

daviteq WSLRW-CAP10 Lorawan Precision Fuel Level Sensor Instructions

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daviteq WSLRW-CAP10 Lorawan Precision Fuel Level Sensor



LORAWAN PRECISION FUEL LEVEL SENSOR

The WSLRW-CAP10 is a LoRaWAN fuel level sensor that utilizes the 10-year experience of Daviteq in digital capacitance measuring technique. It delivers high accuracy and stability with 0.1% of span. Ultra-low power design and smart firmware allow the complete Wireless and Sensor package to run on 2 x AA battery 1.5V for 2-5 years with 15 minutes updates. The sensor will transmit data in kilo-meters distance to LoRaWAN gateway, any brands on the market.

Specifications

- **Measurement Range (mm):** Standard Range: 700, 1000, 1500, can be extended up to 4000
- **Accuracy / Resolution / Repeatability**
- **Thermal drift**
- **Connector:** M12 male, 4-pin, Coding A
- **Sensor MTBF:** More than 10 years
- **Sensor wetted materials:** Aluminum and engineering plastic
- **Sensor rating:** IP67, outdoor
- **Certification:** CE-Marking per EN61236-1 (with test report)
- **Standard accessories:** Filter footer, flange, gasket, o-ring, self-tapping screws
- **Data rate:** 625bps .. 50kbps (with internal Antenna 2.67 dbi)
- **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
- **RF Module complies to:** ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
- **Working temperature:**
- **Dimensions and Net-weight:** H140xW73xD42, 250 grams (LoRaWAN Device only)
- **Housing:** Polycarbonate and Aluminum (wall mount bracket included), IP67
- **Sensor cable:** 2m sensor cable with M12-male connector

Product Usage Instructions

The WSLRW-CAP10 LoRaWAN fuel level sensor is designed for monitoring fuel level and fuel consumption in fuel tanks of Genset, Boiler, Heavy equipment or machinery. It is applicable for many kinds of fluids such as diesel, bio-diesel, vegetable oil, or any low viscosity nonconductive liquids. The installation process is made easy with its smart design for easy installation & maximum protection. The sensor can be connected to any LoRaWAN Gateway on the market using LoRaWAN communication standard. The sensor operates on 2 x AA battery 1.5V for 2-5 years with 15 minutes updates. The sensor can transmit data up to kilo-meters distance to LoRaWAN gateway.

In order to use the sensor, follow the below instructions:

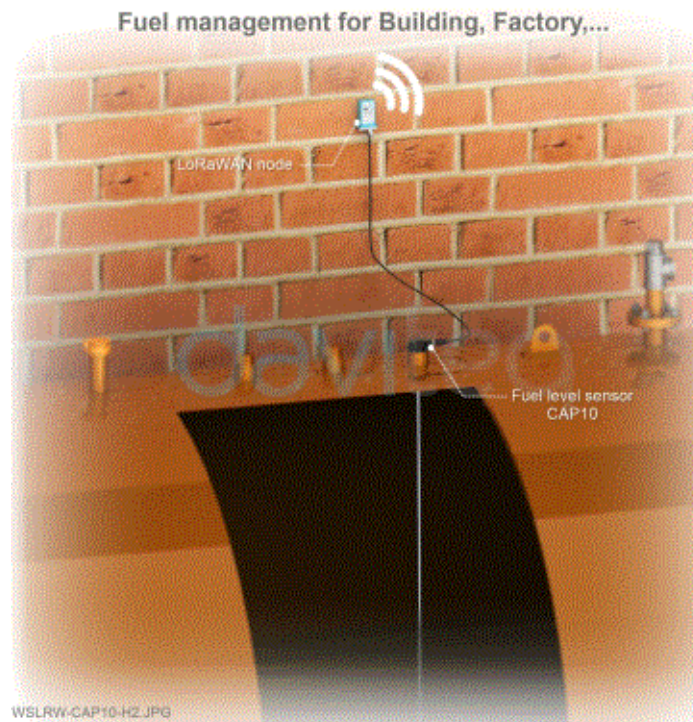
1. Install the sensor in the fuel tank using the standard accessories provided with the product.
2. Connect the sensor to any LoRaWAN Gateway on the market using LoRaWAN communication standard.
3. Insert 2 x AA battery 1.5V in the sensor.
4. The sensor will start transmitting data in kilo-meters distance to LoRaWAN gateway automatically at a

predefined time interval or when alarm occurred.

