



MODEL 810M1 ACCELEROMETER

SPECIFICATIONS

- ♦ **Piezoelectric Linear Accelerometer**
- ♦ **$\pm 25g$ & $\pm 100g$ Dynamic Ranges**
- ♦ **Wide Bandwidth to 6000Hz**
- ♦ **Circuit Board Mountable**

The Model 810M1 is a low cost, board mountable accelerometer designed for general purpose vibration measurements. The accelerometer is available in $\pm 25g$ or $\pm 100g$ range and provides a flat frequency response up to $>6kHz$. Featuring stable piezo-ceramic crystals in shear mode, the accelerometer incorporates an amplified $\pm 1.25V$ output and is offered in two measurement direction options (X or Z axis).

FEATURES

- ♦ Two Measurement Directions
- ♦ 3.3 to 5.5Vdc Excitation Voltage
- ♦ Hermetically Sealed
- ♦ Piezo-Ceramic Shear Design
- ♦ -40° to $+125^{\circ}C$ Operating Range

APPLICATIONS

- ♦ Asset Monitoring
- ♦ Data Loggers
- ♦ Impact Monitoring
- ♦ Machine Health Monitoring
- ♦ System Wake-Up Switch

PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 3.3Vdc excitation unless otherwise stated. TE Connectivity reserves the right to update and change these specifications without notice.

Parameters

DYNAMIC

			Notes
Range (g)	±25	±100	
Sensitivity (mV/g)	50.0	12.5	±30%
Frequency Response (Hz)	2-6000	2-6000	±1dB
Resonant Frequency (Hz)	>30000	>30000	
Non-Linearity (%FSO)	±2	±2	
Transverse Sensitivity (%)	<8	<8	
Shock Limit (g)	2000	2000	
Residual Noise (g RMS)	0.0026	0.0032	2Hz to 10kHz
Spectral Noise, 10Hz (µg√Hz)	160	160	
Spectral Noise, 100Hz (µg√Hz)	40	40	
Spectral Noise, 1kHz (µg√Hz)	16	16	

ELECTRICAL

Bias Voltage (Vdc)	Excitation Voltage / 2		
Full Scale Output Voltage (V)	±1.25		
Total Supply Current (µA)	22		
Excitation Voltage (Vdc)	3.3 to 5.5		
Output Impedance (Ω)	<100		
Insulation Resistance (MΩ)	>100		@100Vdc
Shielding	100%		
Warm-up Time (msec)	30		

ENVIRONMENTAL

Temperature Response (%)	-20/+30 from -40°C to +125°C
Operating Temperature (°C)	-40 to +125
Storage Temperature (°C)	-40 to +125
Humidity	Hermetically Sealed

PHYSICAL

Sensing Element	Ceramic (shear mode)
Case Material	Ceramic Base, Nickel Silver Cover
Weight (grams)	3.0
Mounting	Solder

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.

DIMENSIONS

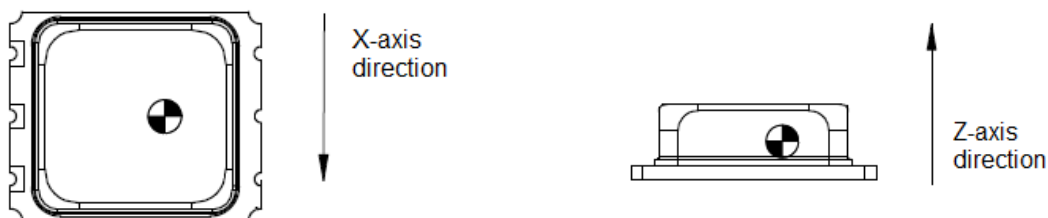


The schematic diagram illustrates the internal structure of the 74VHC14N, a hex inverter. It features a central rectangular block representing the inverter core. To the left of this block is a square symbol with an 'X' inside, representing the input buffer. The input buffer has two inputs: one connected to the main input pin (pin 1) and another connected to the output pin (pin 14). The main input pin (pin 1) is connected to the input of the inverter core. The output of the inverter core is connected to the output pin (pin 14). The inverter core also has two other pins: one connected to VCC (pin 16) and another connected to GND (pin 7). The output pin (pin 14) is also connected to GND (pin 7). The output pin (pin 14) is labeled 'OUT'. The VCC pin (pin 16) is labeled 'VCC'. The GND pin (pin 7) is labeled 'GND'. There are two additional pins labeled 'NC' (No Connection) on the right side of the diagram, which are not connected to any internal components.

ORDERING INFORMATION

810M1	GGGG	X
Range 0025=25g 0100=100g		
Measurement Direction (see figures below) X=X-axis Z=Z-axis		

Examples;
810M1-0025X
Model 810M1, 25g range, X-axis measurement



NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Tel: 800-522-6752
customercare.hmp1@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: 0400-820-6015
customercare.shzn@te.com

TE.com/sensorsolutions

MEAS France SAS and Measurement Specialties (China), Inc., are TE Connectivity companies.

TE Connectivity, TE, TE connectivity (logo) 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.

© 2017 TE Connectivity Ltd. All Rights Reserved.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru

www.lifeelectronics.ru