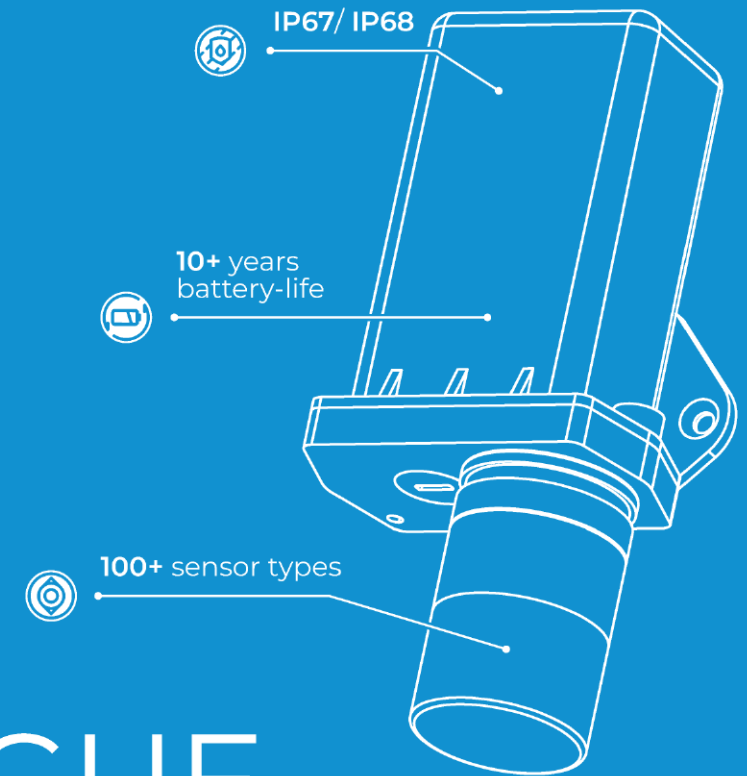




SENSORS CATALOGUE

Expertise Meets Innovation

CONNECTIVITY



More catalogues



HELLO THE WORLD

daviteq
Expertise Meets Innovation.

Established in 2004, Daviteq is a leading company specializing in Process Automation. In 2009, recognizing the importance of innovation, Daviteq established the Research and Development Department to enhance its product and solution offerings to better meet customer needs. This initiative led to the introduction of the Daviteq sensor line and the IoT Platform Globiots.

iot.daviteq.com

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« **STAND BY
YOUR SIDES**

Daviteq's product range includes cutting-edge solutions. These products seamlessly integrate with the Globiots platform, providing customers with a comprehensive solution that encompasses both hardware and software. Notably, Daviteq's products have gained widespread acclaim in Vietnam and have successfully penetrated international markets with stringent technical requirements, earning positive feedback.

 **Smart Energy**

 **Smart Factory**

 **Smart Transport**

 **Smart Facility**

 **Smart Building**

 **Smart City**

 **Smart Health**

 **Smart Agri**



**FIT WITH YOUR
CONNECTIVITIES** »

 Sub-1GHz

 LoRaWAN
compatible

 NB-IoT

 sigfox

 Satellite IoT

 LTE-M



TEMPERATURE



AIR QUALITY



GAS DETECTOR



WIND SPEED & DIRECTION



RAIN GAUGE



FLOW METER



HUMIDITY



MOISTURE



LIGHT



PRESSURE



PH



PULSE COUNTER



0-20mA DC



DIGITAL INPUT



ANALOG INPUT



AC CURRENT



RELAYS



0-3V DC



VALVE CONTROL



SOLAR RADIATION



OIL TANK LEVEL



OIL MOISTURE



SMOKE DETECTOR



MOTION DETECTOR



PEOPLE COUNTER



LOAD CELL READER



ULTRASONIC



LIQUID LEVEL



SOUND



ROTATING DETECTOR



TILT



VIBRATION



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LoRaWAN

LoRaWAN is a Low Power Wide Area Network (LPWAN) protocol designed for wireless communication between IoT devices. It is based on LoRa technology, which is a proprietary modulation technique used for long-range wireless communication.

The LoRa Alliance® is a non-profit association of companies that promote the development and adoption of LoRaWAN. It was founded in 2015 and has since grown to include over 500 member companies from around the world.

LoRaWAN has many applications in the IoT industry, including Smart City, Agriculture, Logistics, and Industrial Automation. Its long-range capabilities and low power consumption make it ideal for remote monitoring and control of devices.

LoRaWAN

compatible

LoRaWAN

LoRaWAN Advanced Triaxial Vibration Sensor	LRWEX-V3A	LoRaWAN Oxygen Sensor	WSLRW-O2
LoRaWAN Optical Oxygen Gas Sensor	WSLRW-LMO2	LoRaWAN Process Pressure Sensor	WSLRW-PPS
LoRaWAN NDIR C3H8 and CH4 Gas Sensor	WSLRW-NDIR	LoRaWAN PT100 Temperature Transmitter	WSLRW-PT100
LoRaWAN Smart Solenoid Valve Battery Operated	WSLRW-ISV	LoRaWAN Sound Level Sensor	WSLRW-SL
LoRaWAN Surface Velocity Sensor	WSLRW-SVS	LoRaWAN Soil Moisture Sensor	WSLRW-SMT
LoRaWAN Ultrasonic Level Sensor with Remote Cable	WSLRW-RULA	LoRaWAN Thermocouple Temperature Transmitter	WSLRW-TCK
LoRaWAN Precision Tilt Angle Sensor for Structural Health ...	WSLRW-SHMAG	LoRaWAN Ultrasonic Level Sensor for Trash bin ULA	WSLRW-ULA
LoRaWAN RS485 IEC 62056-21 Meter Reader	WSLRW-IEC485	LoRaWAN Ultrasonic Level Sensor for Trash bin ULB	WSLRW-ULB
LoRaWAN Latching Solenoid Valve Controller	WSLRW-LSV	LoRaWAN Ultrasonic Liquid Level Sensor	WSLRW-ULC
LoRaWAN Ex d D-battery-powered Electro-chemical Gas Se...	WSLRWEX-G4	LoRaWAN Piezo-Electric 10kHz Vibration Sensor	WSLRW-V1A
LoRaWAN Node with Latching Relay Output	WSLRW-LRO	LoRaWAN Heavy Duty Digital Input Node	WSLRWAL-DI
LoRaWAN G4 Toxic Gas Sensor with Siren for Industrial Saf...	WSLRW-GCBG4	LoRaWAN Ex d Digital Input Node	WSLRWEX-DI
LoRaWAN Compact Node with RS485 Modbus Master Port	WSLRW-C-RS485	LoRaWAN Ex d NDIR Flammable Gas Sensor	WSLRWEX-GHC
LoRaWAN Ex d RS485 Master Node	WSLRWEX-RS485	LoRaWAN Ex d Process Pressure Sensor	WSLRWEX-PPS
LoRaWAN Fuel Flow Meter	WSLRW-DFM	Modular Ambient Air Quality Monitor	MAQM
LoRaWAN Oil Moisture Sensor	WSLRW-OMS	Smart Indoor Air Quality Monitor	SIAQ
LoRaWAN Ex d Approved Pt100 Sensor	WSLRWEX-PT100	Smart Vortex Flow Meter	SVF128
LoRaWAN Relay Output Node	WSLRW-RL	LoRaWAN Tilt Sensor	WSLRW-AG
LoRaWAN NDIR Flammable Gas Sensor with Siren for Indu...	WSLRW-GCB	LoRaWAN Humidity & Temperature Sensor	WSLRW-ATH
LoRaWAN Ex d Analog Output Node	WSLRWEX-AO	LoRaWAN Precision Fuel Level Sensor	WSLRW-CAP10
LoRaWAN pH Transmitter	WSLRW-PH100	LoRaWAN Carbon Dioxide Sensor	WSLRW-CO2
LoRaWAN Miniature Radar Level Sensor	WSLRW-RLC	LoRaWAN Gas Detecting Sensor	WSLRW-G4
LoRaWAN Heavy Duty Thermocouple Temperature Transmi...	WSLRWAL-TC	LoRaWAN Toilet Odor Sensor	WSLRW-G4F-NH3
LoRaWAN Oval Gear PD Flow Meter	WSLRWAL-TF	LoRaWAN Lidar People Counter	WSLRW-LPC
LoRaWAN Radar Level Sensor	WSLRW-RDW	Smart Battery Pack for Outdoor Installation	SBP
LoRaWAN Ex d NDIR Acetylene Gas Sensor	WSLRWEX-GHC03	Panel mount Industrial IoT HMI	PHMI
LoRaWAN Heavy-duty Tilt Sensor	WSLRWAL-AG	PineX Outdoor LoRaWAN Gateway	PINEX
LoRaWAN Ex d Tilt Sensor	WSLRWEX-AG	LoRaWAN Exd Design Gateway	GWLRWEX
LoRaWAN Ex d Electro-chemical Oxygen Sensor	WSLRWEX-O2	LoRaWAN Indoor Gateway	GWIND
LoRaWAN AC Current Sensor	WSLRW-AC	LoRaWAN Outdoor Gateway	GWLRW
LoRaWAN Node with RS485 Modbus Master Port	WSLRW-MB485		
LoRaWAN Mini Control Valve	WSLRW-BV		
LoRaWAN Ex d Ambient Humidity & Temperature Sensor	WSLRWEX-ATH		
LoRaWAN Tower Vibration Sensor	WSLRW-TVS		
LoRaWAN Ex d Acoustic Sensor	WSLRWEX-ACS		
LoRaWAN Indoor Carbon Dioxide Sensor	WSLRW-I-CO2		
LoRaWAN Ex d Electro-chemical Gas Sensor	WSLRWEX-G		
LoRaWAN Ex d PID Gas Sensor	WSLRWEX-PID		
LoRaWAN Industrial Ambient Temperature Sensor	WSLRW-S-ATE		
LoRaWAN Ambient Light Sensor	WSLRW-AL		
LoRaWAN Digital Input Node	WSLRW-DI		
LoRaWAN Laser Level Sensor	WSLRW-LSL		
LoRaWAN Current Input Node	WSLRW-MA		

LORAWAN ADVANCED TRIAXIAL VIBRATION SENSOR
 LRWEX-V3A


LoRaWAN Advanced Triaxial Vibration Sensor

Applications

Vibration Monitoring, Condition Monitoring, Predictive Maintenance

LoRaWAN
compatible



002

Ultra-low Noise MEMS 11-KHz Vibration Sensor

Multiple outputs with FFT values

ATEX IECEx Zone 1 and Zone 2

10-year Battery

SPECIFICATION

Sensor Type	Ultra-low noise 3-axis digital MEMS vibration sensor
Measurement axes	X, Y, Z
Frequency Bandwidth	Select 11KHz or 6KHz, +/- 3dB
Acceleration range	+/- 100G or 50G for 11KHz version, 16G for 6 KHz version
Sampling rate	26 .. 48 kHz
Resolution	16 .. 20 bit
Sensitivity	0.2 mg/LSB for 11KHz version 0.488 mg/LSB for 6KHz version
Integrated noise, 0–11 kHz for 11KHz version	~3.15 mg RMS for all axes
Integrated noise, 0–1 kHz for 11KHz version	~0.95 mg RMS for all axes

PRODUCT PAGE


LORAWAN OPTICAL OXYGEN GAS SENSOR
 WSLRW-LMO2

WSLRW-LMO2



LoRaWAN Optical Oxygen Gas Sensor

Applications

Ambient Air Quality Monitor, Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring

LoRaWAN
compatible



002

LoRaWAN communication

5-10 years battery

Longer lifetime, lower cost of ownership

Reliable readings in real-world environments

SPECIFICATION

PERFORMANCE SPECIFICATIONS		SF Factor	SF7~SF12
Measuring principle	Luminescence quenching by oxygen	Antenna	Internal Antenna 2.0 dbi
Oxygen measuring range	0 – 25%	Battery	02 x AA size 1.5VDC, battery not included
Response time	T90: < 30 s (typical)	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Accuracy	O ₂ %: 1.1%, ppO ₂ : < 2% FS, Temperature: indication only, Pressure: ± 5 mbar	Protocol	LoRaWAN, class A
Resolution	O ₂ %: 0.01%, ppO ₂ : 0.1 mbar, Temperature: 0.1 °C, Pressure: 1 mbar	Data sending modes	Interval time and when alarm occurred
ENVIRONMENT SPECIFICATION		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Operating temperature	-30 to +60 °C	Vietnam Type Approval	TBA soon
Storage temperature	-30 to +60 °C	Working temperature	-40~60°C (with AA L91 Energizer®)

PRODUCT PAGE



LORAWAN NDIR GAS SENSOR
 WSLRW-NDIR

**LoRaWAN NDIR C3H8
and CH4 Gas Sensor**
Applications

Indoor Air Quality Monitor, Gas Analyzing,
Warehouse Monitoring, Gas Leakage
Detection


LoRaWAN communication
5-10 years battery
High Accuracy & Stable Measurement
Indoor and outdoor applications
SPECIFICATION

Type of measuring gas	Select CH ₄ or C ₃ H ₈ with range when ordering
Measurement technology	High performance Non-Dispersive Infrared (NDIR) sensor
Measuring range	CH ₄ 0-500 ppm/0-1000 ppm/0-10000 ppm, C ₃ H ₈ 0-500 ppm
Warm-up time	≤ 120
Response time (T90)	< 30s (CH ₄ sensors) ,≤ 45 (C ₃ H ₈ sensors)
Measurement variation	for CH ₄ it is ±0.1% vol. or ±5% of reading (whichever is greater) in the 20~25°C temperature range and for C ₃ H ₈ it is ±0.05% vol. or ±5% of reading (whichever is greater) in the 20~25°C
Temperature Humidity Operating pressure	-40~60°C/ 0~98% RH, non-condensing/ 80kPa~120kPa
SF Factors	SF7~SF12
Antenna	Internal Antenna 2.0 dbi

