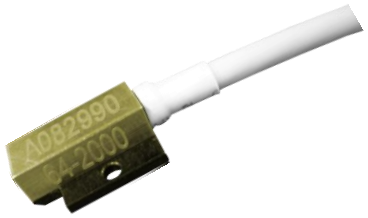
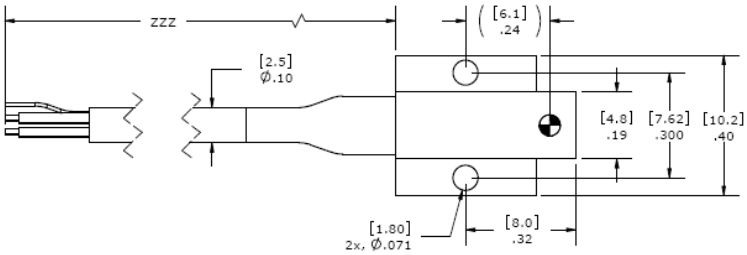
Model 64 Accelerometer

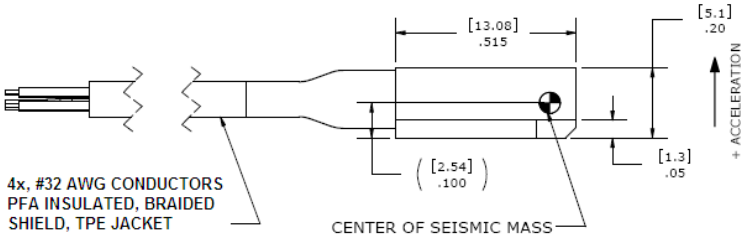
DC Response Accelerometer
Durable Low Noise Cable
Small Package
SAE J2570 Compliant



The Model 64 Accelerometer
is based on an advanced piezoresistive MEMS sensing element which offers exceptional dynamic range and stability. This unit features a full bridge output configuration with a compensated temperature range from 0 to +50º C. A slight amount of internal gas damping provides outstanding shock survivability and a flat amplitude and phase response up to 7kHz.
The Model 64 is compliant with SAE J211 standards for anthropomorphic dummy instrumentation.

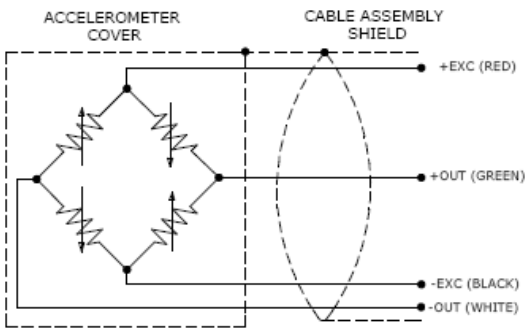
dimensions





FEATURES
- Piezoresistive MEMS Sensor
- ±50g to ±6,000g Ranges
- 2-10 Vdc Excitation
- -40 to +121ºC Temp Range
- Low Noise Jacketed Cable
- 1% Transverse Sensitivity Option
- <±25 mV Zero Offset

APPLICATIONS
- Safety Crash Testing
  - Auto
  - Truck
  - Recreational Vehicles
- Shock Testing



32 Journey Ste. 150 Aliso Viejo, CA 92656 949-716-5377 t&m@meas-spec.com

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Angst+Pfister Sensors and Power

Model 64 Accelerometer

performance specifications

All values are typical at ±24°C, 100 Hz and 10Vdc 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)	±50	±100	±200	±500	±2000	±6000	
Sensitivity (mV/g) [1]	2	0.9	0.8	0.4	0.15	0.10	
Frequency Response (Hz)	0-400	0-500	0-600	0-800	0-3000	0-3000	±2% (±3% for 2000g/6000g)
	0-1000	0-1200	0-1400	0-2000	0-5000	0-5000	±½dB (±7% for 2000g/6000g)
	0-1400	0-1500	0-1900	0-2800	0-7000	0-7000	±1dB (±13% for 2000g/6000g)
Resonant Frequency (Hz)	4000	6000	8000	15000	26000	26000	
Damping Ratio	0.5	0.5	0.5	0.3	0.05	0.05	Typical
Shock Limit (g)	5000	5000	5000	10000	10000	10000	
Non-Linearity (% of reading)	±1	±1	±1	±1	±1	±1	
Repeatability (Equiv. g)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	After full scale shock
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	<1% Option

