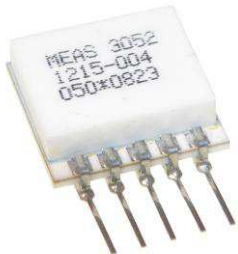


MODEL 3052A ACCELEROMETER



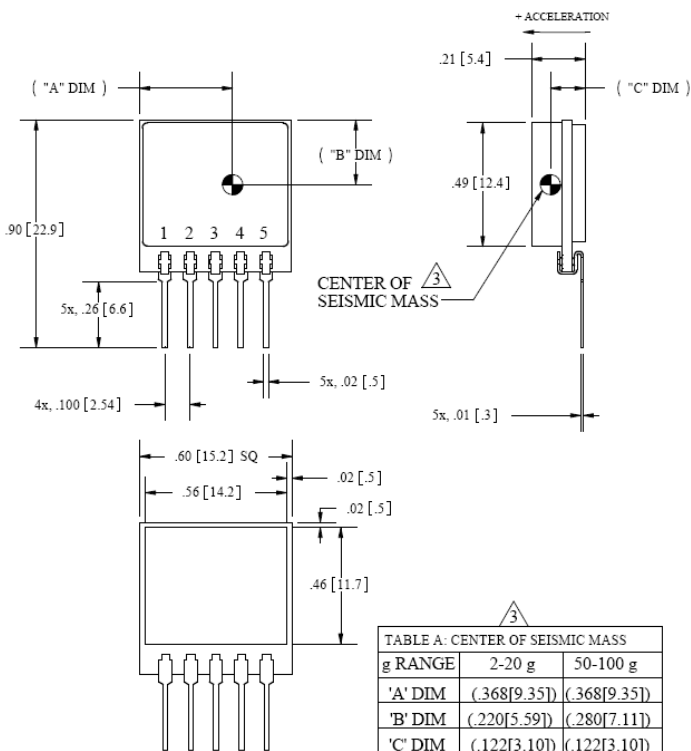
SPECIFICATIONS

- ◆ Piezoresistive MEMS
- ◆ DC Response, Gas Damped
- ◆ Circuit Board Mountable
- ◆ Integral Temp Compensation

The Model 3052A is a silicon MEMS accelerometer with integral temperature compensation. The accelerometer is packaged on a ceramic substrate with an epoxy sealed ceramic cover and is designed for adhesive mounting. The accelerometer is offered in ranges from $\pm 2g$ to $\pm 100g$ range and provides a flat frequency response to minimum 1500Hz. The silicon MEMS sensor is gas damped and incorporates over-range stops for high-g shock protection.

For a similar accelerometer designed for bolt mounting, see the model 3058A

dimensions

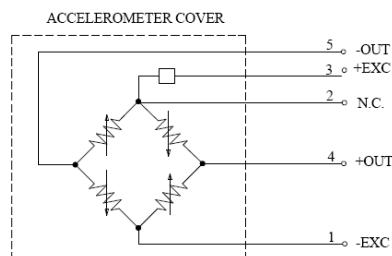


FEATURES

- ◆ Adhesive Mounted
- ◆ $\pm 1.0\%$ Non-Linearity
- ◆ 0 to $+50^{\circ}\text{C}$ Temp Compensation
- ◆ Built-in Over-range Stops
- ◆ Low Power Consumption

APPLICATIONS

- ◆ Vibration & Shock Monitoring
- ◆ Motion Control
- ◆ Impact & Shock Testing
- ◆ Transportation Measurements
- ◆ Embedded Applications
- ◆ Machinery



PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 5Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

Parameters								Notes
DYNAMIC								
Range (g)	±2	±5	±10	±20	±50	±100		
Sensitivity (mV/g) ¹	8.0-16.0	4.8-7.2	2.4-3.6	1.2-1.8	0.48-0.72	0.24-0.36		@5Vdc Excitation
Frequency Response (Hz)	0-150	0-250	0-350	0-550	0-1000	0-1300		±5%
Natural Frequency (Hz)	700	800	1000	1500	4000	6000		
Non-Linearity (%FSO)	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0		
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3		<1 Typical
Damping Ratio	0.7	0.7	0.7	0.7	0.6	0.5		
Shock Limit (g)	3000	3000	3000	3000	5000	5000		
ELECTRICAL								
Zero Acceleration Output (mV)	±2							Differential
Excitation Voltage (Vdc)	2.7 to 12							
Input Impedance (Ω)	1200-6500							
Output Impedance (Ω)	1200-6500							
Insulation Resistance (MΩ)	>100							@50Vdc
Residual Noise (µV RMS)	10							Maximum
Ground Isolation	Isolated from Mounting Surface							
ENVIRONMENTAL								
Thermal Zero Shift (%FSO/°C)	±0.060							0 to +50°C
Thermal Sensitivity Shift (%/°C)	±0.060							0 to +50°C
Operating Temperature (°C)	-40 to +125							
Compensated Temperature (°C)	0 to +50							
Storage Temperature (°C)	-40 to +125							
Humidity	Epoxy Sealed, IP61							
PHYSICAL								
Case Material	Ceramic							
Weight (grams)	3.1							
Mounting	Adhesive or solder							

¹ Output is ratiometric to excitation voltage

Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 100Hz

Optional accessories: 121 Three Channel DC Signal Conditioner Amplifier
140A Auto-Zero Inline Amplifier

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

ORDERING INFO

PART NUMBERING Model Number+Range+Electrical Connection

3052A-GGG-P

I | _____ Electrical Connection (P=pins)
I | _____ Range (010 is 10g)

Example: 3052A-010-P
Model 3052A, 10g, Pins

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Tel: 800-522-6752
Email: customercare.hmpt@te.com

EUROPE

MEAS France SAS
a TE Connectivity Company
Tel: 800-440-5100
Email : customercare.lcsb@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
Sales and Customer Service
Tel: 0400-820-6015
Email: customercare.shzn@te.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.