[PRODUCT PAGE](#)


WSLRW-ISV

LORAWAN SMART SOLENOID VALVE BATTERY OPERATED
 WSLRW-ISV

**LoRaWAN Smart
Solenoid Valve Battery
Operated**
Applications

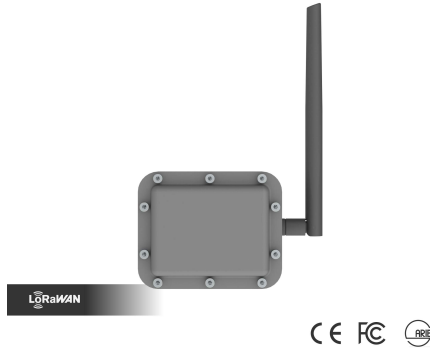
Utility, Smart Irrigation, Water Distribution

VALVE WITH
INTEGRATED CONTROLLER

Battery Operated for 5-10 years!
Multi-function controls
High quality Valve Body
Support Multi-region LoRaWAN Networks
SPECIFICATION

Valve size	DN20, DN25, DN40, DN50, DN65, DN80, DN100	SF Factors	SF7~SF12 for EU868, RU864, KR920, AS923 and SF7 for US915, AU915, and IN865
Materials	Reinforced Nylon (Body), AISI 300 & 400 series (Solenoid trim), NR/EPDM (Diaphragm), NBR Seals	Antenna	Internal Antenna 2 dbi
Pressure rating	0.3 - 10 bargs	Power Supply	Primary batteries 01 x AA size 3.6VDC for LoRaWAN and 9V for valve control (battery not included). For version with RS485 port: 2 x AA 3.6V batteries
Working temperature	Fluid: 5°C to 50°C (no freezing) Ambient: -10°C to 50°C	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Process connection	BSPT, NPT, Flange (4" only)	Protocol	LoRaWAN Class A or Class C V1.0.3 (Class A is default, Class is not recommended for battery operated version)
Manual Operator	Optional	Data sending modes	interval time, alarm and manually triggering by magnetic key
Control mode	Scheduled Control, Instant Remote Control, Power-on Control, Fall-back Control	Alarm function	Yes
Optional Communication Port	1 x RS485 modbus RTU master	Remote control via downlink	Class A or Class C mode
		CE & FCC	Yes

[PRODUCT PAGE](#)


LORAWAN SURFACE VELOCITY SENSOR
 WSLRW-SVS


LoRaWAN Surface Velocity Sensor

Applications

Flood Monitoring, River Flow Monitoring



Reliable Measurement

Fully Autonomous

Global LoRaWAN

IP67

SPECIFICATION

Sensor Technology	Doppler 24GHz Radar Technology	SF factors	SF7~SF12
Measurement range	0.1 - 20 m/s at max distance 30m, bidirectional	Antenna	External Antenna 2.0dbi
Resolution	0.01m/s	Battery	6xRechargeable Battery Li-ion 18650, batteries not included
Accuracy	+/- 0.01m/s	Solar Panel	included 5W solar panel
Sensor sampling rate	configurable from 1 min up to 60 min	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Alarm setting	setting the alarm threshold for calculated value	Protocol	LoRaWAN® Class A
		Data sending modes	Interval time and when alarm occurred
		Configuration	via downlink or offline cable (software is free)
		Working temperature	-20~70°C (battery cannot be charged in < 0°C)

PRODUCT PAGE


LORAWAN ULTRASONIC LEVEL SENSOR
 WITH REMOTE CABLE
 WSLRW-RULA


WSLRW-RULA

LoRaWAN Ultrasonic Level Sensor with Remote Cable

Applications

Water & Wastewater Management, Industrial Manufacturing, Agriculture & Irrigation, Food & Beverage and Residential & Smart Homes.



LoRaWAN communication

5-10 years battery

High Accuracy & Stable

IP68 Outdoor

SPECIFICATION

Sensor	Ultrasonic sensor 40kHz	SF Factors	SF7~SF12
Measurement range	3~450cm	Antenna	Internal Antenna 2.0 dbi
Accuracy	±(1cm + 0.5% reading)	Battery	02 x AA size 1.5, battery not included
Resolutions	1mm OR 1‰	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Alarm setting	setting the alarm threshold for calculated value	Protocol	LoRaWAN, class A
Working temperature/humidity	-15~60°C/ 0~99% RH (non-condensing)	Data sending modes	Interval time and when alarm occurred
Storage temperature/humidity	-25~80°C/ 0~99% RH (non-condensing)	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Transducer material	Ceramic	Electronics working temperature	-40~60°C (using L91 Energizer® battery)
		Housing	H154xW68xD43, Polycarbonate, IP68

PRODUCT PAGE



LORAWAN PRECISION TILT ANGLE SENSOR FOR STRUCTURAL HEALTH MONITORING WSLRW-SHMAG

WSLRW-SHMAG

LoRaWAN Precision Tilt Angle Sensor for Structural Health Monitoring

Applications

Bridge structural monitoring, High-rise building sway detection, Dam and embankment deformation monitoring, Foundation settlement tracking, Tunnel and underground structure monitoring, Industri...



Dual-axis precision tilt measurement

Designed for harsh outdoor SHM deployments

10+ Year battery life

Zero-offset calibration at Field

SPECIFICATION

Measuring Range	±30° dual-axis, tilt measurement	SF Factors	SF7~SF12
Resolution (Intrinsic)	≤ 0.0001° after internal filtering	Antenna	External Antenna 2 dbi
Short-Term Repeatability (Intrinsic Sensor Performance)	Single Sample (RMS): ±0.0021° at ODR=10Hz, no averaging	Power Supply	Single cell LISOC12 battery size D (not included), 10+ years typical lifetime
	Averaging 10 samples: ±0.00066° in 1 sec window	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
	Averaging 50 samples: ±0.00030° in 5 sec window	Protocol	LoRaWAN Class A V1.0.3
	Averaging 100 samples: ±0.00021° in 10 sec window	Data sending modes	interval time, alarm and manually triggering by magnetic key
Long-Term Zero Stability	±0.15° over multi-year operation	Alarm function	Yes
Temperature Coefficient	±0.0043°/°C thermal-induced zero drift	Configuration	via downlink
Operating Temperature	-40°C to +85°C	RF Module	complies to ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)

PRODUCT PAGE



LORAWAN RS485 IEC 62056-21 METER READER WSLRW-IEC485

WSLRW-IEC485

LoRaWAN RS485 IEC 62056-21 Meter Reader

Applications

Electric Meter Reading, Gas Meter Reading, Water Meter Reading



LoRaWAN Compliance

Connection to any RS485 IEC 62056-21 slave device

10-Year battery

IP68

SPECIFICATION

Input port	1 x RS485 master port	SF Factors	SF7~SF12
Connector	Cable with 2 wires for RS485+ and RS485-	Antenna	Internal Antenna 2.0 dbi
Protocol	IEC 62056-21	Power supply	02 x AA size 1.5VDC primary battery (battery not included) OR 7-48 VDC external power OR 6-9 VDC external power with rechargeable batteries
Fault protected RS-485 bus pins	up to ±40V	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
HBM ESD protection on RS-485 bus pins	±15kV	Protocol	LoRaWAN, class A
Extened common mode range	±15V (larger than required for RS-485)	Data sending modes	Interval time, alarm, magnetic key trigger, and downlink trigger
High transient over voltage tolerance	±60V	Certification	CE, FCC
Full fail-safe RS-485 receivers	open, short, terminated	Working temperature	-40~60°C (with AA L91 Energizer®)
		Dimensions	H180xW50xD40

PRODUCT PAGE



LORAWAN LATCHING SOLENOID VALVE CONTROLLER
 WSLRW-LSV


LoRaWAN Latching Solenoid Valve Controller

Applications

Smart Irrigation, Water Supply System,
Water Level Control, Oil Level Control

LoRaWAN communication

5-Year battery

Multi-control modes

Easy integration to almost solenoid valves

SPECIFICATION

Cable	2 wires for control pulse of a solenoid valve	SF Factors	SF7~SF12 for EU868, RU864, KR920, AS923 and SF7 for US915, AU915, and IN865
Control function	Pulse control (Positive pulse for open control and negative pulse for close control)	Antenna	undefined
Pulse width	Configurable, default of 40ms for HUNTER valve and RAIN BIRD valve	Power Supply	Primary batteries 01 x AA size 3.6VDC for LoRaWAN and 9V for valve control (battery not included)
Control mode	Schedule Control, Instant Control, Power-on Control, Fall-back Control	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
		Protocol	LoRaWAN Class A or Class C V1.0.3
		Data sending modes	interval time, alarm and manually triggering by magnetic key
		Alarm function	Yes
		Remote control via downlink	Class A or Class C mode

PRODUCT PAGE


LORAWAN EX D ELECTRO-CHEMICAL GAS SENSOR
 WSLRWEX-G4


WSLRWEX-G4

LoRaWAN Ex d D-battery-powered Electro-chemical Gas Sensor

Applications

Gas Leakage Detection, Ambient Air Quality Monitor, Indoor Air Quality Monitor

LoRaWAN communication

High performance sensor

5-10 years battery life

Ex d Zones 1-2-21-22

SPECIFICATION

Measurement technology	Daviteq High-performance Ultra-low power Electro-chemical Gas Sensor	SF Factors	SF7~SF12
Select Gas Sensor type	CO, NO, NO ₂ , H ₂ S, NH ₃ , O ₃ , O ₂ , SO ₂ , Cl ₂ , HCHO etc.	Antenna	External Antenna 2.0dbi
Gas sensor type and specification	List of compatible gas sensors and specification	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
		Protocol	LoRaWAN® Class A
		Data sending modes	Interval time, an alarm occurred and manually triggered by a magnetic key. Recommend max 24 messages per day
		Configuration	Via Downlink or offline USB cable (PC software is supplied for free)
		Battery	01 type D 3.6V LiSOCl ₂ battery (recommended SAFT LS33600)
		Housing	Aluminum alloy, powder coated, IP66, Wall mount installation
		Certified Ex d	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and SIRA 10ATEX1358X

PRODUCT PAGE



LORAWAN NODE WITH LATCHING RELAY OUTPUT WSLRW-LRO

WSLRW-LRO

LoRaWAN Node with Latching Relay Output

Applications

Smart Irrigation, Water Supply System, Water Level Control, Oil Level Control, Home Automation, Industrial Automation, Energy Distribution, Urban Infrastructure



LoRaWAN communication

Multi-control modes

Control schedules to prevent wrong control

Cost-effectiveness of wireless control

SPECIFICATION

Number of relay channel	1 channel/2 channel/4 channel	SF Factors	SF7~SF12
Contact rating	Electro-mechanical relays, SPST (NO) 250 VAC@8A (resistive load) 24 VDC@5A (resistive load), 10,000,000 operations min. (at 18,000 operations/h)	Antenna	Internal Antenna 2 dbi
Relay contact connection	PG9 with 90 cm length, 2x 1.0 mm2 cable,	Power supply	2 x AA 1.5 VDC primary battery
Control functions	On/Off based on control schedule, powerup, fall back mode	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
		Protocol	LoRaWAN Class A or Class C (default) V1.0.3
		Data sending modes	cycle, alarm and manually triggering by magnetic key
		Alarm function	Yes
		Remote control via schedule downlink	Class A
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)

PRODUCT PAGE



LORAWAN G4 TOXIC GAS SENSOR WITH SIREN WSLRW-GCB

WSLRW-GCBG4

LoRaWAN G4 Toxic Gas Sensor with Siren for Industrial Safety

Applications

Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring, Gas Leakage Detection



LoRaWAN communication

5-10 years battery

High Accuracy & Stable measurement

Local alarm

SPECIFICATION

Type of measuring gas	Choose 1 of CO, CL ₂ , H ₂ S, H ₂ , NH ₃ gases
Measurement technology	High performance Electro-Chemical sensor
Measuring range	CO 0-500ppm, H ₂ S 0-100ppm, H ₂ 0-1000ppm, NH ₃ 0-100ppm, CL ₂ 0-20 ppm
Resolution	0.1ppm for CO, H ₂ S, NH ₃ , H ₂ and 0.01ppm for CL ₂
Reading stability	For CO, CL₂, H₂S, H₂, NH₃, refer Daviteq's Electro-Chemical gas sensor link :
Sensor working temperature	-20~60°C
Sensor Working humidity	15-90% RH, non-condensing
Operating pressure	80kPa to 120kPa
Local functions	Alarm sound and alarm acknowledgement

PRODUCT PAGE



LORAWAN COMPACT RS485 MODBUS MASTER NODE
 WSLRW-C-RS485

WSLRW-C-RS485


**LoRaWAN Compact
Node with RS485
Modbus Master Port**
Applications

Electric Meter Reading, Gas Meter Reading,
Water Meter Reading, Production Monitoring,
Facility Monitoring

LoRaWAN Compliance**Large data in uplink payload****Multi-uplink sending modes****Instant uplink sending based on trigger event****SPECIFICATION**

Input port	1 x RS485 master port	SF Factors	SF7~SF12
Cable length	2m, shielded cable with marking A, B, PWR+, and PWR- (GND) wires	Antenna	Internal/External Antenna 2.0 dbi
Protocol	Modbus RTU	Power	External power supply, 7 -48 VDC
Fault protected RS-485 bus pins	up to ±40V	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
HBM ESD protection on RS-485 bus pins	±15kV	Protocol	LoRaWAN, class A and class C (default)
Extended common mode range	±15V (larger than required for RS-485)	Data sending modes	Interval time, alarm, magnetic key trigger, and downlink trigger
High transient over voltage tolerance	±60V	Certification	CE, FCC
Full fail-safe RS-485 receivers	open, short, terminated	Working temperature	-40~60°C
		Dimensions	H140xW40xD40

