

# Sigfox Piezo-Electric 10KHz Vibration Sensor WSSFC-V1A

SKU: WSSFC-V1A

Doc No: WSSFC-V1A-DS-EN-10

## Introduction

WSSFC-V1A is a cost effective, Sigfox accelerometer single-axis vibration sensor designed for condition monitoring and preventive maintenance applications. The piezo-electric accelerometer is available in ranges  $\pm 25g$  or  $50g$  and features a flat frequency response up to  $>10kHz$ . Its accelerometer feature a stable piezo-ceramic crystal in shear mode with low power electronics, sealed in a fully hermetic package. The Piezo Electric technology incorporated in the WSSCF-V1A accelerometer has a proven track record for offering the reliable and long-term stable output required for condition monitoring applications. The accelerometer is designed and qualified for machine health monitoring and has superior Resolution, Dynamic Range and Bandwidth to MEMS devices. Beside that it can also measure the temperature at mounting point. With Ultra-low power design and smart firmware allow the complete Wireless and Sensor package run on 2 x AA battery up to 10 years. It can support all regions of Sigfox network in over the World, RC1, RC2, RC3, RC4, RC5, RC6, RC7.

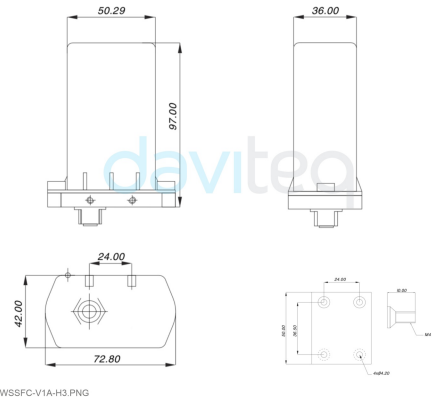
- 10KHz Bandwidth vibration sensor;
- Sigfox Ready;
- 10-year battery;
- Plug & Play.

## Compatible DULP Sensors

- Machine Health Monitoring;
- Predictive Maintenance Installations;
- Vibration Monitoring;
- Impact & Shock Monitoring;
- Bearing monitoring.....



DIMENSION DRAWING OF WIRELESS SENSOR  
(Unit: mm)



## Specification

| SENSOR SPECIFICATION    |  |
|-------------------------|--|
| Sensor technology       | Hermetically Sealed, Piezo-Ceramic Crystal, Shear Mode   |
| 8-Parameter Measurement | Acceleration RMS & Peak<br>Velocity RMS & Peak<br>Displacement RMS & Peak<br>Frequency & Temperature |
| Acceleration Range      | $\pm 25$ or $50$   |
| Shock Limit (g)         | 10,000   |

|   |   |
|---|---|
| Frequency Response and Resonant Frequency (Hz)                        | 2-10000, >30000   |
| Non-Linearity, Transverse Sensitivity                                 | ±2%FSO, < 5%  |
| Temperature measuring and operating range, accuracy & resolution (°C) | -40.. +85, +/- 0.5, 0.125   |
| Sensor Material, housing protection and mounting                      | 304SUS, IP67, M6 Screw  |
| <i>*Notes</i>   | <i>All above values are typical at +24°C, 80Hz</i>  |
| Connector   | M12-M 5-pin, Coding A   |
| Cable   | 2m cable, wired to Sigfox node  |
| <b>SIGFOX SPECIFICATION</b>   |   |
| Sigfox zones  | select RC2-RC3-RC4-RC5 or RC1-RC6-RC7   |
| Antenna   | Internal Antenna 2 dbi  |
| Configuration   | via offline USB cable (PC software is supplied at free) and via Downlink  |
| Battery   | 02 x AA Type 1.5VDC, working time up to 10 years (depends on configuration)<br>** 7 years working with 30 minutes update, RC4, 1 x transmit |
| RF Module complies to   | CE, FCC, ARIB   |
| Working temperature   | -40oC..+60oC (using Energizer Lithium Ultimate AA battery)  |
| Dimensions  | H106xW73xD42  |
| Net-weight  | 190 grams   |
| Housing   | Aluminum+Polycarbonate, IP67  |
| Mounting  | Wall mount bracket  |

## Ordering Code

| Item code       | Descriptions   |
|-----------------|--|
| WSSFC-V1A-9-025 | SIGFOX PIEZO-ELECTRIC 10KHZ VIBRATION SENSOR, +/- 25G, INTERNAL ANTENNA, TYPE AA BATTERY 1.5VDC, IP67, RC2-RC3-RC4-RC5 ZONES |
| WSSFC-V1A-8-025 | SIGFOX PIEZO-ELECTRIC 10KHZ VIBRATION SENSOR, +/- 25G, INTERNAL ANTENNA, TYPE AA BATTERY 1.5VDC, IP67, RC1-RC6-RC7 ZONES     |

🔗 Link for full datasheet: <https://filerun.daviteq.com/wl/?id=rf1Rddc6KQo4TjqgIUcs4FgZaiTCcII7>

🔗 Link for manual:

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