



883M

Digital triaxial MEMS accelerometer and temperature sensor

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

SPECIFICATIONS

DYNAMIC

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

FREQUENCY BAND OUTPUTS (X, Y, AND Z AXES)

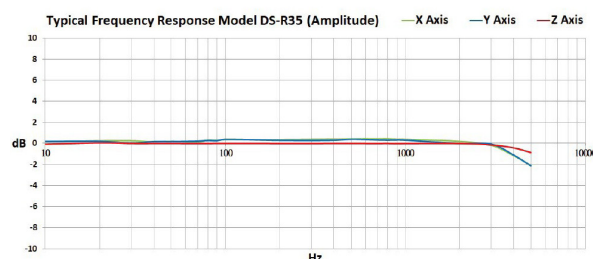
Acceleration, RMS	2 Hz - 1 kHz; 10 Hz - 5 kHz
Acceleration, peak	2 Hz - 1 kHz; 10 Hz - 5 kHz
Velocity, RMS	10 Hz - 1 kHz; 10 Hz - 5 kHz
Velocity, peak	10 Hz - 1 kHz; 10 Hz - 5 kHz
Displacement, RMS	2 Hz - 1 kHz; 10 Hz - 1 kHz
Displacement, peak	2 Hz - 1 kHz; 10 Hz - 1 kHz

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.



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

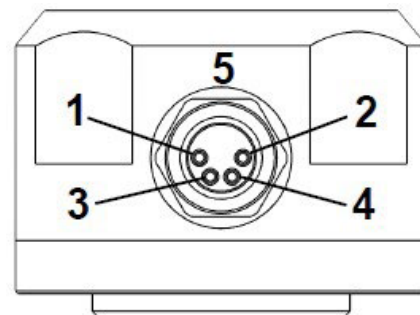
Recommended cabling 4-conductor, PVC jacket, shielded

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

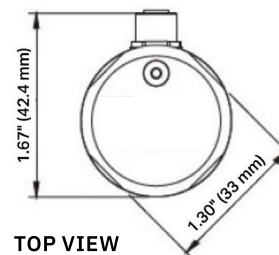
Operating temperature -20° to +70° C

Storage temperature -20° to +80° C

Operating humidity 5 - 95% RH

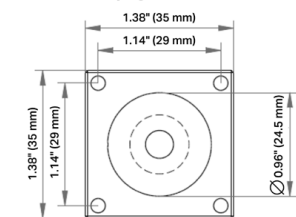


Connections	
Function	Connector pin
power	1
ground	2
signal +	3
signal -	4
shield	5 (housing)

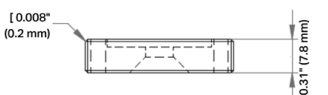


TOP VIEW

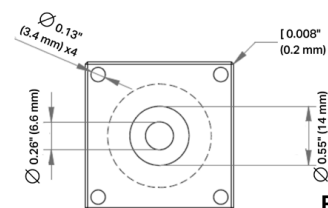
SCREW MOUNT ADAPTER



TOP VIEW

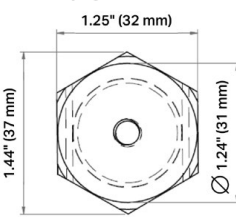


SIDE VIEW

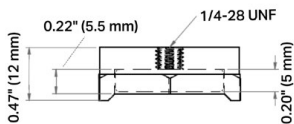


BOTTOM VIEW

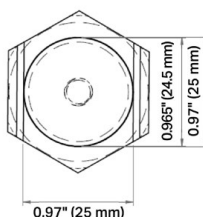
MAGNET MOUNT ADAPTER



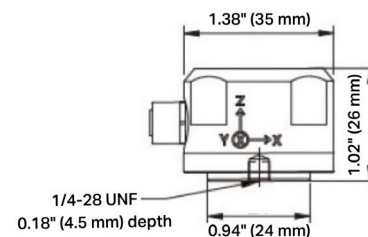
TOP VIEW



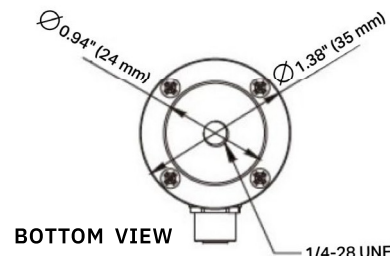
SIDE VIEW



BOTTOM VIEW



SIDE VIEW



BOTTOM VIEW

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.