LoRaWAN Piezo-Electric 10kHz Vibration Sensor

Smart Agriculture, Smart Building, Smart City, Smart Energy, Smart Facility, Smart Factory, Smart Farm, Smart Retail, Smart Utilities

SKU: WSLRW-V1A

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Safe Zone

Hazardous Zones

WSLRW-V1A is a cost-effective, LoRaWAN accelerometer single-axis vibration sensor designed for condition monitoring and preventive maintenance applications. The Piezo-electric accelerometer is available in ranges ±25g or 50g and features a flat frequency response up to >10kHz. Besides that, it can also measure the temperature at the mounting point. It is the best choice to replace the traditional 4-20mA output Vibration Sensor. Typical Applications: Machine Health Monitoring, Predictive Maintenance Installations, Vibration Monitoring, Impact & Shock Monitoring, Bearing monitoring, ...

Applications

Condition Based Monitoring, Machine Health Monitoring, Safety Monitoring, Vibration Monitoring

Notes For Applications

LoRaWAN communication

LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market

10-Year battery

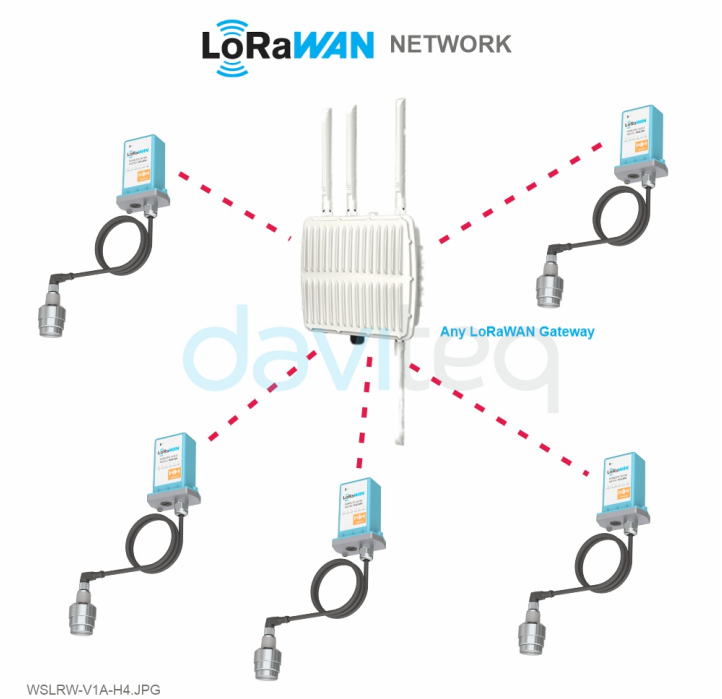
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology allow the sensor can last up to 10 years with 2 x AA batteries 1.5VDC

10kHz Bandwidth

Wide bandwidth up to 10,000 Hz

High Performance Piezo-electric sensor

Hermetically Sealed, Piezo-Ceramic Crystal, Shear Mode accelerometer sensor is designed and qualified for machine health monitoring and has superior Resolution, Dynamic Range and Bandwidth to MEMS devices



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DAVITEQ TECHNOLOGIES INC

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Created date: Dec-21-2022 | Updated date: Aug-16-2025

Specification

	(* Note: All below values are typical at +24℃, 80Hz)
Sensor technology	Hermetically Sealed, Piezo-Ceramic Crystal, Shear Mode
8-Parameter Measurement	Acceleration Peak, Velocity RMS & Peak, Displacement RMS & Peak, Frequency, Temperature, and Crest Factor
Acceleration Range & Shock Limit (g)	±25, 10000
Acceleration resolution	6.1mg
Velocity range and resolution	0~50mm/s, 0.1mm/s
Displacement range and resolution	±5000µm, 1µm
Frequency Response and Resonant (Hz)	2~10000, > 30000
Frequency resolution	2~10000Hz, 1Hz
Non-Linearity, Transverse Sensitivity	±2% FSO, < 5%
Temperature measuring and operating	-40~85℃, with accuracy: ±0.5 and resolution: 0.125
Sensor Material, rating and mounting	304SUS, IP67, M6 Screw
Connector	M12-M 5-pin (Coding A) with 2m cable, wired to LoRaWAN node
COMMUNICATION	
SF Factors	SF7~SF12
Antenna	Internal Antenna 2.0dbi
Battery	02 x AA size 1.5, battery not included
RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Protocol	LoRaWAN® Class A V1.0.3
Data sending modes	Interval time and when alarm occurred
RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Working temperature	-40~60℃ (using Energizer® Lithium Ultimate AA battery)
Dimensions & Net-weight	H106xW73xD42, 190g
Housing	Aluminum+Polycarbonate, IP67
Mounting	Wall mount bracket

WIRELESS LoRaWAN VIBRATION SENSOR INSTALLED ON MOTOR/FAN

WSLRW-V1A-H2.JPG

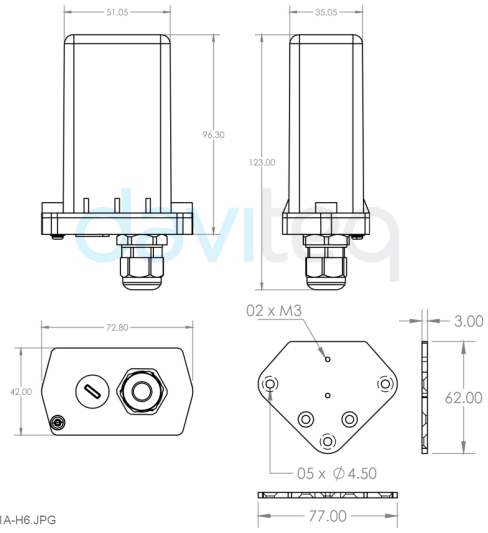
WIRELESS LoRaWAN VIBRATION SENSOR INSTALLED ON BEARING

WSLRW-V1A-H3.JPG

VIBRATION SENSOR WITH M6 SCREW

WSLRW-V1A-H5.JPG

DIMENSION DRAWING OF WIRELESS NODE
(Unit: mm)



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RECOMMENDED BATTERIES

E91 AA Alkaline battery

-18 .. + 60 oC working temperature

10-year shelf life

3000 mAH Capacity

Price: 1X

L91 AA Lithium battery

-40 .. + 60 oC working temperature

20-year shelf life

3500 mAH Capacity

Price: 3.5X

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WHAT'S IN THE PACKAGE?

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRW-V1A-025	LoRaWAN PIEZO-ELECTRIC 10KHZ VIBRATION SENSOR, ±25G, INTERNAL ANTENNA, TYPE AA BATTERY 1.5VDC, IP67, 860-930MHz

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