

MODEL 4630 Accelerometer

MEMS Triaxial Accelerometer

DC Response

Accurate Temperature Compensation

Signal Conditioned Output

10,000g Over-Range Protection

DESCRIPTION

The **Model 4630** is a low noise triaxial accelerometer offering both static and dynamic response. The piezoresistive accelerometer incorporates integral temperature compensation that provides a stable output over a wide operating range. The three independent circuit assemblies are hermetically sealed and can operate on common or separate power supplies. The advanced MEMS sensing elements are gas damped in order to provide a wide stable frequency response.

FEATURES

- ◆ Low Noise
- ◆ Three Independent Circuits
- ◆ Lower Current Consumption
- ◆ Ranges: $\pm 2g$ to $\pm 500g$
- ◆ DC Response
- ◆ High Over-Range Protection
- ◆ Temperature Compensation
- ◆ Low Transverse Sensitivity

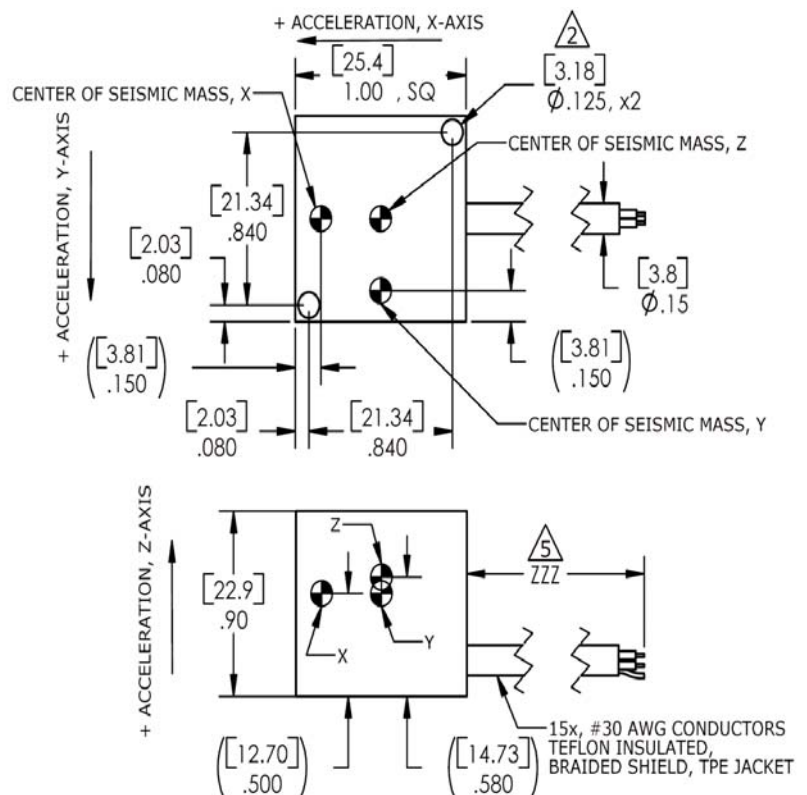
APPLICATIONS

- ◆ Transportation
- ◆ Vibration/Shock Monitoring
- ◆ Road Vehicle Testing
- ◆ Low Frequency Applications
- ◆ Modal Analyses

Vibration Sensors Technical
Support:
Tel: 949-716-5377
Fax: 949-916-5677
Email: vibration@meas-spec.com



dimensions



measurement
SPECIALTIES

Model 4630 Accelerometer

performance specifications

All values are typical at 25°C, 100Hz and 12Vdc excitation unless otherwise stated.

Measurement Specialties reserves the right to update and change these specifications without notice.

PARAMETERS

DYNAMIC

	+/-2	+/-5	+/-10	+/-20	UNITS	NOTES
Range	1000	400	200	100	mV/g	
Sensitivity	0-250	0-300	0-400	0-700	Hz	+/- 5%
Frequency Response	650	400	300	400	μV rms	
Residual Noise						
Range	+/-50	+/-100	+/-200	+/-500	UNITS	NOTES
Sensitivity	40	20	10	4	mV/g	
Frequency Response	0-1000	0-1500	0-1500	0-1500	Hz	+/- 5%
Residual Noise	500	500	500	500	μV rms	
Non-Linearity		+/-1			% FSO	Maximum
Transverse Sensitivity (Max)		+/-3			%	+/-1% Typical
Zero Acceleration Output		2.50+/-0.05			V	
Thermal Zero Shift (-20 to +80°C)		+/- .019			% FSO/°C	Maximum
Thermal Sensitivity Shift (-20 to +80°C)		+/- .019			%/°C	Maximum

ELECTRICAL

Excitation Voltage	8 to 24	Vdc	
Excitation Current	5.0	mA	Typical
Reference Voltage	2.5	Vdc	
Output Impedance	100	Ω	Maximum
Insulation Resistance (@ 50Vdc)	100	MΩ	Minimum
Ground Isolation	Isolated		

PHYSICAL

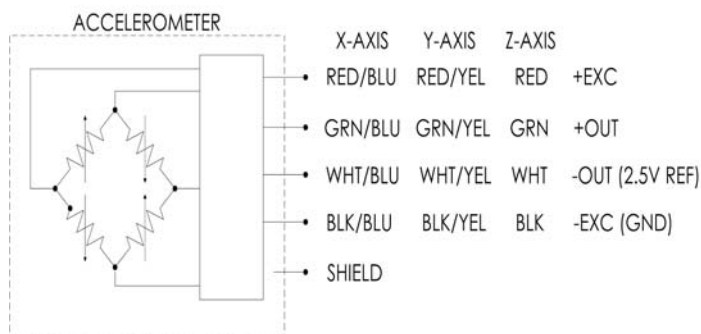
Housing	Aluminum		Hard Anodized
Weight (cable not included)	20	grams	Maximum
Mounting	2x #4 or 2x M3 Screws		6 lb-in torque

ENVIRONMENTAL

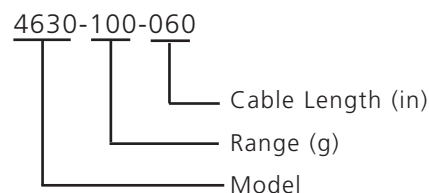
Shock Limit	10,000	g's	
Operating Temperature	-40 to +155	°C	
Humidity	Sensor assembly hermetically sealed		

Contact factory for custom temperature compensation options

electrical schematic



ordering information



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