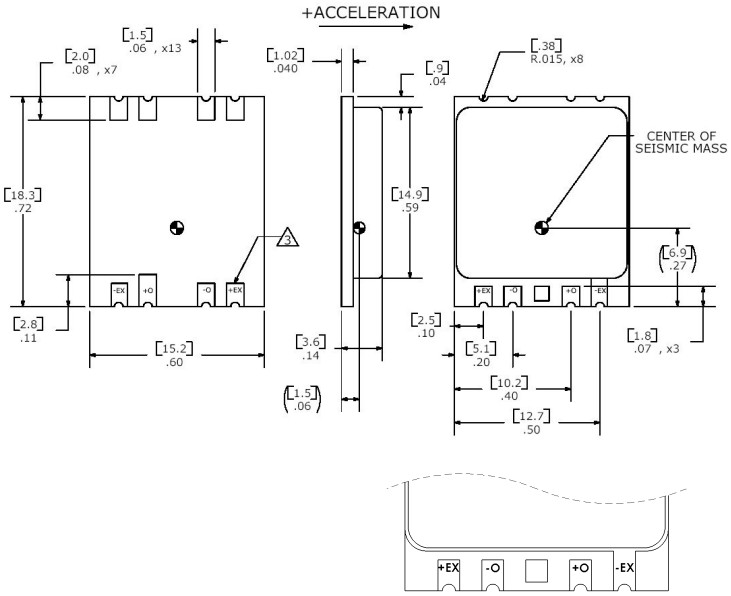
Model 4655 Accelerometer

SMT Mount Accelerometer
Silicon MEMS
Temperature Calibrated
Hermetically Sealed

The Model 4655 is a signal conditioned board mountable MEMS accelerometer. The accelerometer incorporates integral temperature compensation and a frequency response from DC to 2000Hz. The gas damped accelerometer incorporates integral over-range stops making it ideal for measurements of static and dynamic vibrations after shock impacts. The model 4655 is packaged in a true hermetically sealed envelope with a ceramic board and a metal shielding for smt or adhesive mounting.

dimensions

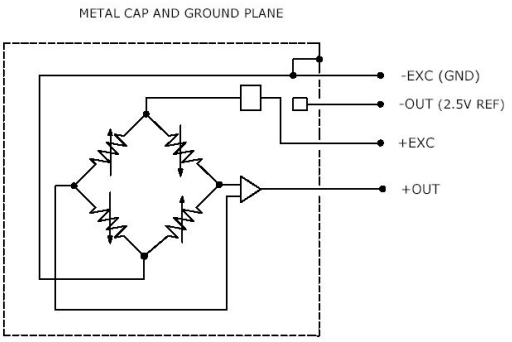


FEATURES

- Board Mountable Accelerometer
- 8 to 32Vdc Excitation Voltage
- Hermetically Sealed
- ±2g to ±200g Dynamic Ranges
- DC Response
- Advanced Temperature Compensation
- High Over-Range Protection

APPLICATIONS

- Impact Testing
- Vibration & Shock Monitoring
- Embedded Applications
- Inertial Navigation
- Low Frequency Applications



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Model 4655 Accelerometer

performance specifications

All values are typical at +24℃, 100Hz and 12Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters									
DYNAMIC									**Notes**
Range (g)	±2	±5	±10	±20	±50	±100	±200	±500	
Sensitivity (mV/g)	1000	400	200	100	40	20	10	4	
Frequency Response (Hz)	0-200	0-300	0-350	0-600	0-800	0-1300	0-1500	0-1500	±5%
Natural Frequency (Hz)	700	800	1000	1500	4000	6000	8000	10000	
Non-Linearity (%FSO)	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3	<3	<3	<1 Typical
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	
Shock Limit (g)	10000	10000	10000	10000	10000	10000	10000	10000	
ELECTRICAL									
Zero Acceleration Output (mV)	±50	±50	±50	±50	±50	±50	±50	±50	Differential
Excitation Voltage (Vdc)	8 to 32	8 to 32	8 to 32	8 to 32	8 to 32	8 to 32	8 to 32	8 to 32	
Excitation Current (mA)	<5	<5	<5	<5	<5	<5	<5	<5	
Bias Voltage (Vdc)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Output Resistance (Ω)	<100	<100	<100	<100	<100	<100	<100	<100	
Insulation Resistance (MΩ)	>100	>100	>100	>100	>100	>100	>100	>100	@100Vdc
Turn On Time (msec)	<100	<100	<100	<100	<100	<100	<100	<100	
Residual Noise (µV RMS)	500	300	300	350	400	400	400	400	Passband
Ground Isolation	Isolated from Mounting Surface								
ENVIRONMENTAL									
Thermal Zero Shift (%FSO/℃)	±0.008	±0.008	±0.008	±0.008	±0.008	±0.008	±0.008	Typical	
Thermal Sensitivity Shift (%/℃)	±0.010	±0.010	±0.010	±0.010	±0.010	±0.010	±0.010	Typical	
Operating Temperature (℃)	-55 to 125								
Compensated Temperature (℃)	-40 to 100								
Storage Temperature (℃)	-55 to 125								
PHYSICAL									
Case Material	Ceramic Base, Nickel Silver Cover								
Cable	Not applicable								
Weight (grams)	2.2								
Mounting	Not applicable								
Mounting Torque	Not applicable								
AWG	Not applicable								

Wiring color code: Not applicable

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ordering info

PART NUMBERING Model Number+Range

4655-GGG
|
|_____Range (020 is 20g)

Example: 4655-020
Model 4655, 20g

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