ELECTRICAL		
Zero Acceleration Output (mV)	<±25	<±10mV Option
Excitation (Vdc)	2 to 10	
Input Resistance (Ω)	2400-6000	
Output Resistance (Ω)	2400-6000	
Insulation Resistance (MΩ)	>100	@100Vdc
Residual Noise (µV RMS)	<10	
Ground Isolation	Isolated from mounting surface	
ENVIRONMENTAL		
Thermal Zero Shift (%FSO/°C)	±0.04	From 0 to +50°C
Thermal Sensitivity Shift (%/°C)	-0.20 ±0.05	From 0 to +50°C
Operating Temperature (°C)	-40 to +121	
Storage Temperature (°C)	-40 to +121	
Humidity	Epoxy Sealed, IP61	
PHYSICAL		
Case & Cover Material	Anodized Aluminum Case, Brass Cover	
Cable (Integral 30 Foot Cable)	4x #32 AWG Conductors PFA Insulated, Braided Shield, TPE Jacket	
Weight (grams)	1.0	Cable Not Included
Mounting	2x #0-80 x 3/16" Socket Head Cap Screws	Torque 3 lb-in

[1] Output is ratiometric to excitation voltage

Calibration supplied:	CS-FREQ-0100	NIST Traceable Amplitude Calibration from 20Hz to ±1dB Frequency Limit
Supplied accessories:	AC-A02053	2x #0-80 (3/16 length) Socket Head Cap Screw, 2x #0 Washer, 1x Allen Key
Optional accessories:	MTG-E4	Triaxial Mounting Block
	121	3-Channel Precision Low Noise DC Amplifier
	140	Auto-Zero Inline Amplifier

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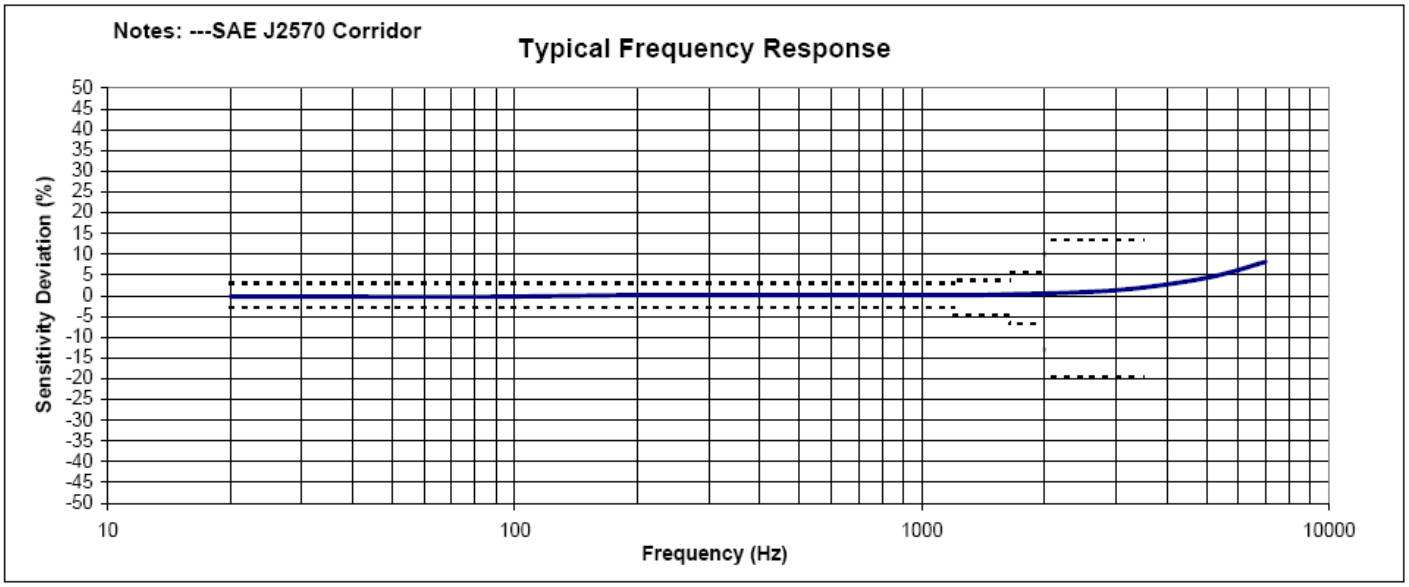

ordering info

PART NUMBERING Model Number+Range+Excitation+Cable Length+Options

64-GGGG-YY-CCCT-XY
I I I I I_____Connector Options (otherwise leave as 'XY')
I I I I_____1% Transverse Sensitivity when "T" is present.
I I I_____Cable (360 is 360 inches)
I I _____Excitation Voltage (10 is 10Vdc)
I_____Range (0100 is 100g)

Example: 64-2000-10-360-XY
Model 64, Standard Configuration: 2000g, 10V Excitation, 360" (30ft) Cable), No Options.

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We are here for you. Addresses and Contacts.

Headquarter Switzerland:

Angst+Pfister Sensors and Power AG
Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
sensorsandpower@angst-pfister.com

Office Germany:

Angst+Pfister Sensors and Power Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87 00
sensorsandpower.de@angst-pfister.com

Scan here and get an overview of personal contacts!

sensorsandpower.angst-pfister.com