Model 4332 Accelerometer

MEMS Triaxial Accelerometer
Temperature Calibrated
IP68 Protection
Low Noise, High Resolution



The Model 4332 is a low noise triaxial accelerometer offering both static and dynamic response. The accelerometer is packaged in an anodized aluminum housing and is offered in ±2g & ±5g range. The model 4332 features an integral cable and is certified to IP68 protection. The accelerometer incorporates a 50Hz LP filter and an operating temperature range of -40°C to +85°C.

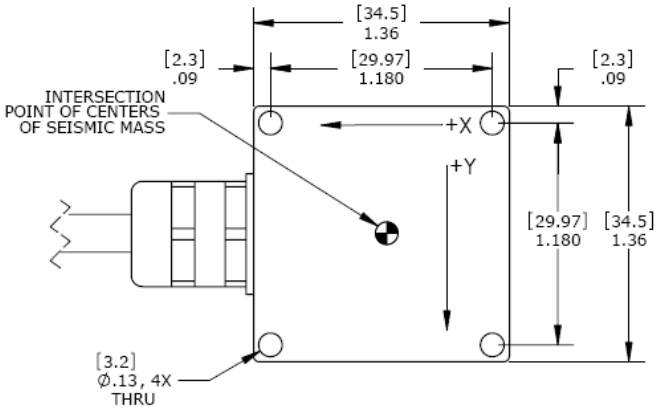
FEATURES

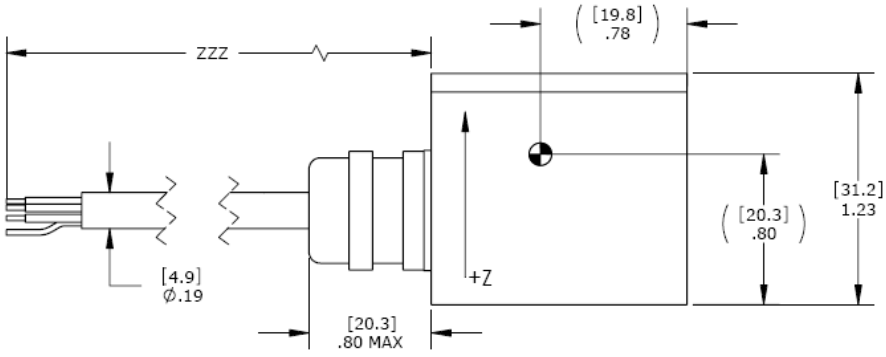
- Micro-g Resolution
- Three Independent Circuits
- Low Current Consumption
- ±2g & ±5g Dynamic Range
- DC Response
- Temperature Compensation

APPLICATIONS

- Transportation Measurements
- Structural Monitoring
- Bridge Monitoring
- Low Frequency Applications
- Motion Analysis

dimensions





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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			**Notes**
Range (g)	±2	±5	
Sensitivity (mV/g)	1000	400	±10%
-3dB Cutoff Frequency (Hz)	50 +20/-0	50 +20/-0	
Rolloff Above Cutoff Frequency (dB/dec)	-40	-40	
Natural Frequency (Hz)	700	700	
Non-Linearity & Hysteresis (%FSO)	±0.5	±0.5	
Transverse Sensitivity (%)	<3	<3	<2 Typical
Damping Ratio	0.7	0.7	
Shock Limit (g)	5000	5000	
ELECTRICAL			
Zero Acceleration Output (V)	2.5 ±0.1	2.5 ±0.1	
Excitation Voltage (Vdc)	5 to 30	5 to 30	
Excitation Current (mA)	<15	<15	
Full Scale Output Voltage Swing (Vdc)	0.5 to 4.5	0.5 to 4.5	
Output Impedance (Ω)	<100	<100	
Insulation Resistance (MΩ)	>50	>50	@50Vdc
Turn On Time (msec)	<100	<100	
Residual Noise (μg)	80	50	0.1 to 100Hz
Ground Isolation	Isolated from Mounting Surface		
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		
PHYSICAL			
Case Material	Anodized Aluminum		
Cable	PVC Insulated Leads, Braided Shield, PVC Jacket		
Weight (grams)	<100		
Mounting	4x #4 or M3 Screws		
Mounting Torque	6 lb-in (0.7 N-m)		
AWG (model 4332)	6x 0.14 mm^2		