PRODUCT PAGE



WSLRWEX-RS485


**LoRaWAN Ex d RS485
Master Node**
Applications

Utility Monitoring, Energy Monitoring,
Process Monitoring, Facility Monitoring

LoRaWAN Communication**Support various Fieldbus Protocols****10-Year battery****Ex d Zones 1-2-21-22****SPECIFICATION**

Input	1 x RS485 Master port	SF Factors	SF7~SF12
Protocol	Select Modbus RTU, Modbus ASCII, DLMS Cosem, Mbus etc. (Contact us before ordering)	Antenna	External antenna
Fault protected RS-485 bus pins	up to ±40V	Power Supply	C type Battery 3.6V or 12-24VDC, max 40mA
HBM ESD protection on RS-485 bus pins	±15kV	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Extended common mode range	±15V (larger than required for RS-485)	Protocol	LoRaWAN Class A/C V1.0.3
High transient over voltage tolerance	±60V	Data sending modes	interval time, alarm and manually triggering by magnetic key
Full fail-safe RS-485 receivers	open, short, terminated	Housing	Cast aluminum, IP66
Wiring Conduit	1/2" NPT-F (does not include Exd approved cable gland)	Ex Certification	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X
		Hazardous Protection Marking	ATEX II 2G Ex db IIC T4 Gb and ATEX II 2D Ex tb IIIC T135°C Db

PRODUCT PAGE



LORAWAN FUEL FLOW METER

WSLRW-DFM



LoRaWAN Fuel Flow Meter

Applications

Energy Monitoring, Fuel Monitoring, Process Monitoring, Smart Irrigation, Vehicle Tracking



LoRaWAN communication

Design for harsh environment

Various fluid type monitoring

Multi-parameter monitoring

SPECIFICATION

FLOW METER		SF Factors	SF7~SF12
Measurement fluids	diesel fuel, heating oil, motor fuel, other types of liquid fuels with kinematic viscosity from 1.5 to 6 mm2/s	Antenna	Internal Antenna 2.0 dbi
		Power supply	External power supply 10-48 VDC, avg 41 mA and max 66 mA @12 VDC
Measurement Range (L/h)	10-100, 20-250, 40-500	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Measurement error	+/- 1%	Protocol	LoRaWAN, class A and class C
Max pressure, MPa	2.5	Data sending modes	Interval time, magnetic key and alarm
Nominal pressure, MPa	0.2	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Kinematic viscosity, min/max, mm2/s	1.5/6.0	Working temperature	-40~80°C for flow meter and -40~60°C for LoRaWAN node
Solid particles size in liquid, mm	<=0.015	Dimensions and Net-weight	H110xW73xD42, 250g (LoRaWAN Device Node) and H100xW180xD85 for 250 L/h flow meter

PRODUCT PAGE



LoRaWAN Oil Moisture Sensor

WSLRW-OMS



LoRaWAN Oil Moisture Sensor

[CE](#) [FCC](#)

Applications

Oil Quality Monitor

LoRaWAN communication

5-10 years battery

High Accuracy & Stable

Wide applications

SPECIFICATION

Measuring Technology	High-sensitive water content measuring technique	SF Factors	SF7~SF12
Moisture content	0-1%	Antenna	Internal Antenna 2.0 dbi
Accuracy	0.02%	Battery	02 x AA size 1.5VDC, battery not included
Resolution	0.001%		860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Temperature measurement	-40~120°C	RF Frequency and Power	
Accuracy	±0.5°C max	Protocol	LoRaWAN, class A
Resolution	0.1°C	Data sending modes	Interval time and when alarm occurred
Process connection	G1/2" BSP	Configuration	via Downlink or Offline cable (software is free)
Wetted Materials	304SS/316SS/NBR	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Working temperature	-40~60°C (with AA L91 Energizer®)

PRODUCT PAGE



LORAWAN EX D PT100 SENSOR
 WSLRWEX-PT100

WSLRWEX-PT100

**LoRaWAN Ex d
Approved Pt100 Sensor**
[ATEX](#) [IECEX](#)
Applications

Temperature Monitoring, Process Monitoring



LoRaWAN communication

High Accuracy Pt100 Sensor

5-10 years Battery life

Ex d Zones 1-2-21-22

SPECIFICATION

Measurement technology	Ultra-low-power Pt100 measurement	SF Factors	SF7~SF12
Integrated Sensor	4-wire Class B or Class A	Antenna	External Antenna 2.0dbi
Measurement Range	-200 .. + 593°C	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Process connection	1/2"NPT male as standard, others as request	Protocol	LoRaWAN® Class A
Sensor material	316SST	Data sending modes	interval time, an alarm occurred and manually triggered by a magnetic key. Recommend max 24 messages per day
Sensor diameter	6mm	Configuration	via Downlink or offline USB cable (PC software is supplied for free)
Sensor length	200mm as standard	Battery	01 type D 3.6V LiSOCl ₂ battery (recommended SAFT LS33600)
Accessories	External mounting clamp, thermowells	Equipment housing	Aluminum alloy, powder coated, IP66, Wall mount installation
		Certified Ex d	FTZU 03 ATEX 0207U, TÜV CY 18 ATEX 0206158 X and IECEx FTZU 12.0017U, IECEx MSC 19.0001X

PRODUCT PAGE


LORAWAN RELAY OUTPUT NODE
 WSLRW-RL

WSLRW-RL

**LoRaWAN Relay Output
Node**
Applications

Smart Irrigation, Water Supply System, Water Level Control, Oil Level Control, Home Automation, Industrial Automation, Energy Distribution, Urban Infrastructure



LoRaWAN communication

Remote Control via Class A or Class C (default)

Control schedules to prevent wrong control

Cost-effectiveness of wireless control

SPECIFICATION

Number of relay channel	1 channel/2 channel/4 channel	SF Factors	SF7~SF12
Contact rating	Electro-mechanical relays, SPST (NO) 250 VAC@8A (resistive load) 24 VDC@5A (resistive load), 10,000,000 operations min. (at 18,000 operations/h)	Antenna	Internal Antenna 2 dbi
Max power consumption	1.5 W	Power supply	External power supply 7-48 VDC
Power supply connection	PG9 with 90 cm length, 2x 23 AWG cable	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Relay contact connection	PG9 with 90 cm length, 2x 1.0 mm2 cable,	Protocol	LoRaWAN Class A or Class C (default) V1.0.3
Control functions	On/Off based on control schedule	Data sending modes	cycle, alarm and manually triggering by magnetic key
		Alarm function	Yes
		Remote control via schedule downlink	Class A or Class C mode
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)

PRODUCT PAGE



LoRaWAN GAS SENSOR WITH SIREN
WSLRW-GCB

WSLRW-GCB

LoRaWAN



LoRaWAN NDIR Flammable Gas Sensor with Siren for Industrial Safety

Applications

Indoor Air Quality Monitor, Gas Analyzing,
Warehouse Monitoring, Gas Leakage
Detection

WSLRW-GCB-H1.JPG

LoRaWAN communication

5-10 years battery

High Accuracy & Stable Measurement

Local alarm

SPECIFICATION

Type of measuring gas	Choose 1 of CH ₄ , C ₃ H ₈ gases
Measurement technology	High performance Non-Dispersive Infrared (NDIR) sensor
Measuring range	CH ₄ 0-100% LEL, C ₃ H ₈ 0-100% LEL
Resolution	0.1%
Reading stability	For C3H8 and CH4, refer Daviteq's NDIR gas sensor link.
Sensor working temperature	-20~60°C
Sensor Working humidity	15-90% RH, non-condensing
Operating pressure	80kPa to 120kPa
Local functions	Alarm sound and alarm acknowledgement

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Expertise Meets Innovation.

PRODUCT PAGE



WSLRWEX-AO

LoRaWAN



LoRaWAN Ex d Analog Output Node

Applications

Facility Monitoring, Energy Monitoring,
Process Monitoring

LoRaWAN Communication

Direct receiving data from other end device

Ex d Zones 1-2-21-22

SPECIFICATION

Output	4-20mA active	SF Factors	SF7~SF12
Resolution	10 bit DAC	Antenna	External antenna
Linearity	±0.05%	Power Supply	12-24VDC, max 40mA
Wiring Conduit	1/2" NPT (does not include cable gland)	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
		Protocol	LoRaWAN Class C V1.0.3 or Private-LoRa Mode
		Data sending modes	interval time, alarm and manually triggering by magnetic key
		Housing	Cast aluminum, IP66
		Ex Certification	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X
		Hazardous Protection Marking	ATEX II 2G Ex db IIC T4 Gb and ATEX II 2D Ex tb IIIC T135°C Db

PRODUCT PAGE



daviteq
Expertise Meets Innovation.

LORAWAN PH TRANSMITTER
 WSLRW-PH100

WSLRW-PH100



LoRaWAN pH Transmitter

Applications

Water Quality Monitoring, Process Water Monitoring, Waste Water Quality Monitoring



LoRaWAN communication

10-Year battery

Pre-calibrated

Temperature Compensation

SPECIFICATION

pH Sensor Input	pH sensor	SF Factors	SF7~SF12
pH Measuring range	pH 0~14	Antenna	Internal Antenna 2.0 dbi
Resolution of pH	0.1	Battery	02 x AA size 1.5, battery not included
Accuracy of pH	±0.1		860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Temperature Sensor Input	PT100, PT1000, Thermistor	RF Frequency and Power	
Temperature measuring range	0~100°C	Protocol	LoRaWAN, class A
Temperature resolution	0.1°C	Data sending modes	Interval time, magnetic trigger and alarm
Working temperature	-40~60°C	Certification	CE, FCC marks
pH Connector	BNC	Working temperature	-15~60°C (using L91 Energizer® battery)
		Dimensions	H180xW90xD50mm

[PRODUCT PAGE](#)

LORAWAN MINIATURE RADAR LEVEL SENSOR
 WSLRW-RLC

WSLRW-RLC



LoRaWAN Miniature Radar Level Sensor

Applications

Level Monitoring, Process Monitoring, Flood Monitoring, Safety Monitoring, Smart Irrigation, Infrastructure Monitoring



LoRaWAN communication

High Accuracy & Stable

10-Year Battery

IP67 Outdoor

SPECIFICATION

Sensor Technology	Ultra-low powered 60GHz Radar Technology	SF factors	SF7~SF12
Measurement range	0.2~18m	Antenna	Internal Antenna 2.0dbi
Resolution	±1.0mm	Battery	02 x AA size 1.5VDC, battery not included
Accuracy	±10 mm		860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Working process temperature	-40~85°C	RF Frequency and Power	
Working process pressure	vacuum to 1 barg	Protocol	LoRaWAN® Class A
Sensor sampling rate	configurable from 1 min up to 60 min	Data sending modes	Interval time and when alarm occurred
Alarm setting	setting the alarm threshold for calculated value	Configuration	via downlink or offline cable (software is free)
		Certification	CE and FCC
		Working temperature	-15~60°C (with AA L91 Energizer®)

[PRODUCT PAGE](#)


HEAVY-DUTY LoRaWAN THERMOCOUPLE TRANSMITTER
WSLRWAL-TC

WSLRWAL-TC



WSLRWAL-TC-H1.JPG

LoRaWAN Heavy Duty Thermocouple Temperature Transmitter

Applications

Temperature Monitoring, Process Monitoring, Safety Monitoring

LoRaWAN communication

10-Year battery

Pre-calibrated

Heavy-duty design

SPECIFICATION

Input	Thermocouple Temperature Sensor Type B, Type E, Type J, Type K, Type N, Type R, Type S, Type T	SF Factors	SF7~SF12
Accuracy	±0.55°C in ambient temperature range -20~100°C ±1.05°C in ambient temperature range -40~125°C **Not included error of Thermocouples	Antenna	External antenna
Resolution	0.1°C	Power Supply	Primary batteries 01 x C size 3.6VDC (battery not included)
Sensor port connector	Internal Connectors via PG9 Cable Gland	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
		Protocol	LoRaWAN Class A V1.0.3
		Data sending modes	interval time, alarm and manually triggering by magnetic key
		Housing	Cast aluminum, IP66
		Ambient working temperature	-40~85°C (use with SAFT LS26500)
		Size Net weight	H190xW100xD75/700g (excluding antenna)

PRODUCT PAGE

LoRaWAN PD FLOW METER
WSLRWAL-TF

WSLRWAL-TF



WSLRWAL-TF-H1.JPG

LoRaWAN Oval Gear PD Flow Meter

Applications

Energy Monitoring, Facility Monitoring, Utility Monitoring, Process Monitoring, Flow Monitoring

High Accuracy

For Low and High Viscosity

No Straight pipe run required

LoRaWAN Connectivity

SPECIFICATION

Measuring technology	Oval gear Positive Displacement measurement method
Measuring range	0.0005~150 m³/h
Sizes	1/8"~4"
Linearity	±1.0%, 0.5%, 0.2% of measured value
Repeatability	±0.03% of measured value
Working temperature range	-20~120°C
Body material	Stainless steel or Aluminum
Working pressure	68 barg max
Connection	Threads, Flange

PRODUCT PAGE



LoRaWAN RADAR LEVEL SENSOR FOR HYDROLOGICAL APPLICATIONS WSLRW-RDW

WSLRW-RDW

LoRaWAN



WSLRW-RDW-H1.JPG

LoRaWAN Radar Level Sensor

Applications

Level Monitoring, Process Monitoring, Flood Monitoring, Safety Monitoring, Smart Irrigation, Infrastructure Monitoring

