

# Model 4020 & 4030 Accelerometer



DC Response, Silicon MEMS  
Dual & Triaxial Output Options  
Low Cost, Great Value  
±2g & ±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 ±2g & ±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.

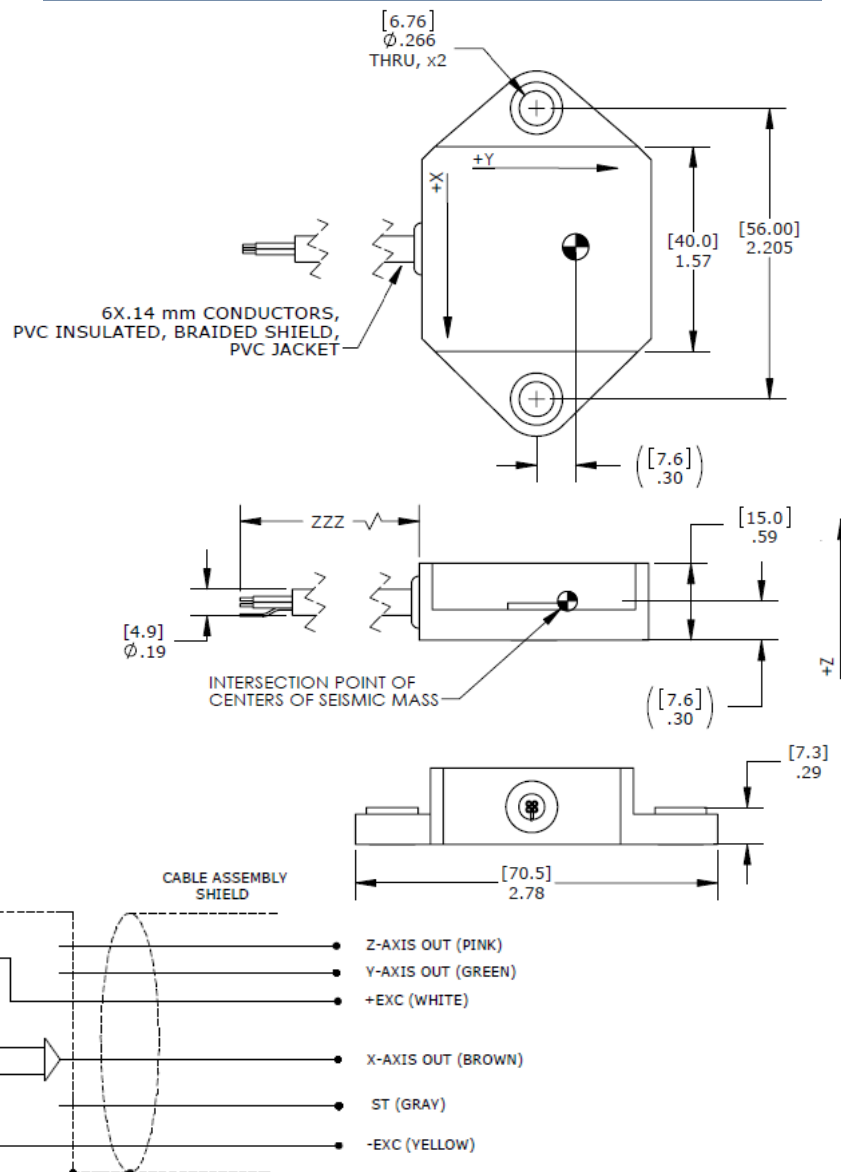
## FEATURES

- 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

## dimensions



# Model 4020 & 4030 Accelerometer

## performance specifications

All values are typical at +24°C, 10Hz and 5Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

### 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)	50	42	
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, Brass Inserts at Mounting Holes
Weight (grams)	50
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

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## ordering info

PART NUMBERING Model Number+Range+Cable Length

40XX-GGG-CCC

| | | Cable Length (120 is 120 inches)

| | Range (002 is ±2g)

| Dual or Triaxial Configuration (4020; Dual Axis, 4030; Triaxial)

Example: 4030-002-120

Model 4030 (triaxial), ±2g range, 120 inch cable length