

Model 4332M3 Accelerometer

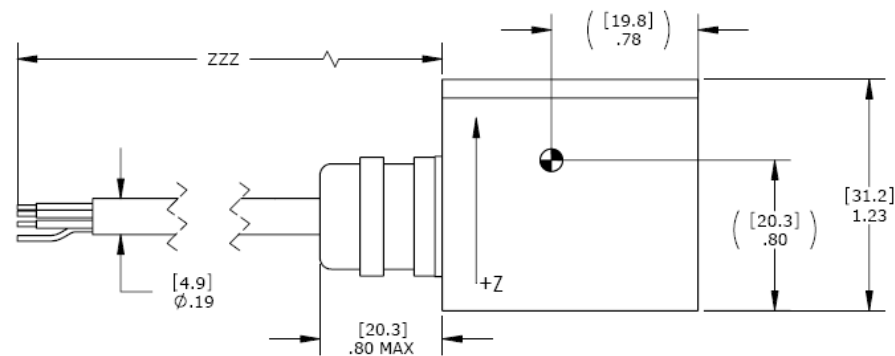
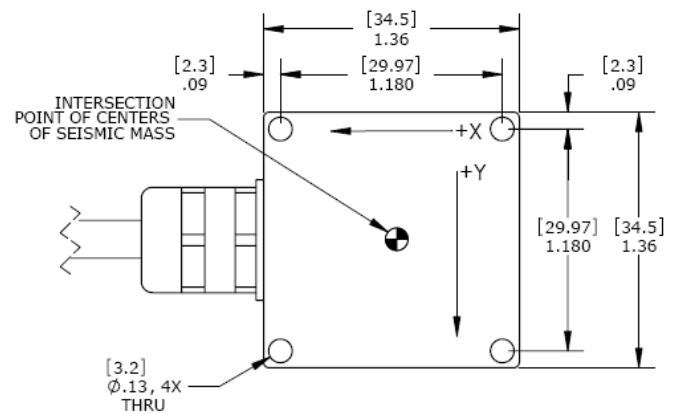


4-20mA Signal Output
MEMS Triaxial Accelerometer
IP68 Protection, 40m Depth
Low Noise, High Resolution

The **Model 4332M3** is 4-20mA output MEMS triaxial accelerometer offering both static and dynamic response. The accelerometer is packaged in a corrosion resistant stainless steel housing and is offered in $\pm 2g$ to $\pm 20g$ range. The model 4332M3 features an integral cable and is certified to IP68 protection up to 40m depth with an operating temperature range of -40°C to $+85^{\circ}\text{C}$.



dimensions



FEATURES

- Stainless Steel Housing
- Corrosion Resistant
- Three Independent Circuits
- $\pm 2g$ to $\pm 20g$ Dynamic Range
- DC Response
- Temperature Compensation

APPLICATIONS

- Transportation Measurements
- Structural Monitoring
- Bridge Monitoring
- Low Frequency Applications
- Submersible Measurements

WIRE DESIGNATIONS: WHITE = INPUT (EXCITATION)
BROWN = OUTPUT X AXIS
GREEN = OUTPUT Y AXIS
PINK = OUTPUT Z AXIS
YELLOW = COMMON (CIRCUIT GROUND)
GRAY = NO CONNECTION

Model 4332M3 Accelerometer

performance specifications

All values are typical at +24°C, 10Hz and 12Vdc 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

	4332M3-002	4332M3-005	4332M3-010	4332M3-020	Notes
Model Number	4332M3-002	4332M3-005	4332M3-010	4332M3-020	
Range (g)	±2	±5	±10	±20	
Sensitivity (mA/g)	4.0	1.6	0.8	0.4	±10%
Frequency Response (Hz)	0-200	0-300	0-300	0-300	±5%
-3dB Cutoff Frequency (Hz)	1000	1000	1000	1000	
Rolloff Above Cutoff Frequency (dB/dec)	-40	-40	-40	-40	
Natural Frequency (Hz)	700	800	1000	1500	
Non-Linearity & Hysteresis (%FSO)	±0.5	±0.5	±0.5	±0.5	
Transverse Sensitivity (%)	<3	<3	<3	<3	<2 Typical
Damping Ratio	0.7	0.7	0.7	0.7	
Shock Limit (g)	5000	5000	5000	5000	
Residual Noise (µg RMS)	25	50	100	200	Passband

ELECTRICAL

Zero Acceleration Output (mA)	12.0 ±0.25				
Excitation Voltage (Vdc)	7 to 24				
Quiescent Current (mA)	<15				
Full Scale Span (mA)	4 to 20				
Output Impedance (Ω)	<100				
Insulation Resistance (MΩ)	>100				@100Vdc
Turn On Time (msec)	<100				
Grounding	Case Grounded, Internally Isolated Circuit				

ENVIRONMENTAL

Thermal Zero Shift (%FSO/°C)	±0.04				0 to +65°C
Thermal Sensitivity Shift (%/°C)	±0.04				0 to +65°C
Operating Temperature (°C)	-40 to 85				
Compensated Temperature (°C)	0 to 65				
Storage Temperature (°C)	-40 to 85				
Humidity	IP68, 40m Depth				

PHYSICAL

Case Material	316 Stainless Steel
Cable	PVC Insulated Leads (6x 0.14 mm ²), Braided Shield, PVC Jacket
Weight (without cable)	185 grams
Mounting	4x #4 or M3 Screws
Mounting Torque	6 lb-in (0.7 N-m)

Calibration supplied: CS-LFREQ-0010 NIST Traceable Amplitude Calibration from 1Hz to 100Hz

Supplied accessories: 4x #4-40 (1 1/2" length) Socket Head Cap Screw and Washer

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

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ordering info

PART NUMBERING Model Number+Range+ Cable Length

4332M3-GGG-CCC

I I _____ Cable Length (-120 is 120 inches)
 I _____ Range (002 is 2g)

Example: 4332M3-002-120

Model 4332M3, 2g, 120" Cable

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