LoRaWAN communication

Maintenance free

Powered by Solar

Long life design

SPECIFICATION

SENSOR		SF Factor	SF7~SF12
Technology	Pulse radar	Antenna	External Antenna 2.0 dBi
Frequency	26GHz~±250MHz, PULSE radar emission pulse time <3ns	Power	Solar Panel 18V/9W with Rechargeable batteries x 4 battery cell Li-on 3200mAh, 3.7 V
Range of level measuring	0.40~30m/ 0.60~70m	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Resolution	1 mm	Protocol	LoRaWAN, class A
Level Measuring Accuracy	±5mm for 30m range/ ±10mm for 70m range	Data sending modes	Interval time or when alarm occurred or magnetic key touch
Beam Width	6°~18° (with antenna)	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Dielectric constant range	2.5~100, Medium viscosity <1000cp	Operating temperature of device	-20~50°C (limited by Batteries)
Process Temperature	-40~100°C/ -40~320°C (Distribution pipe flange)	Housing/ Protection	Aluminum & PC plastic

PRODUCT PAGE



LoRaWAN Ex APPROVED FLAMMABLE GAS SENSOR WSLRWEX-GHC03

WSLRWEX-GHC03

LoRaWAN



WSLRWEX-GHC-H1.JPG

LoRaWAN Ex d NDIR Acetylene Gas Sensor

Applications

Gas Leakage Detection, Ambient Air Quality Monitor, Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring

LoRaWAN communication

Durable Sensor with 10 year life span

Built-in high-accuracy sensor

Ex d Zones 1-2-21-22

SPECIFICATION

Measurement technology	Daviteq High-performance and Ultra-low power NDIR sensor, 10 years sensor life span.	SF factors	SF7~SF12
Measuring range	0~100% flammable gas LEL, equivalent to 0~2.5% vol. (C ₂ H ₂).	Antenna	2 dBi external antenna N-type
Resolution Response time (T90)	0.1% LEL/ <40 seconds	RF power and frequency	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Maximum variation of zero from -20~+55°C	±30 ppm/°C	Protocol	LoRaWAN® Class A, V1.0.3
Maximum deviation from linearity	±0.1% vol	Data sending mode	cyclically, or when an alarm occurs or activated by a magnetic key. Suggest up to 48 messages per day.
Long-term zero drift/month	±500 ppm	RF module compliant	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (USA), ARIB STD-T108 (Japan)
Temperature Humidity Operating pressure	-20~60°C/ 0~95% RH, non-condensing/ 70~130kPa	Device certification	CE or FCC on demand
		Configuration	via Local LCD, or Downlink or via USB cable (PC software provided free of charge)
		Power supply	12~35VDC, max 200mA by external DC supply or Ex approved Solar Power Skid (as below ordering information)

PRODUCT PAGE



HEAVY-DUTY LoRaWAN TILT SENSOR
WSLRWAL-AG

WSLRWEX-AG-H1.JPG

WSLRWAL-AG

LoRaWAN Heavy-duty
Tilt Sensor

Applications

Facility Monitoring, Flood Monitoring,
Infrastructure Monitoring, Level Monitoring,
Machine Health Monitoring, Safety
Monitoring, Tilt Monitoring

LoRaWAN Communication

10-Year battery

High Precision Tilt Measurement

Heavy-duty design

SPECIFICATION

Tilt Sensor	Built-in advanced accelerometer to deliver tilt angle measurement of XYZ for AG-01 version, XY for AG-03 version	SF Factors	SF7~SF12
Tilt Measurement range	±90° for AG-01 version ±30° for AG-03 version	Antenna	External antenna
Tilt Resolution	±0.01° for AG-01 version ±0.001° for AG-03 version	Power Supply	Primary batteries 01 x C size 3.6VDC (battery not included) or Solar Panel with Rechargeable batteries 1 x C size (not included)
Tilt Repeatability	±0.075° for AG-01 version ±0.010° for AG-03 version	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Tilt Temperature Drift	±0.2° per 10°C for AG-01 version (when installation X~0° and Y~0°)	Protocol	LoRaWAN Class A V1.0.3
Sensor sampling rate	1Hz max (recommend for Solar powered version)	Data sending modes	interval time, alarm and manually triggering by magnetic key
		Alarm function	for X-axis and Y-axis only
		Housing	Cast aluminum, IP66
		Ambient working temperature	-40~85°C (use with SAFT LS26500)

PRODUCT PAGE

LORAWAN EX D TILT SENSOR
WSLRWEX-AG

WSLRWEX-AG

LoRaWAN Ex d Tilt
Sensor[ATEX](#) [IECEX](#)

Applications

Facility Monitoring, Flood Monitoring,
Infrastructure Monitoring, Level Monitoring,
Machine Health Monitoring, Safety
Monitoring, Tilt Monitoring

LoRaWAN Communication

10-Year battery

High Precision Tilt Measurement

Ex d Zones 1-2-21-22

SPECIFICATION

Tilt Sensor	Built-in advanced accelerometer to deliver tilt angle measurement of XYZ for AG-01 version, XY for AG-03 version	SF Factors	SF7~SF12
Tilt Measurement range	±90° for AG-01 version ±30° for AG-03 version	Antenna	External antenna
Tilt Resolution	±0.01° for AG-01 version ±0.001° for AG-03 version	Power Supply	Primary batteries 01 x D size 3.6VDC (battery not included) or Solar Panel with Rechargeable batteries 1 x D size (not included)
Tilt Repeatability	±0.075° for AG-01 version ±0.010° for AG-03 version	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Tilt Temperature Drift	±0.2° per 10°C for AG-01 version (when installation X~0° and Y~0°)	Protocol	LoRaWAN Class A V1.0.3
Sensor sampling rate	1Hz max (recommend for Solar powered version)	Data sending modes	interval time, alarm and manually triggering by magnetic key
		Alarm function	for X-axis and Y-axis only
		Housing	Cast aluminum, IP66
		Ex Certification	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X

PRODUCT PAGE



LoRaWAN Ex d OXYGEN SENSOR
WSLRWEX-G-O2

WSLRWEX-O2

LoRaWAN



WSLRWEX-O2-H1.JPG

LoRaWAN Ex d Electro-chemical Oxygen Sensor

[ATEX](#) [IECEX](#)

Applications

Ambient Air Quality Monitor, Indoor Air Quality Monitor

LoRaWAN communication

High Performance Sensor

5-10 years Battery life

Ex d Zones 1-2-21-22

SPECIFICATION

Measurement technology	Daviteq High-performance Ultra-low power Electro-chemical Gas Sensor	SF Factors	SF7~SF12
Gas sensor type and specification	Oxygen, 0-30%, in High Humidity, 4% drift over 3 years	Antenna	External Antenna 2.0dbi
		RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
		Protocol	LoRaWAN® Class A
		Data sending modes	interval time, an alarm occurred and manually triggered by a magnetic key. Recommend max 24 messages per day
		Configuration	via Downlink or offline USB cable (PC software is supplied for free)
		Battery	01 type D 3.6V LiSOCl ₂ battery (recommended SAFT LS33600)
		Equipment housing	Aluminum alloy, powder coated, IP66, Wall mount installation
		Certified Ex d	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and IECEx DEK 15.0048X

[PRODUCT PAGE](#)



LoRaWAN AC CURRENT SENSOR
WSLRW-AC

WSLRW-AC

LoRaWAN



WSLRW-AC-H1.JPG

LoRaWAN AC Current Sensor

[CE](#) [FCC](#)

Applications

Condition Based Monitoring, Machine Health Monitoring, Safety Monitoring, Energy Monitoring, Production Monitoring

LoRaWAN Communication

10-Year battery

Connect any 5A Current Transformers

High precision and stability

SPECIFICATION

Measuring range	0~5A AC, select 1 or 3 channels type	SF Factors	SF7~SF12
Accuracy	1.0%	Antenna	Internal Antenna 2.0 dbi
Resolution	10 -bit	Battery	02 x AA size 1.5VDC, battery not included
Temperature Drift	50 ppm per°C	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Electrical connection	cable 0.5m with crimping connectors for easy connection to the CT	Protocol	LoRaWAN, class A
Current Transformer	Support any current transformers with output 5A AC (to be supplied by customers)	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°C (using Energizer® Lithium Ultimate AA battery)
		Dimensions and Net-weight	H140xW73xD42, 250g (LoRaWAN Device only)

[PRODUCT PAGE](#)



LORAWAN RS485 MODBUS MASTER NODE
 WSLRW-MB485

WSLRW-MB485


**LoRaWAN Node with
RS485 Modbus Master
Port**
[CE](#) [FCC](#)
Applications

Electric Meter Reading, Gas Meter Reading,
Water Meter Reading, Production Monitoring,
Facility Monitoring

**LoRaWAN Compliance****10-Year battery****Connection to any RS485 Modbus slave device****IP68****SPECIFICATION**

Input port	1 x RS485 master port	SF Factors	SF7~SF12
Cable length	Shielded cable with marking A & B wires	Antenna	Internal Antenna 2.0 dbi
Protocol	Modbus RTU, max 31 slave device, max 32 Modbus command	Battery	02 x AA size 1.5VDC (battery not included)
Fault protected RS-485 bus pins	up to ±40V	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
HBM ESD protection on RS-485 bus pins	±15kV	Protocol	LoRaWAN, class A
Extended common mode range	±15V (larger than required for RS-485)	Data sending modes	Interval time and when alarm occurred
High transient over voltage tolerance	±60V	Certification	CE, FCC
Full fail-safe RS-485 receivers	open, short, terminated	Working temperature	-40~60°C (with AA L91 Energizer®)
		Dimensions	H180xW50xD40

PRODUCT PAGE


LoRaWAN Mini Control Valve
 WSLRW-BV

WSLRW-BV



WSLRW-BV-H1.JPG

**LoRaWAN Mini Control
Valve**
Applications

Smart Irrigation, Water Supply System,
Water Level Control, Oil Level Control

LoRaWAN communication**Remote Control via Class A or Class C****5-Year battery****Valve Health Diagnostic****SPECIFICATION**

Valve Body	Ball valve, low torque design	SF Factors	SF7~SF12
Body materials	Brass (standard), 304SS, 316SS	Antenna	Internal Antenna 2 dbi
Sealing	EPDM (standard), NBR, Silicone Rubber	Power Supply	Primary batteries 02 x D size 3.6VDC (battery not included)
Seat	PTFE		860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Ball	304SS (standard), 316SS	RF Frequency and Power	
Size	DN8, DN15, DN20, DN25	Protocol	LoRaWAN Class A or Class C V1.0.3
Process connection	BSPP female threads	Data sending modes	Interval time, alarm and manually triggering by magnetic key
Cable	2m molded M12 connector cable	Alarm function	Yes
Working temperature	0~100°C	Remote control via downlink	Class A or Class C mode
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)

PRODUCT PAGE



LORAWAN EXD AMBIENT HUMIDITY AND TEMPERATURE SENSOR
WSLRWEX-ATH

WSLRWEX-ATH

LoRaWAN Ex d Ambient Humidity & Temperature Sensor

[ATEX](#) [IECEX](#)

Applications

Automatic Ventilation System, Facility Monitoring, Indoor Air Quality Monitor, Warehouse Monitoring, Temperature Monitoring



LoRaWAN communication

5-10 Years battery

High Accuracy & Stable

Optional Rain Guard and Splash Guard

SPECIFICATION

Sensor	Digital type, factory calibrated, output both Humidity & Temperature values	SF Factors	SF7~SF12
Sensor Type	Integral or Remote type with cable	Antenna	External Antenna 2.0 dbi
Humidity measuring range & accuracy	0~100% RH, ±2.0%	Battery	01 x C size 3.6VDC, battery not included
Humidity resolution	0.1%	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Temperature measuring range & accuracy	-40~85°C, ±0.2°C	Protocol	LoRaWAN®, class A
Temperature resolution	0.1°C	Data sending modes	Interval time, magnetic key initiation and alarm event
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Certified Ex d	FTZU 03 ATEX 0207U, TÜV CY 18 ATEX 0206158 X and IECEX FTZU 12.0017U, IECEX MSC 19.0001X
		Hazard Protection Label	ATEX II 2G Ex db IIC T5/T6 Gb and ATEX II 2D Ex tb IIIC T100/T85°C Db

[PRODUCT PAGE](#)



LoRaWAN TOWER VIBRATION SENSOR
WSLRW-TVS

WSLRW-TVS

LoRaWAN Tower Vibration Sensor

Applications

Vibration Monitoring, Tilt Monitoring, Facility Monitoring, Safety Monitoring



WSLRW-TVS-H1.JPG

High Accuracy & Stable Vibration Measurement

Maintenance free

Integrated with Solar

Long life design

SPECIFICATION

Sensor technology	High precision Dual-axis vibration sensor and Solid-state wind sensor	SF Factor	SF7~SF12
Measurement	Displacement, Frequency, static Tilt angles, Wind speed, and Wind direction	Antenna	External Antenna 2.0 dbi
Displacement range, Resolution	±1200mm, 1mm	Functions	Sending data in interval or when alarms occur
Displacement accuracy	±5% RD for Range 50~1200mm, ±0.5% RD for Range <50mm	Power	Solar Panel with Rechargeable batteries 4 x AA Panasonic® Eneloop™ Standard (batteries are not included)
Frequency range, Resolution	0.15~1.00 Hz, 0.01 Hz	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Frequency accuracy	±0.1 Hz	Protocol	LoRaWAN, class A
Tilt angle range, Resolution	±30°, 0.001°	Data sending modes	Interval time and when alarm occurred
Tilt angle repeatability	±0.01°	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Wind speed range, Resolution, Accuracy	0 - 50 m/s, 0.1, ±3% of Reading	Operating temperature of device	-20~50°C (limited by Panasonic Eneloop Standard Batteries)

