

Digital triaxial MEMS accelerometer and temperature sensor

883M

Wilcoxon
SENSING TECHNOLOGIES

SPECIFICATIONS

DYNAMIC

Acceleration range	±16 g, peak
Resolution	0.488 mg
Frequency response, ± 3 dB	2 Hz - 5 kHz
Resonance frequency	6.9 kHz

CALCULATED VIBRATION METRICS (X, Y, AND Z AXES)

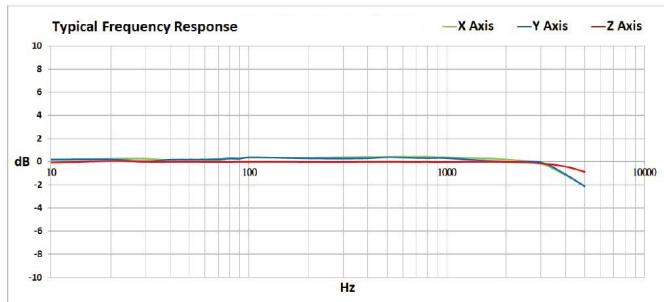
Acceleration, RMS	2 Hz - 1 kHz; 10 Hz - 5 kHz
Acceleration, peak	2 Hz - 1 kHz; 10 Hz - 5 kHz
Velocity, RMS	2 Hz - 1 kHz; 10 Hz - 1 kHz; 10 Hz - 5 kHz
Velocity, peak	2 Hz - 1 kHz; 10 Hz - 1 kHz; 10 Hz - 5 kHz
Displacement, RMS	2 Hz - 1 kHz; 10 Hz - 1 kHz
Displacement, peak	2 Hz - 1 kHz; 10 Hz - 1 kHz

OTHER OUTPUTS

Temperature	-20° to +70° C
True peak	Fs @ 13.333 kHz
Spectrum	0 Hz - 5 kHz, 6145 lines
Time wave	13,333 samples, 1 second
Other features	crest factor standard deviation

COMMUNICATION

Interface	RS485
Protocol	Modbus RTU
Recommended baud rate	9,600 or 115,200 bps
Max. baud rate	921,600 bps



Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

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Key features

- Modbus RTU communication protocol
- Digitally outputs vibration spectrum, time waveforms, and vibration characteristic values
- Frequency bands align with ISO 10816-3 and ISO 20816-3 guidelines

Kit options

- 883M: sensor and stud mount
- 883M-SMA: sensor, stud mount, screw mount adapter, and RM8-ST-J94-50 50' mating cable
- 883M-MMA: sensor, stud mount, magnet mount adapter, and RM8-ST-J94-50 50' mating cable
- 883M-FMA: sensor and stud mount, screw mount adapter, magnet mount adapter, and RM8-ST-J94-50 50' mating cable

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SPECIFICATIONS

ELECTRICAL

Power 6 - 24 VDC

LED Indicator 1 (RGB)

ENVIRONMENTAL AND MECHANICAL

Dimensions 35mm dia. x 26 mm h

Weight 75 grams

Sealing IP67

Case material: **upper** A6061 aluminum
lower 303 stainless steel

Connector 4-socket M8

Mating connector 4-pin M8

Recommended cabling 4-conductor, PVC jacket, shielded

Mounting adhesive mount via sensor flat base
screw mount adapter¹ (optional)
magnet mount adapter¹ (optional)

Operating temperature -20° to +70° C

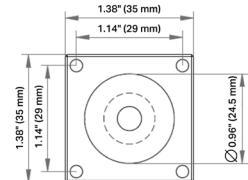
Storage temperature -20° to +80° C

Shock limit 5,000 g

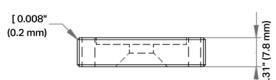
Operating humidity 5 - 95% RH

Notes: ¹ Mounting adapter allows the installer to mount the sensor in a specific orientation, as required for triaxial sensors, and provides proper cable exit placement.

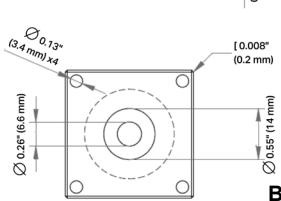
SCREW MOUNT ADAPTER



TOP VIEW

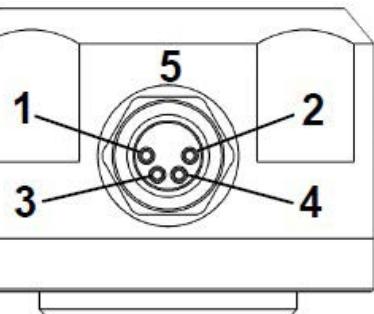
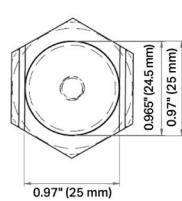
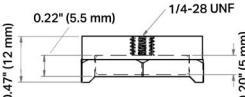
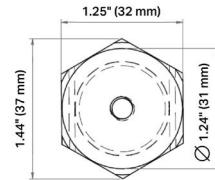


SIDE VIEW



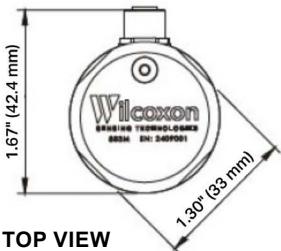
BOTTOM VIEW

MAGNET MOUNT ADAPTER

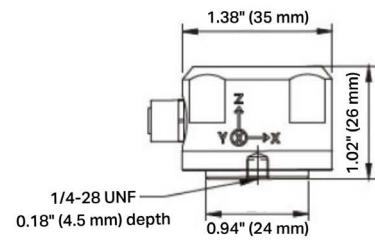


Connections

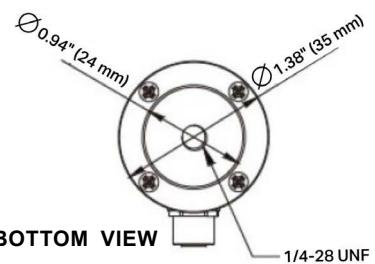
Function	Connector pin
power	1
ground	2
signal +	3
signal -	4
shield	5 (housing)



TOP VIEW



SIDE VIEW



BOTTOM VIEW

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