

LoRaWAN Laser Level Sensor



Smart Agriculture, Smart Farm

SKU: WSLRW-LSL

LoRaWAN LASER LEVEL SENSOR WSLRW-LSL



WSLRW-LSL-H1.JPG

Safe Zone

Hazardous Zones

WSLRW-LSL is a low-power laser level sensor for Solid level measurement. With a dust tube accessory, it can be used in high dust environments like cement, grain, powder... It can measure up to 100m range. With Ultra-low-power design and smart firmware allow the sensor can last up to 10 years with a single battery D size 3.6V (depends on configuration). The sensor will transmit data in the kilometers distance to LoRaWAN gateway, any brand on the market.

The WSLRW-LSL can be used to measure level in Tank, Silo, or any non-dark surface.

Applications

Level Monitoring, Process Monitoring

Notes For Applications

- LoRaWAN communication**
LoRaWAN communication standard to allow sensor connect to any LoRaWAN Gateway on the market.
- 10-Year battery**
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology allow the sensor can last up to 10 years with a single D size battery.
- High Accuracy & Stable**
Sensor protection tube allow stable working in dust environment
- Dust Protection**
Dust tube design and Pneumatic lens cleaning port

INSTALLED ON STEEL GRAIN SILOSOR



WSLRW-LSL-H2.JPG

DAVITEQ TECHNOLOGIES INC

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Specification

Sensor technology	Eye-safe laser level sensor, class II laser
Measurement range	Select 50, 100m (bright color surface in dark environment)
Dead zone	0.03 m
Resolution	1.0 mm
Accuracy	±5.0 mm
Dust tube	Yes, standard
Air cleaning port	OD 6mm tube quick connector, max 0.5 barg clean & dry air.
Process connection	standard equivalent to 80A JIS 10K flange (the thickness is smaller)
Process temperature	-10~60°C standard
Process pressure	atmosphere pressure ±20%
Ambient working temperature	-10~60°C
Ambient working humidity	0~95% RH, non-condensing
COMMUNICATION	
SF Factors	SF7~SF12
Antenna	External Antenna 2.0 dBi
Battery	1 x D size 3.6VDC (battery not included)
RF Frequency and Power	860~930MHz, 14~20dBm, configurable for zones: EU868, IN865, RU864, KR920, AS923, AU915, US915
Protocol	LoRaWAN, class A
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	-10~60°C (with SAFT LS33600 battery)
Dimensions	220x220x450 (without antenna)
Net-weight	< 5kg
Housing	Aluminum, IP67

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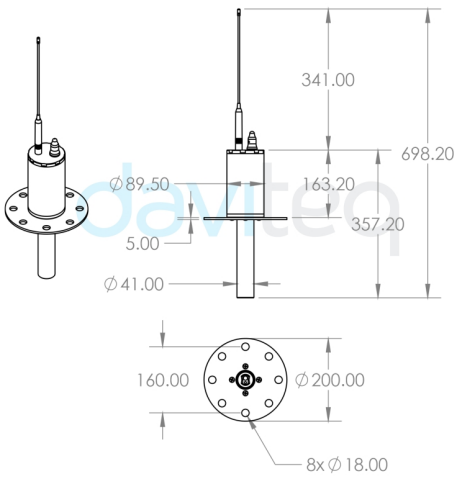
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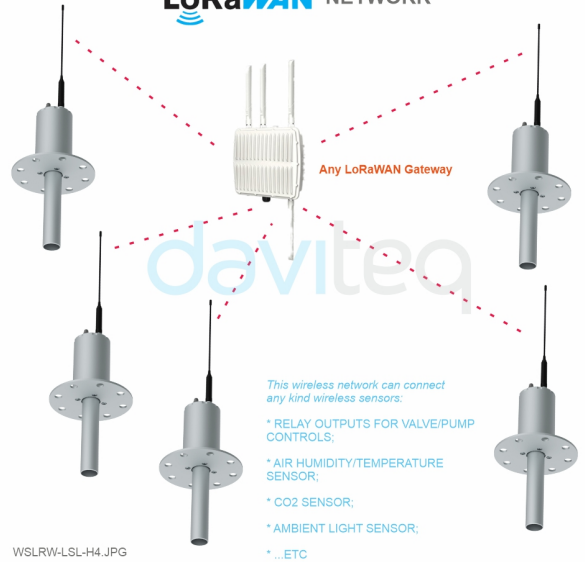
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DIMENSION DRAWING OF SENSOR NODE
(Unit: mm)



WSLRW-LSL-H3.JPG

LoRaWAN NETWORK



WSLRW-LSL-H4.JPG

RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

E91 AA Alkaline battery



-18 .. + 60 oC working temperature
10-year shelf life
3000 mAh Capacity
Price: 1X

L91 AA Lithium battery



-40 .. + 60 oC working temperature
20-year shelf life
3500 mAh Capacity
Price: 3.5X

WSLRW-AG-H8.JPG

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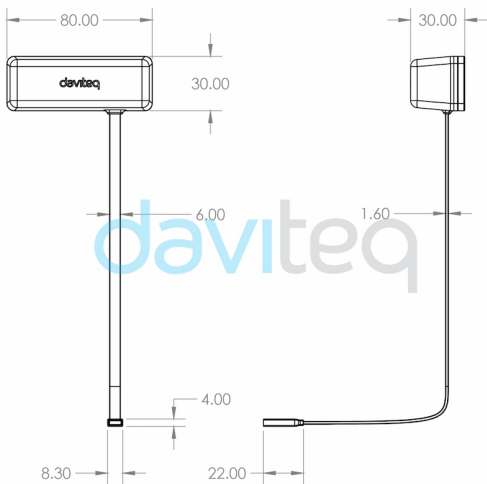
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3500 mAh Capacity
Price: 3.5X

WSLRW-AG-H8.JPG

DIMENSION DRAWING OF SENSOR NODE



WSLRW-S-ATE-H7.PNG

RECOMMENDED BATTERIES FOR LoRaWAN SENSOR

LS 14500 Lithium battery



-60°C..+85°C working temperature
Low self-discharge rate
2.6 Ah Capacity


WSLRW-S-ATE-H8.PNG

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Ordering Information

ITEM CODE	DESCRIPTIONS
WSLRW-LSL-50	LORAWAN LASER LEVEL SENSOR, RANGE 50M, EQUIVALENT 80A JIS10K FLANGE, DUST TUBE, IP67, D SIZE BATTERY POWERED
WSLRW-LSL-100	LORAWAN LASER LEVEL SENSOR, RANGE 100M, EQUIVALENT 80A JIS10K FLANGE, DUST TUBE, IP67, D SIZE BATTERY POWERED

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