

Smart Valve Positioning Sensor



Smart Factory, Smart Energy

SKU: SVP

SMART VALVE POSITIONING SENSOR SVP



SVP-H1.PNG



Safe Zone

Hazardous Zones

Smart Valve Positioning Sensor is a ruggedized valve position sensor integrating multiple independent sensors to reliably detect and track the valve position and the number of turns. The data is sent to the internet through LoRaWAN/ Sigfox/ NB-IoT. Additional vibration and temperature sensors complete the functionality. The device is conceived to work in demanding industrial environments and is fully certified. The battery is exchangeable

Applications

Valve Positioning Monitoring, Vibration Monitoring

Notes For Applications

- LoRaWAN class A compliant device
- Internal sensors for 3-axis acceleration, tilt, rotation, magnetic field, vibrations, temperature
- Easy to install with multiple mounting options
- Robust IP69K industrial housing

DETECT AND TRACK THE VALVE POSITION AND THE NUMBER OF TURNS



SVP-H2.PNG

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Created date: Jun-15-2023

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Specification

SENSOR SPECIFICATION	
Accelerometer	
Range	±2g, ±4g, ±8g, ±16g
Resolution	12-bit, 4mG
Accuracy (typ.)	±40mG
Magnetic sensor	
Detection threshold	Max. ±4.8 mT
Magnetic response	Omnipolar
Reset activation (typ.)	After 7.5 sec
Vibration	
Range	Up to 1kHz
GPS	
Receiver	Quectel L86 with patch antenna
Sensitivity	-167dBm @ Tracking, -149dBm @ Acquisition
GNSS	GPS & GLONASS L1 band
Horizontal Position Accuracy	2.5m CEP
Operating conditions	
Air Temperature	-40~70 °C
Valve Temperature	-40~90°C
Humidity	0~95% RH
Device power supply	
Battery type	SAFT M 20 EX SV
Expected battery lifetime	Up to 2 years depending on device configuration
Certifications	
CE	RED 2014/53/EU
UKCA	Radio Equipment Regulations 2017
Ex	Intrinsic safety "I", "IS" for GAS zone 1
ATEX/ IECEx	II 2G Ex ib IIC T4 Gb
RoHS	Compliant
Mechanical specifications	
Weight	350 g
Dimensions	114mm × 60mm × 45mm
COMMUNICATION	
Radio/ Wireless	868MHz/ 915MHz

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IDENTIFY ABNORMAL VIBRATIONS OR NOISES



SVP-H3.PNG

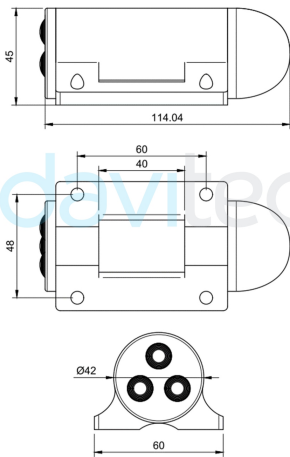
INDUSTRY APPLICATIONS



SVP-H4.PNG

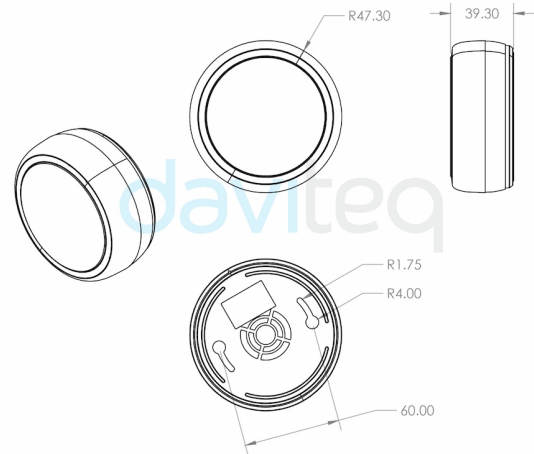
- Oil and Gas
- Petrochemicals and Chemicals
- Power Generation
- Water and Wastewater Treatment
- Pharmaceutical and Biotechnology
- Food and Beverage

DIMENSION DRAWINGS
(Unit: mm)



SVP-H5.PNG

DIMENSION DRAWING OF WIRELESS SENSOR
(Unit: mm)



WSLRW-I-CO2-H6.JPG

RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

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

WSLRW-I-CO2-H7.JPG

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Ordering Information

ITEM CODE	DESCRIPTIONS
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