[PRODUCT PAGE](#)





WSLRWEX-ACS

LoRaWAN Ex d Acoustic Sensor

[ATEX](#) [IECEX](#)

Applications

Gas Leakage Detection, Valve Monitoring, PRV Monitoring

LoRaWAN communication

Multi-parameter measurement

Plug and Play

Easy Installation

SPECIFICATION

Measurement technology	Daviteq vibration and acoustic measurement technology	SF factors	SF7~SF12
Measured Parameters	Acoustic level (0~255), Temperature (°C)	Antenna	2 dbi external antenna N-type
Measured Temperature Range	-40~260°C	RF power and frequency	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Ambient humidity range	0~100% RH	Protocol	LoRaWAN® Class A V1.0.3
Ambient temperature range	-40~85°C	Data sending mode	cyclically, or when an alarm occurs or activated by a magnetic key.
Process Temperature Range	-40~260°C	RF module compliant	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (USA), ARIB STD-T108 (Japan)
		Device certification	CE or FCC on demand
		Configuration	via Downlink or via USB cable (PC software provided free of charge)
		Power supply	1 x D size battery 3.6V LiSOCl2 (recommend Saft LS33600)

[PRODUCT PAGE](#)
LoRaWAN INDOOR CO2 SENSOR
WSLRW-I-CO2

WSLRW-I-CO2

LoRaWAN



LoRaWAN Indoor Carbon Dioxide Sensor

Applications

Indoor Air Quality Monitor, Warehouse Monitoring

LoRaWAN communication

5-10 years battery

High Accuracy & Stable

Measure other parameters

SPECIFICATION

CO ₂ Sensor technology	Advanced NDIR sensor	SF Factor	SF7~SF12
CO ₂ range/ resolution/ accuracy	0~5000ppm or 10000/ 1ppm/ (±30ppm + 3% reading)	Antenna	Internal Antenna 2.0 dbi
Repeatability	±30ppm + 3% reading (in 0~50°C, after zeroing at 25°C)	Battery	02 x AA size 1.5VDC, battery not included
Temperature range/ resolution/ accuracy	-40~80°C/ 0.1°C/ ±0.3°C in range 0-50°C		860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Humidity range/ resolution/ accuracy	0-100% RH/ 0.1% RH/ ±1.5% RH (in range 0-80% RH)	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
		Protocol	LoRaWAN, class A
		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)
		Vietnam Type Approval	TBA soon
		Working temperature	-40~60°C (with AA L91 Energizer®)

[PRODUCT PAGE](#)




WSLRWEX-G

LoRaWAN Ex d Electro-chemical Gas Sensor

[ATEX](#) [IECEX](#)

Applications

Gas Leakage Detection, Ambient Air Quality Monitor, Indoor Air Quality Monitor

LoRaWAN communication

High Performance Sensor

5-10 years Battery life

Ex d Zones 1-2-21-22

SPECIFICATION

Measurement technology	Daviteq High-performance Ultra-low power Electro-chemical Gas Sensor
Select Gas Sensor type	CO, NO, NO ₂ , H ₂ S, NH ₃ , O ₂ , O ₃ , SO ₂ , Cl ₂ , HCHO etc.
Gas sensor type and specification	List of compatible gas sensors and specification

SF Factors	SF7~SF12
Antenna	External Antenna 2.0dbi
RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Protocol	LoRaWAN® Class A
Data sending modes	interval time, an alarm occurred and manually triggered by a magnetic key. Recommend max 24 messages per day
Configuration	via Downlink or offline USB cable (PC software is supplied for free)
Battery	01 type C 3.6V LiSOCl ₂ battery (recommended SAFT LS26500)
Housing	Aluminum alloy, powder coated, IP66, Wall mount installation
Certified Ex d	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and SIRA 10ATEX1358X

PRODUCT PAGE

LoRaWAN Ex APPROVED PID GAS SENSOR
WSLRWEX-PID

WSLRWEX-PID-H1.JPG

WSLRWEX-PID

LoRaWAN Ex d PID Gas Sensor

[ATEX](#) [IECEX](#)

Applications

Gas Leakage Detection, Ambient Air Quality Monitor, Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring

LoRaWAN communication

High Performance PID Gas Sensor

Easy operation at Field by LCD

Ex Solar Powered

SPECIFICATION

Measurement technology	Daviteq high-performance PID gas sensor
Measured Gases	VOCs and Hydrocarbons (1000+ types of VOC and gas)
Principle and Sensor Specification	Please follow this link
Relative humidity range	0~99% RH, non-condensing
Operating Temp Range	-40~55°C (except 0~40°C for Range 3ppm sensor)

SF factors	SF7~SF12
Antenna	2 dbi external antenna N-type
RF power and frequency	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Protocol	LoRaWAN® Class A V1.0.3
Data sending mode	cyclically, or when an alarm occurs or activated by a magnetic key.
RF module compliant	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (USA), ARIB STD-T108 (Japan)
Device certification	CE or FCC on demand
Configuration	via Local LCD, or Downlink or via USB cable (PC software provided free of charge)
Power supply	12~35VDC, max 200mA by external DC supply or Ex approved Solar Power Skid (as below ordering information)

PRODUCT PAGE



LoRaWAN INDUSTRIAL AMBIENT TEMPERATURE SENSOR
 WSLRW-S-ATE


WSLRW-S-ATE-H1.PNG

WSLRW-S-ATE

LoRaWAN Industrial Ambient Temperature Sensor

Applications

Facility Monitoring, Warehouse Monitoring,
Indoor Air Quality Monitor

LoRaWAN communication

10-Year battery

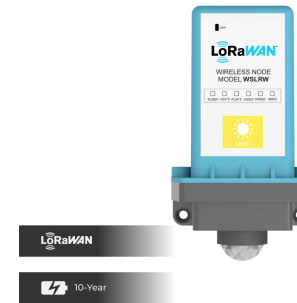
High Accuracy & Stable

IP68 Sensor Probe

SPECIFICATION

Sensor	Digital type, factory calibrated, IP68, immersiable to ice-water for quick validation	SF Factor	SF7~SF12
Measuring range	-35~70°C	Antenna	Internal Antenna 2.0dbi
Accuracy & Resolution	< ±0.5°C, 0.125°C	Power Supply	Primary batteries 1 x AA size 3.6VDC (battery not included)
Sensor material	PA plastic with PVC cable	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Cable length	Select 300mm, 500mm, 900mm	Protocol	LoRaWAN Class A V1.0.3
Sensor probe rating	IP68	Data sending modes	Interval time, magnetic key initiation and alarm
		Alarm function	Low Alarm and High Alarm
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Vietnam Type Approval	

PRODUCT PAGE


LORAWAN AMBIENT LIGHT SENSOR
 WSLRW-AL


CE FCC RoHS

WSLRW-AL

LoRaWAN Ambient Light Sensor

[CE](#) [FCC](#)

Applications

Facility Monitoring, Safety Monitoring

LoRaWAN communication

Visible light measurement

10-Year battery

IP68

SPECIFICATION

Sensor technology	Light sensor with Precision Optical Filtering to Match Human Eye, Rejects > 99% (typ) of IR	SF Factors	SF7~SF12
Measurements range	0.01 lux to 83 k lux 23-Bit Effective resolution	Antenna	Internal Antenna 2 dbi
Linearity	2% of Reading value for > 40 Lux, 5% of Reading value when the light is less than 40 lux	Power Supply	Primary batteries 02 x AA size 1.5VDC (battery not included)
Temperature drift	0.01%/°C when light intensity is about 2000 lux	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Operating Temperature Range	-40~85°C	Protocol	LoRaWAN Class A V1.0.3
		Data sending modes	interval time, alarm and manually triggering by magnetic key
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Working temperature	-40~60°C (with AA L91 Energizer®)
		Dimensions	H106xW73xD42

PRODUCT PAGE



LoRaWAN DIGITAL INPUT NODE
 WSLRW-DI


LoRaWAN Digital Input Node

[CE](#) [FCC](#)

Applications

Electric Meter Reading, Gas Meter Reading, Water Meter Reading, Production Monitoring, Facility Monitoring, Flood Monitoring, Level Monitoring, Machine Health Monitoring, Safety Monitoring

LoRaWAN communication

Logic detecting or Pulse counting

10-Year battery

IP68

SPECIFICATION

Digital Inputs	2-channel dry contact or low voltage ($\leq 3.3V$)	SF Factors	SF7~SF12
Operation	Detecting status or Pulse counting (max 1 kHz)	Antenna	Internal Antenna 2.0 dbi
VERSION	DI-12 (Low-speed digital input)	Electrical connection	Shielded cable 2m length with PG9 cable gland
Input	2-Digital channel inputs with dry-contact or voltage input (max 3.3VDC)	Power Supply	Primary batteries 02 x AA size 1.5VDC (battery not included)
Functions	Logic Detecting or Pulse Counting	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
	Logic Detecting: 2 channels, recommended minimum interval time between 02 statuses is 5 seconds.	Protocol	LoRaWAN Class A V1.0.3
	Pulse Counting: 1 channel only, max frequency 2Hz, minimum Pulse width (low or high) is 200mS, counter is uint32 type.	Data sending modes	interval time, alarm and manually triggering by magnetic key
VERSION	DI-12H (High-speed digital input)	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Input	2-Digital channel inputs with dry-contact or voltage input (max 3.3VDC)	Working temperature	-40~60°C (with AA L91 Energizer®)

[PRODUCT PAGE](#)


LoRaWAN LASER LEVEL SENSOR
 WSLRW-LSL

LoRaWAN

10-Year

IP68



WSLRW-LSL-H1.JPG

WSLRW-LSL

LoRaWAN Laser Level Sensor

Applications

Level Monitoring, Process Monitoring

LoRaWAN communication

10-Year battery

High Accuracy & Stable

Dust Protection

SPECIFICATION

Sensor technology	Eye-safe laser level sensor, class II laser	SF Factors	SF7~SF12
Measurement range	Select 50, 100m (bright color surface in dark environment)	Antenna	External Antenna 2.0 dbi
Dead zone	0.03 m	Battery	1 x D size 3.6VDC (battery not included)
Resolution	1.0 mm	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Accuracy	± 5.0 mm	Protocol	LoRaWAN, class A
Dust tube	Yes, standard	Data sending modes	Interval time and when alarm occurred
Air cleaning port	OD 6mm tube quick connector, max 0.5 barg clean & dry air.	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Process connection	standard equivalent to 80A JIS 10K flange (the thickness is smaller)	Working temperature	-10~60°C (with SAFT LS33600 battery)
Process temperature	-10~60°C standard	Dimensions	220x220x450 (without antenna)

[PRODUCT PAGE](#)



LoRaWAN 0-20mA CURRENT INPUT SENSOR
WSLRW-MA

LoRaWAN



WSLRW-MA-H1.PNG

WSLRW-MA

LoRaWAN Current Input
Node[CE](#) [FCC](#)

Applications

Process Monitoring, Safety Monitoring

LoRaWAN communication

10-Year battery

Pre-calibrated

IP67/IP68

SPECIFICATION

Measuring range	0~20mA	SF Factors	SF7~SF12
Accuracy	0.05% of span	Antenna	Internal Antenna 2.0 dbi
Resolution	1/3000	Battery	02 x AA size 1.5VDC (battery not included)
Permissible input current	Max 60 mA		860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Permissible voltage	Max 2.5V (between AI+ and AI-)	RF Frequency and Power	
Power supply output	15VDC max (Configurable via offline tool)	Protocol	LoRaWAN, class A
Temperature drift	< 50ppm	Configuration	via Downlink or Offline tool (free software)
Sensor port connector	M12-Male, 4-pin A-coding (IP67 version) or 2m cable (IP68 version)	Data sending modes	Interval time and when alarm occurred
		Certification	CE mark, FCC
		Working temperature	-40~60°C (with AA L91 Energizer®)

PRODUCT PAGE

LoRaWAN OXYGEN SENSOR
WSLRW-O2

LoRaWAN



WSLRW-O2-H1.JPG

WSLRW-O2

LoRaWAN Oxygen
Sensor[CE](#) [FCC](#)

Applications

Ambient Air Quality Monitor, Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring

LoRaWAN communication

5-10 years battery

Not affected by other gases

Not affected by temperature changes

SPECIFICATION

Measuring range/Max overload	0~25% O ₂ / 30% O ₂	SF Factors	SF7~SF12
Accuracy/Resolution	±0.25% O ₂ / 0.01	Antenna	Internal Antenna 2.0 dbi
Long term output drift	< 5% of reading per year	Battery	02 x AA size 1.5VDC, battery not included
Interference gases for version O2-01	CO ₂ , not used in the environment with CO ₂ > 25% (1% of CO ₂ will increase 0.3% of O ₂ output)	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
	Virtually no influence from CO ₂ , CO, H ₂ S, NO, H ₂ . Only influenced by NO ₂ (1% NO ₂ will increase 0.6% of O ₂ output)	Protocol	LoRaWAN, class A
Working Pressure	1013hPa ±20%	Data sending modes	Interval time and when alarm occurred
Working Temperature	-10~50°C for O2-02 and -30~50°C for O2-01	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Storage Temperature	0~20°C	Vietnam Type Approval	TBA soon
Working Humidity	0-99% RH non-condensation for O2-02 and 5~95%, non-condensation for O2-01	Working temperature	-40~60°C (with AA L91 Energizer®)

PRODUCT PAGE



LoRaWAN PROCESS PRESSURE SENSOR
WSLRW-PPS

WSLRW-PPS-H1.PNG

WSLRW-PPS

LoRaWAN Process
Pressure Sensor[CE](#) [FCC](#)

Applications

Water Pressure Pipeline Monitor, Process Monitoring, Smart Irrigation, Fuel Monitoring, Level Monitoring, Safety Monitoring

