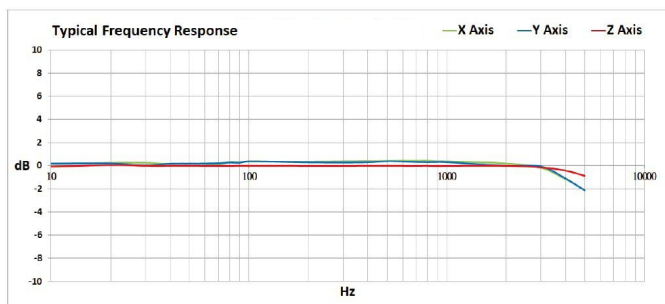


# Digital triaxial MEMS accelerometer and temperature sensor

## 883M

### 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.



### 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

# Digital triaxial MEMS accelerometer

## 883M

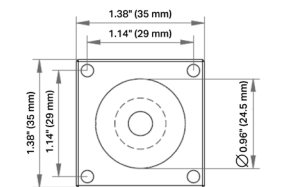
### SPECIFICATIONS

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 lower	A6061 aluminum 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 adapter <sup>1</sup> (optional) magnet mount adapter <sup>1</sup> (optional)
Operating temperature		–20° to +70° C
Storage temperature		–20° to +80° C
Shock limit		5,000 g
Operating humidity		5 - 95% RH

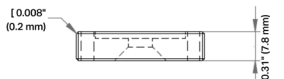
Notes: <sup>1</sup> Mounting adapter allows the installer to mount the sensor in a specific orientation, as required for triaxial sensors, and provides proper cable exit placement.

#### SCREW MOUNT ADAPTER

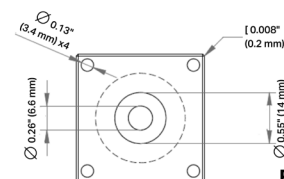
#### MAGNET MOUNT ADAPTER



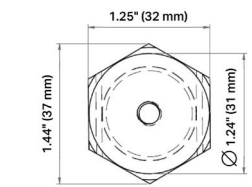
TOP VIEW



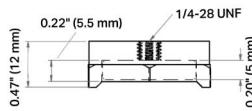
SIDE VIEW



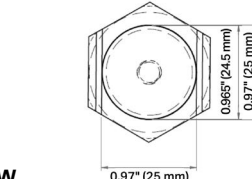
BOTTOM VIEW



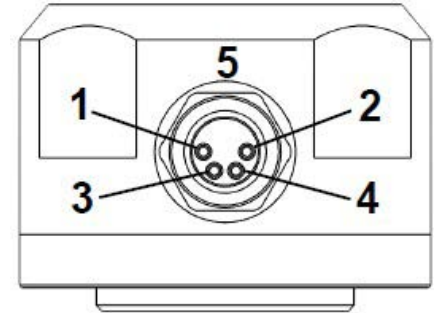
TOP VIEW



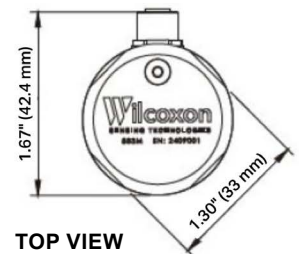
SIDE VIEW



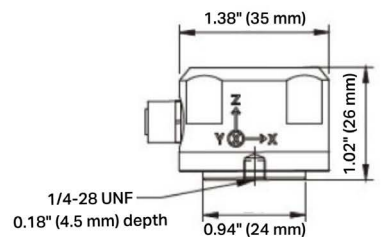
BOTTOM VIEW



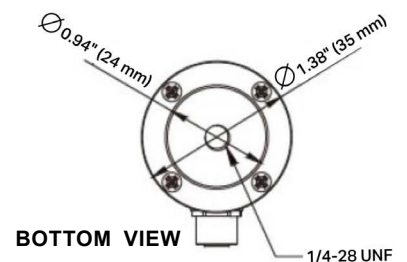
Connections	
Function	Connector pin
power	1
ground	2
signal +	3
signal -	4
shield	5 (housing)



TOP VIEW



SIDE VIEW



BOTTOM VIEW

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