Calibration supplied: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 1Hz to 100Hz

Supplied accessories: 4x #4-40 (1 ½" length) Socket Head Cap Screw and Washer

Optional accessories: 101 Three Channel DC Signal Conditioner Amplifier

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schematic

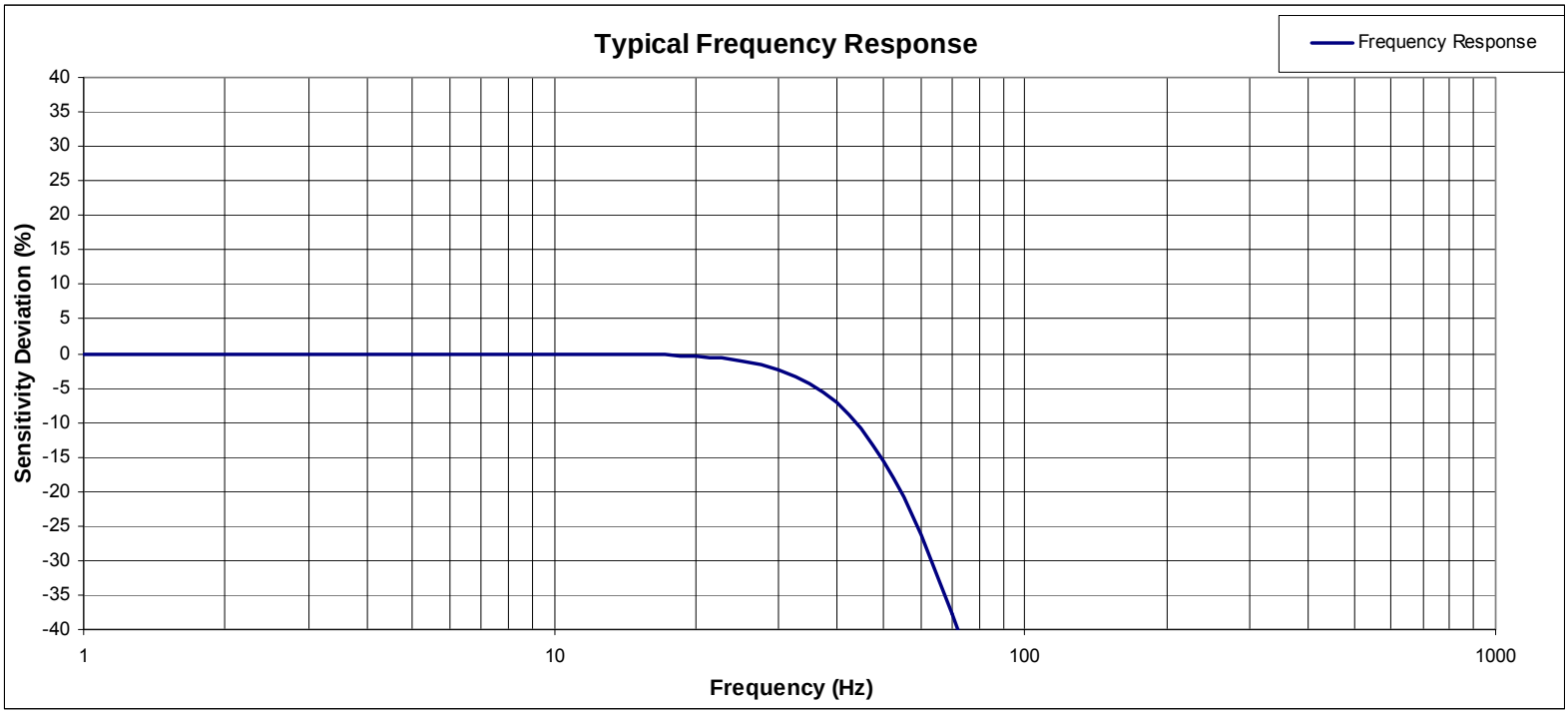
4332 Schematic

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

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ordering info

PART NUMBERING Model Number+Range+ Cable Length (as applicable)

4332-GGG-CCC
I I
I I_____Cable (120 is 120 inches)
I_____Range (002 is 2g)

Example: 4332-002-120
Model 4332, 2g, 120” Cable

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