LoRaWAN communication

10-Year battery

High Accuracy & Stable

IP68

SPECIFICATION

Sensor	Advanced Piezo technology	SF Factors	SF7~SF12
Measurement range	Select from -1~1000 bar Gage/ Absolute/ Sealed Gage	Antenna	Internal Antenna 2.0 dbi
Over pressure protection	1.5 x span	Battery	02 x AA size 1.5VDC, battery not included
Accuracy & Stability	0.25% or 0.5% of span, < 0.2% span/ year	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Wetted parts	304SS/316SS	Protocol	LoRaWAN, class A
Measuring Fluids	Any fluid which is workable with materials 304SS/316SS	Data sending modes	Interval time and when alarm occurred
Working temperature	-20~80°C	Configuration	via Downlink messages or Off-line tool (Software is free)
Compensation temperature	-10~50°C	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Process connection	Standard G 1/4 or Others (consult factory)	Working temperature	-40~60°C (with AA L91 Energizer®)

PRODUCT PAGE

LoRaWAN PT100 TEMPERATURE SENSOR
WSLRW-PT100

WSLRW-PT100-H1.PNG

WSLRW-PT100

LoRaWAN PT100
Temperature Transmitter

Applications

Temperature Monitoring, Process Monitoring, Safety Monitoring

LoRaWAN communication

10-Year battery

Pre-calibrated

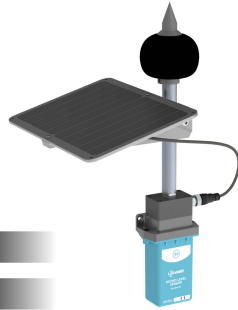
Outdoor IP67

SPECIFICATION

Input	PT100 Temperature Sensor	SF Factors	SF7~SF12
Accuracy	0.05%	Antenna	Internal Antenna 2.0 dbi
Sensor port connector	PG9 Connector	Battery	02 x AA size 1.5, battery not included
		RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
		Protocol	LoRaWAN, class A
		Data sending modes	Interval time, magnetic key initiation and when alarm occurred
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Vietnam Type Approval	
		Working temperature	-15~60°C (using L91 Energizer® battery)

PRODUCT PAGE



LORAWAN SOUND LEVEL SENSOR
 WSLRW-SL


LoRaWAN Sound Level Sensor

Applications

Ambient Air Quality Monitor, Facility Monitoring, Machine Health Monitoring, Safety Monitoring



Wide frequency range

LoRaWAN Communication

10-Year battery

For Outdoor

SPECIFICATION

Measuring range	30~120dB(A)	SF Factors	SF7~SF12
Frequency range	20~12,500Hz	Antenna	Internal Antenna 2.0dbi
Resolution	0.1dB(A)	Power Supply	02 x AA size 1.5VDC, battery not included for Primary Battery version OR solar panel (buy separately) with 2 x Panasonic® Eneloop™ standard batteries (customer to supply). Solar panel version is powered by 6..9VDC solar panel or DC supply via M12 connector.
Accuracy	±0.5dB(A) at 94dB(A) and 1kHz		
Working temperature	-20~60°C	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Working humidity	0~80% RH	Protocol	LoRaWAN Class A V1.0.3
		Data sending modes	interval time, and manually triggering by magnetic key
		CE and FCC	Yes
		Working temperature	-40~60°C (with AA L91 Energizer®). Rechargeable battery version can only be recharged at ambient temperature higher than +5°C.
		Dimensions	please check dimension drawings

PRODUCT PAGE


LoRaWAN SOIL MOISTURE SENSOR
 WSLRW-SMT


WSLRW-SMT-H1.PNG

WSLRW-SMT

LoRaWAN Soil Moisture Sensor

Applications

Flood Monitoring, Infrastructure Monitoring, Smart Irrigation

LoRaWAN communication

10-Year battery

Pre-calibrated

High Accuracy

SPECIFICATION

Moisture & EC Sensors	Advanced technology - Frequency Domain Reflectometry with response time	SF Factors	SF7~SF12
Moisture range/ accuracy/ resolution	0~100%, acc ±3.0% , res 0.01%	Antenna	Internal Antenna 2.0 dbi
Temperature range/ accuracy/ resolution	-30~70°C, acc ±0.3°C, res 0.1°C	Battery	02 x AA size 1.5VDC, battery not included
EC range/ accuracy/ resolution	0~20mS/cm, acc ±2.0% span, res 0.1 mS/cm	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
N-P-K range/ accuracy/ resolution	0-1999mg/kg, acc ±2% span, res 1.0mg/kg	Protocol	LoRaWAN
Measurement Volume	Dia. 70mm x Height 70mm	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Wetted materials	316L SS & thermoplastic	Vietnam Type Approval	
Sensor Dimensions	71x45x16mm with probes 70mm and signal cable 2m, IP68 rating	Working temperature	-40~60°C (with AA L91 Energizer®)
Optional Soil Erosion Sensor	Clinometer type	Dimensions/Netweight	H106xW73xD42, 190g (Wireless part only)

PRODUCT PAGE



LoRaWAN NODE WITH THERMOCOUPLES
SENSOR INPUT
WSLRW-TCK



WSLRW-TCK-H1.JPG

WSLRW-TCK

LoRaWAN Thermocouple Temperature Transmitter

Applications

Temperature Monitoring, Process Monitoring,
Safety Monitoring

LoRaWAN communication

10-Year battery

Pre-calibrated

Outdoor IP67

SPECIFICATION

Input	Thermocouple Temperature Sensor Type B, Type E, Type J, Type K, Type N, Type R, Type S, Type T	SF Factors	SF7~SF12
		Antenna	Internal Antenna 2.0 dbi
		Battery	02 x AA size 1.5, battery not included
Accuracy	±0.55°C in ambient temperature range -20~100°C ±1.05°C in ambient temperature range -40~125°C **Not included error of Thermocouples	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Resolution	0.1°C	Protocol	LoRaWAN, class A
Sensor port connector	Internal Connectors via PG9 Cable Gland	Data sending modes	Interval time and when alarm occurred
		Certifications	CE, FCC marks
		Working temperature	-40~60°C (using L91 Energizer® battery)
		Dimensions	H180xW90xD50mm

[PRODUCT PAGE](#)


LoRaWAN ULTRASONIC LEVEL SENSOR FOR TRASH BIN
WSLRW-ULA



WSLRW-ULA-H1.PNG

WSLRW-ULA

LoRaWAN Ultrasonic Level Sensor for Trash bin ULA

Applications

Waste Management, Process Monitoring,
Safety Monitoring, Infrastructure Monitoring

LoRaWAN communication

5-10 years battery

High Accuracy & Stable

IP68 Outdoor

SPECIFICATION

Sensor	Ultrasonic sensor 40kHz	SF Factors	SF7~SF12
Measurement range	3~450cm	Antenna	Internal Antenna 2.0 dbi
Accuracy	±(1cm + 0.5% reading)	Battery	02 x AA size 1.5, battery not included
Resolutions	1mm OR 1‰	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Alarm setting	setting the alarm threshold for calculated value	Protocol	LoRaWAN, class A
Working temperature/humidity	-15~60°C/ 0~99% RH (non-condensing)	Data sending modes	Interval time and when alarm occurred
Storage temperature/humidity	-25~80°C/ 0~99% RH (non-condensing)	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Transducer material	Ceramic	Electronics working temperature	-40~60°C (using L91 Energizer® battery)
		Housing	H154xW68xD43, Polycarbonate, IP68

[PRODUCT PAGE](#)


LoRaWAN ULTRASONIC LEVEL SENSOR FOR TRASH BIN
WSLRW-ULB

WSLRW-ULB

LoRaWAN Ultrasonic
Level Sensor for Trash
bin ULB[CE](#) [FCC](#)

Applications

Waste Management, Process Monitoring,
Safety Monitoring, Infrastructure Monitoring

LoRaWAN communication

5-10 years battery

High Accuracy & Stable

Angle-adjustable mounting bracket

SPECIFICATION

Sensor	Ultrasonic sensor	SF Factors	SF7~SF12
Measurement range	300~4500mm	Antenna	Internal Antenna 2.0 dbi
Resolution & accuracy	1.0mm, ±10mm	Battery	02 x AA size 1.5, battery not included
Sensor sampling rate	configurable from 10s up to 3600s	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Alarm setting	setting the alarm threshold for calculated value	Protocol	LoRaWAN® Class A
		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)
		Vietnam Type Approval	
		Working temperature	-15~60°C (using L91 Energizer® battery)

PRODUCT PAGE

LoRaWAN ULTRASONIC LEVEL SENSOR
WSLRW-ULC

WSLRW-ULC

LoRaWAN Ultrasonic
Liquid Level Sensor[CE](#) [FCC](#)

Applications

Flood Monitoring, Level Monitoring, Process
Monitoring, Safety Monitoring, Smart
Irrigation, Infrastructure Monitoring

LoRaWAN communication

10-Year battery

High Accuracy & Stable

IP68 Outdoor

SPECIFICATION

Sensor	Ultrasonic sensor	SF factors	SF7~SF12
Measurement range	250~5500mm (Non-flat surface will give shorter range in actual condition)	Antenna	Internal Antenna 2.0dbi
Resolution	±5.0mm	Battery	02 x AA size 1.5VDC, battery not included
Accuracy	±10mm + S*0.3% (with S is the measured value)	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Sensor sampling rate	configurable from 10s up to 3600s	Protocol	LoRaWAN® Class A
Alarm setting	setting the alarm threshold for calculated value	Data sending modes	Interval time and when alarm occurred
		Configuration	via downlink or offline cable (software is free)
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Working temperature	-15~60°C (with AA L91 Energizer®)

PRODUCT PAGE



LoRaWAN PIEZO-ELECTRIC 10KHZ VIBRATION SENSOR
 WSLRW-V1A

WSLRW-V1A

**LoRaWAN Piezo-Electric
10kHz Vibration Sensor**
[CE](#) [FCC](#)
Applications

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

**LoRaWAN communication****10-Year battery****10kHz Bandwidth****High Performance Piezo-electric sensor****SPECIFICATION**

Sensor technology	(* Note: All below values are typical at +24°C, 80Hz)	SF Factors	SF7~SF12
	Hermetically Sealed, Piezo-Ceramic Crystal, Shear Mode	Antenna	Internal Antenna 2.0dbi
9-Parameter Measurement	Band A RMS Velocity, Band B RMS Acceleration, Band B Kurtosis, Band B Crest Factor, Band C Peak Acceleration, Band C Kurtosis, Band C Crest Factor, Surface Temperature, Shock Count	Power supply	7-48 VDC for external power supply version or 02 x AA size 1.5, battery not included for battery version
		RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Acceleration Range & Shock Limit (g)	±25, 10000	Protocol	LoRaWAN® Class A V1.0.3
Acceleration resolution	6.1mg	Data sending modes	Interval time and when alarm occurred
Velocity range and resolution	0~50mm/s, 0.1mm/s	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Temperature measuring and operating	-40~85°C, with accuracy: ±0.5 and resolution: 0.125	Working temperature	-40~60°C (using Energizer® Lithium Ultimate AA battery)
Sensor Material, rating and mounting	304SUS, IP67, M6 Screw	Dimensions & Net-weight	H106xW73xD42, 190g
Connector	M12-M 5-pin (Coding A) with 2m cable, wired to LoRaWAN node		

PRODUCT PAGE


HEAVY DUTY LoRaWAN NODE WITH DIGITAL INPUT
 WSLRWAL-DI

WSLRWAL-DI

**LoRaWAN Heavy Duty
Digital Input Node**
Applications

Process Monitoring, Safety Monitoring,
Energy Monitoring, Electric Meter Reading,
Gas Meter Reading, Water Meter Reading,
Production Monitoring



WSLRWAL-DI-H1.JPG

LoRaWAN communication**Heavy Duty Design****5-10 years battery****Plug & Play****SPECIFICATION**

Digital Inputs	2-channel dry contact or low voltage (≤3.3V)	Protocol	LoRaWAN® Class A, V1.0.3
Operation	Detecting status or Pulse counting (max 1kHz)	SF Factors	SF7~SF12
VERSION	DI-12 (Low-speed digital input)	Antenna	External Antenna
Input	2-Digital channel inputs with dry-contact or voltage input (max 3.3VDC)	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Functions	Logic Detecting or Pulse Counting	Data sending modes	interval time, or when status changes, or manually triggered by a magnetic key.
	Logic Detecting: 2 channels, recommended minimum interval time between 02 statuses is 5 seconds.	Configuration	via Downlink or offline USB cable (PC software is supplied for free)
	Pulse Counting: 1 channel only, max frequency 2Hz, minimum Pulse width (low or high) is 200mS, counter is uint32 type.	Battery	01 x C type LiSOCl ₂ 3.6V battery, not included (recommend SAFT LS26500)
VERSION	DI-12H (High-speed digital input)	Housing	Cast aluminum, IP66
Input	2-Digital channel inputs with dry-contact or voltage input (max 3.3VDC)	Applicable Zones	Safe areas

PRODUCT PAGE



LoRaWAN NODE WITH DIGITAL INPUTS
WSLRWEX-DI

LoRaWAN



daviteq



WSLRWEX-DI-H1.JPG

WSLRWEX-DI

LoRaWAN Ex d Digital Input Node

[ATEX](#) [IECEX](#)

Applications

Process Monitoring, Safety Monitoring, Energy Monitoring, Oil & Gas Pipeline Monitor, Electric Meter Reading, Gas Meter Reading, Water Meter Reading, Production Monitoring

LoRaWAN communication

For hazardous Zone 1-2-21-22

5-10 years battery

Plug & Play

SPECIFICATION

Digital Inputs	2-channel dry contact or low voltage ($\leq 3.3V$)	Communication	LoRaWAN® Class A, V1.0.3
Operation	Detecting status or Pulse counting (max 1kHz)	SF Factors	SF7~SF12
VERSION	DI-12 (Low-speed digital input)	Antenna	External Antenna
Input	2-Digital channel inputs with dry-contact or voltage input (max 3.3VDC)	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Functions	Logic Detecting or Pulse Counting Logic Detecting: 2 channels, recommended minimum interval time between 02 statuses is 5 seconds.	Data sending modes	interval time, or when status changes, or manually triggered by a magnetic key.
	Pulse Counting: 1 channel only, max frequency 2Hz, minimum Pulse width (low or high) is 200mS, counter is uint32 type.	Configuration	via Downlink or offline USB cable (PC software is supplied for free)
VERSION	DI-12H (High-speed digital input)	Battery	01 x C type LiSOCl ₂ 3.6V battery, not included (recommend SAFT LS26500)
Input	2-Digital channel inputs with dry-contact or voltage input (max 3.3VDC)	Housing	Cast aluminum, IP66
		Ex Certification	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and IECEx DEK 15.0048X

PRODUCT PAGE



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Expertise Meets Innovation.

