







# **MODEL 805M1 ACCELEROMETER**

# **SPECIFICATIONS**

- TO-5 Series Accelerometer
- 3-Wire Voltage Output
- Low-Cost, Embedded Applications
- <0.80mA Power Consumption</li>

The Model 805M1 is a miniature adhesive mount voltage output accelerometer built on a 3-pin TO-5 header. It is available in ±20g to ±500g dynamic ranges and offers a flat frequency response to 12kHz. The accelerometer features a hermetic construction in a TO-5 header configuration. The model 805M1 incorporates a stable piezo-ceramic crystal with low power electronics in a 100% shielded housing suitable for many embedded OEM applications.

The model 805M1 accelerometer is offered in two configurations; one for adhesive mounting and one for stud mounting. An isolating cover option is also included for the standard model.

# **FEATURES**

- ±20g to ±500g Range
- Wide bandwidth up to 12kHz
- TO-5 Configuration
- Hermetically Sealed
- -40°C to +100°C Operating Range
- · Case Grounded Design
- 3.0-5.5 Excitation Voltage

# **APPLICATIONS**

- Machine Monitoring
- Embedded Preventive Maintenance
- Low-Cost OEM Installation
- Permanent Structural Study
- Embedded Sensing Solution

# PERFORMANCE SPECIFICATIONS

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

Parameters						
DYNAMIC						Notes
Range (g)	±20	±50	±100	±200	±500	
Sensitivity (mV/g)	100	40	20	10	4	±10%
Frequency Response (Hz)	1-8000	1-8000	1-8000	1-8000	1-8000	±1dB
Frequency Response (Hz)	0.4-10000	0.4-10000	0.4-12000	0.4-12000	0.4-12000	±3dB
Natural Frequency (Hz)	34000	34000	34000	34000	34000	
Non-Linearity (%FSO)	±1	±1	±1	±1	±1	
Transverse Sensitivity (%)	5	5	5	5	5	
Shock Limit (g)	5000	5000	5000	5000	5000	
Residual Noise (g RMS)	0.001	0.001	0.003	0.003	0.005	Broadband 1Hz to 10kHz

### **ELECTRICAL**

 $\begin{array}{lll} \text{Bias Voltage (Vdc)} & \text{Exc Voltage / 2} \\ \text{Total Supply Current (mA)} & <0.80 \\ \text{Excitation Voltage (Vdc)}^{\,1} & 3.0 \text{ to } 5.5 \\ \text{Output Impedance (}\Omega\text{)} & <100 \\ \text{Insulation Resistance (}M\Omega\text{)} & >100 \\ \text{Full Scale Output Voltage (V)} & \pm2 \end{array}$ 

Grounding Case grounded to mounting surface

### **ENVIRONMENTAL**

Temperature Response (%)  $\pm 10$ Operating Temperature (°C) -40 to +100Storage Temperature (°C) -54 to +125

### **PHYSICAL**

Sensing Element Piezo-Ceramic Case Material Stainless Steel

Weight (grams) 5.0

Mounting Adhesive or Circuit Board (M3 Stud Mounting for -01 Option)

Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 80Hz

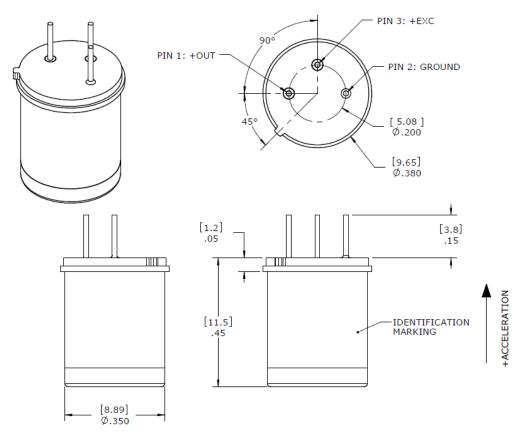
The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. TE Connectivity reserves the right to make changes without further notice to any product herein. TE Connectivity makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does TE Connectivity 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. TE Connectivity does not convey any license under its patent rights nor the rights of others.

@50Vdc

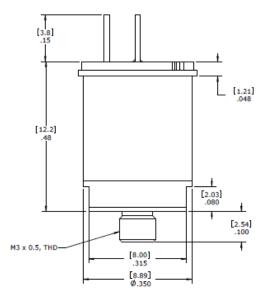
<sup>&</sup>lt;sup>1</sup> The model 805M1 can be operated with 2.8V excitation but the full-scale range will be limited.

# **DIMENSIONS**

# Standard Model 805M1



# Model 805M1 with M3 Mounting Stud Option



### **SCHEMATIC**

# + EXCITATION (PIN 3) + OUTPUT (PIN 1) GROUND (PIN2)

# **ORDERING INFORMATION**





**Isolating Cover Option** 

Examples; 805M1-0020 Model 805M1, 20g range

805M1-0200-01 Model 805M1 with M3 mounting stud, 200g range

# **NORTH AMERICA**

Measurement Specialties, Inc., a TE Connectivity Company Tel: +1-800-522-6752 customercare.hmpt@te.com

### **EUROPE**

MEAS France SAS a TE Connectivity Company Tel: +31 73 624 6999 customercare.lcsb@te.com

### ASIA

Measurement Specialties (China), Ltd., a TE Connectivity Company Tel: +86-400-820-6015 customercare.shzn@te.com

# TE.com/sensor solutions

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.

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Accelerometers category:

Click to view products by TE Connectivity manufacturer:

Other Similar products are found below:

AD22372Z-RL7 ADXL313WACPZ-RL 805M1-0050-01 MXC6655XA MMA7455LT 805M1-0200-01 810M1-0025X 832M1-0200

AIS328DQTR 832M1-0050 805-0050 AD22301 BMA253 ADXL354BEZ SCA620-EF8H1A-1 MC3413 MXC6244AU 3038-0500 ACH01-04/10 4692 ADXL372BCCZ-RL7 735T 787-500 787AM8 793-6 793L 997-M4 HV101 HV102 HV200 PC420AR-10 PC420VP-50

786A 786A-IS 787A 787A-IS HT786A HT787A PC420VP-10 AD22293Z-RL7 ADCMXL1021-1BMLZ ADIS16003CCCZ

ADIS16006CCCZ ADIS16228CMLZ ADXL700WBRWZ-RL ADXL1003BCPZ ADXL103CE-REEL ADXL203CE-REEL ADXL206HDZ

ADXL213AE