

Wireless Tri-Axial Vibration and Temperature Sensor

Physical Properties

Weight	10 oz / 284 g / 0.626 lb
Enclosure Material	6061 Aluminum Alloy
Mounting	Stud (M6x1), Magnetic (bases provided), Epoxy
Dimensions	Refer to drawing
Ingress Protection	IP67

Power

Power Source	Lithium-thionyl Chloride Battery, 8500 mAh
Battery Specs	Max Rated Voltage: 3.6 V Max Rated Capacity: 3.3 Ah Rated Battery Life: 3 years ¹

Hazardous Certification

Explosion Proof Rating	ATEX/IECEX EX ia IIC T4Ga
Class	I, II, III
Division	1, 2

Wireless Connection

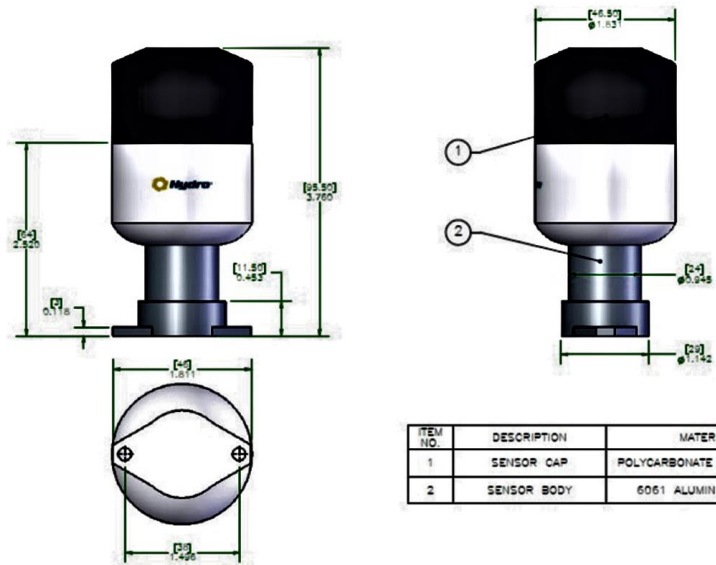
Connection Method	ZigBee 2.4 GHz IEEE 802.15.4
Transmission Distance	Interference Free Access ~1,000 ft (~300 m)
Telecommunication Compliance	FCC

Transmission Rates²

Data Type	Collection Interval
Time Waveform	Programmable with standard rate of 30 minutes
Overall Sampling Value	Programmable with standard rate of 5 minutes

¹ The estimated battery life corresponds to the default collection and transmission settings.

² Transmission rates may vary depending on the number of sensors connected to the gateway.



Measurements

Vibration	Velocity, Acceleration, and Displacement
Axes	Horizontal, Vertical, Axial
Linearity Error	1%
Vibration Range	Piezoelectric: ±50 g (Peak) MEMS: ±16 g (Peak)
Frequency Range	Piezoelectric: 2 - 20,000 Hz (±3 dB) MEMS: 2 - 1,000 Hz (±3 dB)
Temperature	Range: -40 to 257 °F (-40 to 125 °C) Accuracy: ±1.8 °F (±1 °C)

Sampling Configuration

Frequency Min. (Hz)	0.1, 2, 10, 500
Frequency Max. (Hz)	10, 20, 50, 100, 200, 500, 1000, 2000, 5000, 10000, 15000, 20000
Wavelengths	1k, 2k, 4k, 8k, 16k, 32k, 64k, 128k, 256k, 512k, 1024k, 2048k
Spectral Resolutions	Customizable based on frequency range and wavelength selected