LORAWAN EX D NDIR FLAMMABLE GAS SENSOR
WSLRWEX-GHC

WSLRWEX-GHC



ME-1

LoRaWAN Ex d NDIR Flammable Gas Sensor

Applications

Gas Leakage Detection, Ambient Air Quality Monitor, Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring

LoRaWAN communication

Durable sensor with 10 year life span

5-10 years battery (GHC-01 and GHC-02)

Ex d Zones 1-2-21-22

SPECIFICATION

Measurement technology	Daviteq High-performance and Ultra-low power NDIR sensor, 10 years sensor life span.	SF factors	SF7~SF12
Measuring range	0~100% flammable gas LEL, equivalent to 0~5% vol. (CH ₄). For C ₂ H ₄ , C ₂ H ₆ , C ₃ H ₈ , C ₄ H ₁₀ gas application please contact us	Antenna	2 dbi external antenna N-type
Resolution Response time (T90)	0.1% LEL / < 40 seconds	RF power and frequency	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Measurement variation	for CH ₄ it is $\pm 0.1\%$ vol. or $\pm 5\%$ of reading (whichever is greater) in the 20~25°C temperature range	Protocol	LoRaWAN® Class A, V1.0.3
Temperature Humidity Operating pressure	-40~60°C / 0~98% RH, non-condensing / 80kPa~120kPa	Data sending mode	cyclically, or when an alarm occurs or activated by a magnetic key.
		RF module compliant	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (USA), ARIB STD-T108 (Japan)
		Configuration	via Downlink or via USB cable (PC software provided free of charge)
		Power	01 x battery type D 3.6V LiSOCl ₂ (recommended SAFT LS33600) for GHC-01 and GHC-02
		Equipment housing	Aluminum alloy, powder coated, IP66, Wall mount installation

PRODUCT PAGE



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Expertise Meets Innovation.

Ex D APPROVED LoRaWAN PROCESS PRESSURE SENSOR
WSLRWEX-PPS

WSLRWEX-PPS



WSLRWEX-PPS-H1.JPG

LoRaWAN Ex d Process Pressure Sensor

[ATEX](#) [IECEX](#)

Applications

Oil & Gas Pipeline Monitor, Process Monitoring, Safety Monitoring

Supports LoRaWAN and P2P-Lora mode

10-Year battery

High Accuracy & Stable

Ex d Zones 1-2-21-22

SPECIFICATION

Sensor	Advanced Piezo technology	Protocol	LoRaWAN® Class A, V1.0.3 and P2P-LoRa Mode
Measurement range	Select from -1~1000 bar Gage/ Absolute/ Sealed Gage (Over pressure protection: 2 x span)	SF Factors	SF7~SF12
Accuracy & Stability	0.2% of span, < 0.1% span/ year	Antenna	External Antenna 2.0 dbi
Wetted parts & Measuring Fluids	316SS, Any fluid which is workable with materials 316SS	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AS923-2, AU915, US915
Process Working temperature	-40~130°C (compensation in -10~80°C)	Data sending modes	interval time, or when status changes, or manually triggered by a magnetic key.
Process connection	1/2" NPT-male as standard, others please consult factory	Configuration	via Downlink or offline USB cable (PC software is supplied for free)
		Battery	01 x C type LiSOCl ₂ 3.6V battery, not included (recommend SAFT LS26500)
		Housing	Cast aluminum, IP66
		Ex Certification	IMQ 14 ATEX 005 X, TÜV CY 18 ATEX 0206158 X and IECEX DEK 15.0048X

[PRODUCT PAGE](#)



MODULAR AMBIENT AIR QUALITY MONITOR
MAQM

MAQM



MAQM-H1.JPG

Modular Ambient Air Quality Monitor

Applications

Ambient Air Quality Monitor

Modular Design

Multiple Connectivity

Support Solar Power

Outdoor IP66

SPECIFICATION

Modular parameters	Humidity, Temperature, PM1.0, PM2.5, PM10, CO, O ₂ , SO ₂ , NO ₂ , Sound Level etc.	Connection	Sigfox RC1 to RC7
Sensor parameters	Refer to this link		LoRaWAN Multi-Band Worldwide
			RS485 ModbusRTU
			WiFi 2.4GHz
			Ethernet 10Mbps
		Working temperature	-20~60°C
		Working humidity	0~95% RH
		Housing	Powder coated die-cast aluminum housing, IP66
		Power	9~36VDC with rechargeable battery (8 x Panasonic® Eneloop™ Standard tablets, customer supplied)

[PRODUCT PAGE](#)



SMART INDOOR AIR QUALITY
SIAQ

SIAQ-H1.JPG

SIAQ

Smart Indoor Air Quality
Monitor

Applications

Indoor Air Quality Monitor, Gas Analyzing,
Warehouse Monitoring

Advanced Environment Sensors

Modular Design

Touch color LCD Display

IoT Connectivity

SPECIFICATION

Measurement	All in one device to measure indoor ambient Temperature, Humidity, CO ₂ , PM, TVOC, and HCHO formaldehyde.	Display	None or 2.8" color touch screen LCD display
Temperature range/ resolution/ accuracy	-20~70°C/ 0.1°C/ ±0.1°C	IoT Connectivity	Select WiFi 2.4GHz or Ethernet or 3G-Dual Band or 4G Cat M1/NB1
Humidity range/ resolution/ accuracy	0~100% RH/ 0.1% RH/ ±3.0% RH	SCADA Connectivity	Optional ports: RS485/ModbusRTU, Ethernet or WiFi with ModbusTCP
CO ₂ range/ resolution/ accuracy	0~40000 ppm/ 10ppm/ (±30ppm + 3% reading)	Housing	ABS plastic and Anodized Aluminum (model with LCD Display), IP20 protection
HCHO range/ resolution/ accuracy/ Limit of detection	0-1000 ppb/ 1 ppb/ ±20 ppb or ±20% reading which ever is greater/ < 20 ppb	Power supply	220VAC/50Hz (adapter)
HCHO sensor life	> 6 years	Dimension/ Net weight	120x82x55 mm/ <500g
Mass concentration	PM1.0, PM2.5, and PM10		
Mass concentration range	1~999µg/m ³		
Mass concentration resolution	1µg/m ³		

PRODUCT PAGE

SMART VORTEX FLOW METER
SVF128

Wireless Connectivities

LoRaWAN[®] sigfox

Sub-1GHz NB-IoT

Wire Output

4 - 20mA

RS485/Modbus RTU

Pulse



SVF128-H1.PNG

SVF128

Smart Vortex Flow Meter

Applications

Energy Monitoring, Facility Monitoring, Utility Monitoring, Process Monitoring, Flow Monitoring,

High turn down ratio

Anti-vibration

Multi-variable Measurement

No moving parts

SPECIFICATION

Process Fluids	Liquid, Gas, Steam, Compressed Air
Process connection	Flange or Wafer for size DN15~DN300 or 0.5 inch to 12 inch
Local Display	Standard integral LCD display. Optional Remote display with 10m cable
Measurable Parameters of standard version	Volumetric flow rates and totalizer, velocity.
Measurable Parameters of Multi-variables version	Mass flow rate, volumetric flow rate, temperature, pressure, velocity.
Output	Pulse, 4~20mA (HART V5, V7 @4~20mA), ModbusRTU RS485
Process Pressure	1.6MPa (232 psiG), 2.5MPa (362 psiG), 4.0MPa (580 psiG), 6.3MPa (913 psiG) for option
Process Temperature	Standard type: -40~150°C or -40~302°F Medium type: -40~250°C or -40~482°F High temperature type: -40~350°C or -40~662°F
Gas flow Turndown	DN15, DN20: Turndown ratio 10:1 DN25, DN32: Turndown ratio 15:1 DN40~DN300: Turndown ratio 30:1

PRODUCT PAGE



LoRaWAN TILT SENSOR
 WSLRW-AG

WSLRW-AG



LoRaWAN Tilt Sensor

[CE](#) [FCC](#)

Applications

Facility Monitoring, Flood Monitoring, Infrastructure Monitoring, Level Monitoring, Machine Health Monitoring, Safety Monitoring, Tilt Monitoring



010.2

LoRaWAN communication

10-Year battery

High Precision Tilt Measurement

Solar Powered for Fast Sampling Rate

SPECIFICATION

Tilt Sensor	Built-in advanced accelerometer to deliver tilt angle measurement of XYZ for AG-01 version, XY for AG-03 version	SF Factors	SF7~SF12
Tilt Measurement range	±90° for AG-01 version ±30° for AG-03 version	Antenna	Internal Antenna 2 dbi or external antenna
Tilt Resolution	±0.01° for AG-01 version ±0.001° for AG-03 version	Power Supply	Primary batteries 02 x AA size 1.5VDC (battery not included) or Solar Panel with Rechargeable batteries 2 x AA Panasonic® Eneloop™ Standard (not included)
Tilt Repeatability	±0.075° for AG-01 version ±0.010° for AG-03 version	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Tilt Temperature Drift	±0.2° per 10°C for AG-01 version (when installation X~0° and Y~0°)	Protocol	LoRaWAN Class A V1.0.3
Sensor sampling rate	1Hz max (recommend for Solar powered version)	Data sending modes	interval time, alarm (from FW5) and manually triggering by magnetic key
Shock Detection	Yes, max 2G threshold (only available in some FW version, please consult us)	Alarm function	from FW5, for X-axis only
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Vietnam Type Approval	

[PRODUCT PAGE](#)

LoRaWAN HUMIDITY & TEMPERATURE SENSOR
 WSLRW-ATH

WSLRW-ATH

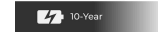


LoRaWAN Humidity & Temperature Sensor

[CE](#) [FCC](#)

Applications

Automatic Ventilation System, Facility Monitoring, Indoor Air Quality Monitor, Warehouse Monitoring, Temperature Monitoring



LoRaWAN communication

10-Year battery

High Accuracy & Stable

Optional Rain Guard and Splash Guard

SPECIFICATION

Sensor	Digital type, factory calibrated, output both Humidity & Temperature values	SF Factors	SF7~SF12
Sensor Type	Integral or Remote type with cable	Antenna	Internal Antenna 2.0 dbi
Integral Heater	Yes, for high-humidity application (applicable for external power version only)	Power	Battery powered version 02 x AA size 1.5VDC, battery not included External powered version 7..48VDC @ 200mA maximum, order M12-female 4-pin cable separately for power device.
Humidity measuring range	0~100% RH	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Humidity accuracy	Typical +/- 2.0% RH in 10..80%RH, otherwise +/- 3.0% RH (in 0 .. 60°C)	Protocol	LoRaWAN®, class A
Humidity repeatability	+/- 0.1%RH	Data sending modes	Interval time and when alarm occurred
Humidity resolution	0.1%	Certification	CE, FCC
Temperature measuring range & accuracy	-40~85°C	Electronics working temperature	-40~60°C (with AA L91 Energizer®)
Temperature accuracy	Typical +/- 0.2 oC in range 5 oC to 60 oC		

[PRODUCT PAGE](#)


LoRaWAN PRECISION FUEL LEVEL SENSOR
 WSLRW-CAP10

WSLRW-CAP10



WSLRW-CAP10-H1.JPG

LoRaWAN Precision Fuel Level Sensor

[CE](#) [FCC](#)

Applications

Energy Monitoring, Fuel Monitoring, Process Monitoring, Smart Irrigation, Vehicle Tracking

LoRaWAN communication

5-Year battery

High Precision 0.1%

Easy to Install

SPECIFICATION

SENSOR PROBE	SF Factors	SF7~SF12
Measurement fluids	Antenna	Internal Antenna 2.0 dbi
	Battery	02 x AA size 1.5VDC, battery not included
Measurement Range (mm)	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Accuracy/ Resolution/ Repeatability	Protocol	LoRaWAN, class A
Thermal drift	Data sending modes	Interval time and when alarm occurred
Connector	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Sensor MTBF	Working temperature	-40~60°C (using Energizer® Lithium Ultimate AA battery)
Sensor wetted materials	Dimensions and Net-weight	H140xW73xD42, 250g (LoRaWAN Device only)
Operating Temperature & Humidity Range		

PRODUCT PAGE


LORAWAN CARBON DIOXIDE SENSOR
 WSLRW-CO2

WSLRW-CO2



LoRaWAN Carbon Dioxide Sensor

Applications

Ambient Air Quality Monitor, Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring

