M6 Screws
Mounting Torque	18 lb-in (2.0 N-m)

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

**DIMENSIONS**



**SCHEMATIC**



## ORDERING INFORMATION

<b>4020 (biaxial) or 4030 (triaxial)</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; 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

### NORTH AMERICA

Measurement Specialties, Inc.,  
a TE Connectivity Company  
Tel: 800-522-6752  
[customercare.hmpt@te.com](mailto:customercare.hmpt@te.com)

### EUROPE

MEAS France SAS  
a TE Connectivity Company  
Tel: +31 73 624 6999  
[customercare.lcsb@te.com](mailto:customercare.lcsb@te.com)

### ASIA

Measurement Specialties (China), Ltd.,  
a TE Connectivity Company  
Tel: 0400-820-6015  
[customercare.shzn@te.com](mailto:customercare.shzn@te.com)

### TE.com/sensorsolutions

MEAS France SAS and Measurement Specialties (China), Inc., are TE Connectivity companies.

TE Connectivity, TE, TE connectivity (logo) are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2017 TE Connectivity Ltd. All Rights Reserved.