LoRaWAN communication

5-10 years battery

High Accuracy & Stable

Measure other parameters

SPECIFICATION

CO ₂ Sensor technology	NDIR sensor	SF Factor	SF7~SF12
CO ₂ range/resolution/accuracy	0~5000 ppm or 10000/ 1ppm/ (±30ppm + 3% reading)	Antenna	Internal Antenna 2.0 dbi
Repeatability	±30ppm + 3% reading (in 0~50°C, after zeroing at 25°C)	Battery	02 x AA size 1.5VDC, battery not included
Temperature range/ resolution/ accuracy	-40~80°C/ 0.1°C/ ±0.3°C in range 0~50°C	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Humidity range/ resolution/ accuracy	0~100% RH/ 0.1% RH/ ±1.5% RH (in range 0~80% RH)	Protocol	LoRaWAN, class A
Barometric Pressure range/ resolution/ accuracy	300~1200 mbar/ 0.01 mbar/ ±4 mbar in range -20~85°C	Data sending modes	Interval time and when alarm occurred
Sensor housing material/ Rating	SS316/ SS304/ for Indoor use	RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Vietnam Type Approval	TBA soon
		Working temperature	-40~60°C (with AA L91 Energizer®)

PRODUCT PAGE



LoRaWAN GAS SENSOR
WSLRW-G4

WSLRW-G4



WSLRW-G4-H1.JPG

LoRaWAN Gas Detecting Sensor

[CE](#) [FCC](#)

Applications

Ambient Air Quality Monitor, Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring, Gas Leakage Detection

LoRaWAN communication

5-10 years battery

High Accuracy & Stable

Multiple choices of gas

SPECIFICATION

Select gas sensor	CO, NO, NO ₂ , H ₂ S, NH ₃ , O ₂ , O ₃ , SO ₂ , Cl ₂ , HCHO etc.	SF Factors	SF7~SF12
Gas sensor type and specification	List of compatible gas sensors and specification	Antenna	Internal Antenna 2.0 dbi
Sensor housing/ Rating	SS316/SS304 housing with 316SS sintered filter/ for indoor use (buy the optional accessory rain-guard for outdoor installation)	Battery	02 x AA size 1.5VDC, battery not included
		RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
		Protocol	LoRaWAN, class A
		Data sending modes	Interval time and when alarm occurred
		Configuration	via Downlink or Offline cable (software is free)
		RF Module complies to	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
		Working temperature	-40~60°C (with AA L91 Energizer®)

PRODUCT PAGE

LoRaWAN AMMONIA TOILET SENSOR
WSLRW-G4F-NH3

WSLRW-G4F-NH3



WSLRW-G4F-NH3-H1.JPG

LoRaWAN Toilet Odor Sensor

Applications

Indoor Air Quality Monitor, Gas Analyzing, Warehouse Monitoring, Odor Monitoring

High Sensitive Odor Sensor

Anti-tampering

LoRaWAN communication

10-Year battery

SPECIFICATION

Sensor type	High sensitive electrochemical type sensor, built-in auto-sampling mechanism	SP factors	SF7~SF12
NH ₃ range	0~100 ppm (or equivalent 0~285.7ppm H ₂ S)	Antenna	Internal Antenna 2.0 dbi
NH ₃ tolerance limit	200ppm	Battery	02 x AA size 1.5VDC, battery not included
Repeatability/ Resolution/ Stability per month	< 3% of reading/ 0.1 ppm/ < 1% of reading/month	RF Frequency and Power	860~930MHz, 14~20 dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Zero-point stability	0~0.15ppm	Protocol	LoRaWAN, class A, V1.0.3
Ambient pressure	101.3kPa ±10%	Data sending modes	Interval time and when the alarm occurred
Sensor life	2 years, in clean air	Configuration	via Downlink or Offline cable (software is free)
Working temperature	-10~50°C	RF Module	complies to ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Working humidity	15~90% RH	Working temperature	-40~60°C (with AA L91 Energizer®)

PRODUCT PAGE



LoRaWAN LIDAR PEOPLE COUNTER
WSLRW-LPC

WSLRW-LPC

LoRaWAN



LoRaWAN Lidar People Counter

Applications

Facility Monitoring, Safety Monitoring

WSLRW-LPC-H1.JPG

LoRaWAN communication

> 95% Accuracy

Distinguish people in and out

5-Year battery

SPECIFICATION

Sensor technology	Lidar	SF Factor	SF7~SF12
Gate height	2.2~4.0m	Antenna	Internal antenna 2.0dbi
Gate width	0.75~1.5m	Power Supply	6 x Batteries AA Type 1.5VDC (not included)
Detection cone	27°	RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Working temperature	-40~60°C	Protocol	LoRaWAN, class A
Working humidity	0~100% RH, non-condensing	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°C (with Lithium Ultimate AA battery)
		Dimensions	H120xW80xD45

PRODUCT PAGE



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SMART BATTERY PACK 120AH
SBP

SBP



Smart Battery Pack for Outdoor Installation

Applications

Powering LoRaWAN Gateway, IoT Gateway, Camera

Dual Power Input & Scalable Design

Rugged & Weatherproof for Harsh Environments

LiFePO₄ Battery Technology

Seamless IoT Integration

SPECIFICATION

Capacity	120AH x 12.8V (1536WH), 20AH x 12.8V (256WH). Connect multiple units to increase capacity.
Battery cells	High quality LiFePO ₄ cells
Power Inputs	2 independent inputs, 16-25V, max 150W in total
Max charging current	10A
Charging efficiency	96%
Charging temperature	0 .. + 45 oC
Discharging temperature	-20 .. + 60 oC
Power Input connectors	2 x M19 Male, 3-pin, allow daisy chain connection, come with 1m cable 12AWG and 1 pair of MC4 connector for Solar Panel connection
Battery cell balancing	Yes, passive type

PRODUCT PAGE



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PHMI

Panel mount Industrial IoT HMI

Applications

Multiple Connectivity

Multiple Protocols

Advanced IoT Functions

High-quality Display and Touch

SPECIFICATION

Standard Communication	01 x RS485, 01 x USB, 01 x RJ45 Ethernet
Optional Communication	WiFi, 4G or 5G, BLE, LoRaWAN Gateway, WS433 Sub-GHz Co-ordinator
Protocol support	ModbusRTU/ASCII, ModbusTCP, BacnetIP, OPC-UA, EthernetIP, MQTT, HTTP...
Screen type	10.1" 1290x800 colour IPS LCD Display with capacitive touch screen
Power supply	5VDC via USB type C port. Included power adapter with input of 100-240VAC and output USB type C 5VDC max 5A
Consumption	500mA avg.
Mounting type	Panel mount 246x165 mm cut-out, VESA mount screws
Working temperature/humidity	0..60 degC / 95%RH non-condensing
Dimension	H169xW250xD50

PRODUCT PAGE



PINEX



PineX Outdoor LoRaWAN Gateway

Applications

Condition Based Monitoring, Energy Monitoring, Facility Monitoring, Fuel Monitoring, Gas Leakage Detection, Machine Health Monitoring, Production Monitoring, Temperature Monitoring, Vibration...

Connect to any LoRaWAN sensors

Versatile built-in functions

Rugged design for extreme working environment

Multi-option for various applications

SPECIFICATION

LoRaWAN Specification	LoRaWAN 1.0.3	Standard Host Communication	Ethernet 100Mbps, via outdoor RJ45 connector
Frequency Band	Select 863~870MHz or 902~928MHz	Optional External Cellular Module	LTE Cat 4, supports multi-region and global bands as below
Number of Channels	Up to 8 concurrent channels for LoRa transmission		Frequency Bands for AU: LTE-FDD (B1/2/3/4/5/7/8/28) LTE-TDD (B40)
LoRa Transmit Power	0.5W (up to 27 dBm)		Frequency Bands for EU: LTE-FDD (B1/3/7/8/20/28A) LTE-TDD (B38/40/41)
LoRa Receive Sensitivity	Down to -139dBm@SF12, BW 125 kHz.		Frequency Bands for A: LTE-FDD (B2/4/12)
LoRa Software	Package Forwarder		Frequency Bands for Global: LTE-FDD (B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28) LTE-TDD (B38/39/40/41)
Advanced Software features	OpenVPN, built-in LoRaWAN Network Server & Node-RED, Cellular Internet Routing function, low-power, robust, aesthetic design	Optional GPS	GPS + GLONASS
		Antenna Type	Single/Dual LoRa antenna, optional 4G LTE internal/external antenna
		Power supply	12-24VDC via M12 port

PRODUCT PAGE





GWLRWEX

LoRaWAN Exd Design Gateway

[ATEX](#) [IECEX](#)

Applications

Condition Based Monitoring, Energy Monitoring, Facility Monitoring, Gas Leakage Detection, Machine Health Monitoring, Production Monitoring, Temperature Monitoring, Vibration Monitoring

Connect to any LoRaWAN sensors

Direct connection to PLC/SCADA/DCS

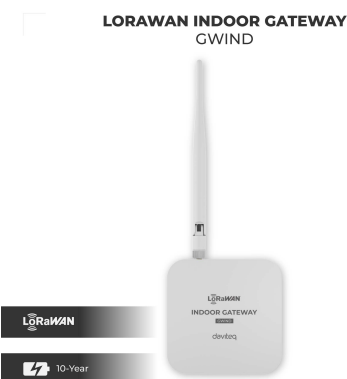
Support all Network Server Software

For Hazardous Zone 1 and 2

SPECIFICATION

LoRaWAN Specification	LoRaWAN 1.0.3, support for LoRaWAN Class A, Class C protocols	Standard communication	Ethernet 100Mbps, via outdoor RJ45 connector
Frequency Band	Select 863~870MHz or 902~928MHz	Optional 4G LTE	LTE Cat 4, Global bands
Number of Channels	Up to 8 concurrent channels for LoRa transmission		LTE FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28
LoRa Transmit Power	0.5W (up to 27 dBm)		LTE TDD: B38, B39, B40, B41
LoRa Receive Sensitivity	Down to -139dBm@SF12, BW 125 kHz.		UMTS: B1, B2, B4, B5, B6, B8, B19
Features	Dynamic data-rate adaptation (ADR)	Antenna Type	GSM: B2, B3, B5, B8
Software	LoRa Package forwarder, Chirpstack, OpenVPN, Node-red, SSH root access		1 x external LoRa antenna via N-type connector, 1 x External antenna for LTE via SMA connector
		Housing	Aluminum alloy, powder coated, IP67, Wall mount installation
		Certified Ex d	FTZU 03 ATEX 0207U, TÜV CY 18 ATEX 0206158 X, and IECEx FTZU 12.0017U, IECEx MSC 19.0001X

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GWIND

LoRaWAN Indoor Gateway

Applications

Automatic Ventilation System, Condition Based Monitoring, Energy Monitoring, Facility Monitoring, Fuel Monitoring, Gas Leakage Detection, Indoor Air Quality Monitor, Machine Health Monitoring, Odor Monitorin...

Connect to any LoRaWAN sensors

Various Internet connections

Support all Network Server Software

POE Feature

SPECIFICATION

LoRaWAN Specification	LoRaWAN 1.0.3	Standard Interfaces	1 WAN RJ45 10/ 100Mbps (w/ passive PoE capability), 1 SIM card slot (2FF), 1 DC jack in/ 1 terminal block
Frequency Band	Select 863~870MHz/ 902~928MHz	Optional Wi-Fi	802.11b/g/n, 1x1, 2.4GHz
Number of Channels	Up to 8 concurrent channels for LoRa transmission	Optional 4G LTE	LTE Cat 4 or Cat M1/NB2
LoRa Transmit Power	0.5W (up to 27 dBm)	Antenna Type	1 x external LoRa antenna, and option antennas are 1 x External antenna for LTE, 1 x external Wi-Fi antenna
LoRa Receive Sensitivity	Down to -142 dBm (conducted)	Operating Temperature	-10~55°C
LoRa Software	Standard and LRR Actility	Storage Temperature	-20~60°C
		Power Supply	DC 12 V/1.5 A-Power Adaptor/ DC 10~30V 3-Pin Connector Power supply/ Passive PoE 10~30V
		Housing	Profile Aluminum, IP20
		Dimensions	L:122 x W:135 x H:36mm

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OUTDOOR LoRaWAN GATEWAY
GWLRW

GWLRW

LoRaWAN



daviteq



GWLRW-H1.JPG

LoRaWAN Outdoor Gateway

Applications

Condition Based Monitoring, Energy Monitoring, Facility Monitoring, Fuel Monitoring, Gas Leakage Detection, Machine Health Monitoring, Production Monitoring, Temperature Monitoring, Vibration...

Connect to any LoRaWAN sensors

Easy remote diagnostic and configuration

Support all Network Server Software

For Outdoor Installation

SPECIFICATION

LoRaWAN Specification	LoRaWAN 1.0.3	Standard communication	Ethernet 100Mbps, via outdoor RJ45 connector
Frequency Band	Select 863~870MHz or 902~928MHz	Optional 4G LTE	LTE Cat 4, supports multi-region and global bands as below
Number of Channels	Up to 8 concurrent channels for LoRa transmission		Frequency Bands for AU: LTE-FDD (B1/2/3/4/5/7/8/28) LTE-TDD (B40)
LoRa Transmit Power	0.5W (up to 27 dBm)		Frequency Bands for EU: LTE-FDD (B1/3/7/8/20/28A) LTE-TDD (B38/40/41)
LoRa Receive Sensitivity	Down to -139dBm@SF12, BW 125 kHz.		Frequency Bands for A: LTE-FDD (B2/4/12)
LoRa Software	Standard and LRR Activity		Frequency Bands for Global: LTE-FDD (B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28) LTE-TDD (B38/39/40/41)
Advanced features	VPN connection, Low-power design	Optional GPS	GPS + GLONASS
		Antenna Type	1 x external LoRa antenna, 1 x External antenna for LTE
		Housing	Cast Aluminum, IP66, can withstand Wind speeds up to 160 Km/h

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