SKU: WSLRW-CAP10



WSLRW-CAP10 is a LoRaWAN fuel level sensor that utilizes the 10-year experience of Daviteq in digital capacitance measuring technique. It delivers high accuracy and stability with 0.1% of span. Ultra-low power design and smart firmware allow the complete Wireless and Sensor package to run on 2x AA battery 1.5V for 2-5 years with 15 minutes updates. The sensor will transmit data in kilo-meters distance to the LoRaWAN gateway, any brands on the market. Typical Applications: Monitoring fuel level and fuel consumption in fuel tanks of Genset, Boiler, Heavy equipment or machinery...



- **LORAWAN COMMUNICATION**

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

- **ULTRA-LOW POWER WITH 5 YEARS BATTERY**

Ultra-low power sensing technology from Daviteq with Ultralow power wireless technology allow the sensor can last up to 5 years with 02 x AA batteries

- **APPLICABLE FOR MANY KINDS OF FLUIDS**

Diesel, bio-diesel, vegetable oil, or any low viscosity nonconductive liquids

- **EASY TO INSTALL**

Smart design for easy installation & maximum protection

SPECIFICATION

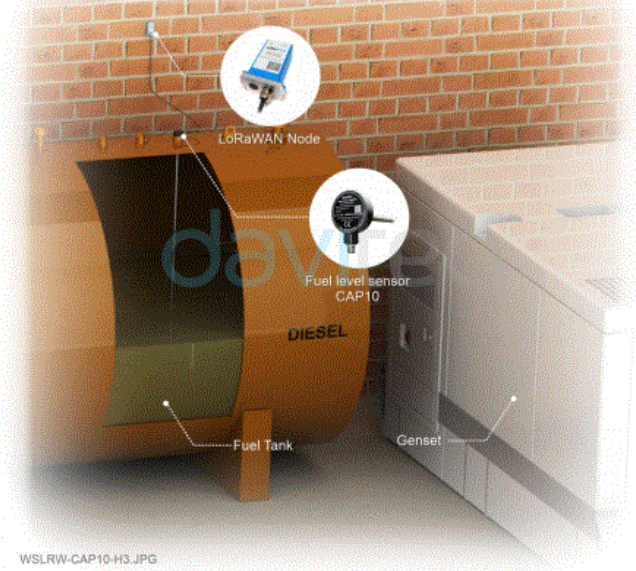
SENSORS SPECIFICATION

- **Measurement Range (mm) Standard Range:** 700, 1000, 1500, can be extended up to 4000
- **Accuracy / Resolution / Repeatability** $\pm 0.1\%$ of Span / 0.1% / $\pm 0.1\%$ of span
- **Thermal drift** $< +0.03\%$ of span per 10°C
- **Connector** M12 male, 4-pin, Coding A
- **Sensor MTBF** More than 10 years
- **Sensor wetted materials** Aluminum and engineering plastic
- **Operating Temperature & Humidity Range** -40 to 85°C , 0-100% RH
- **Sensor rating** IP67, outdoor
- **Certification** CE-Marking per EN61236-1 (with test report)
- **Standard accessories** Filter footer, flange, gasket, o-ring, self-tapping screws

LoRaWAN SPECIFICATION:

- **Data rate** 625bps .. 50kbps (with internal Antenna 2.67 dbi)
- **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
- **RF Module complies to** ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
- **Working temperature** $-40^{\circ}\text{C}..+60^{\circ}\text{C}$ (using Energizer Lithium Ultimate AA battery)
- **Dimensions and Net-weight** H140xW73xD42, 250 grams (LoRaWAN Device only)
- **Housing** Polycarbonate and Aluminum (wall mount bracket included), IP67
- **Sensor cable** 2m sensor cable with M12-male connector

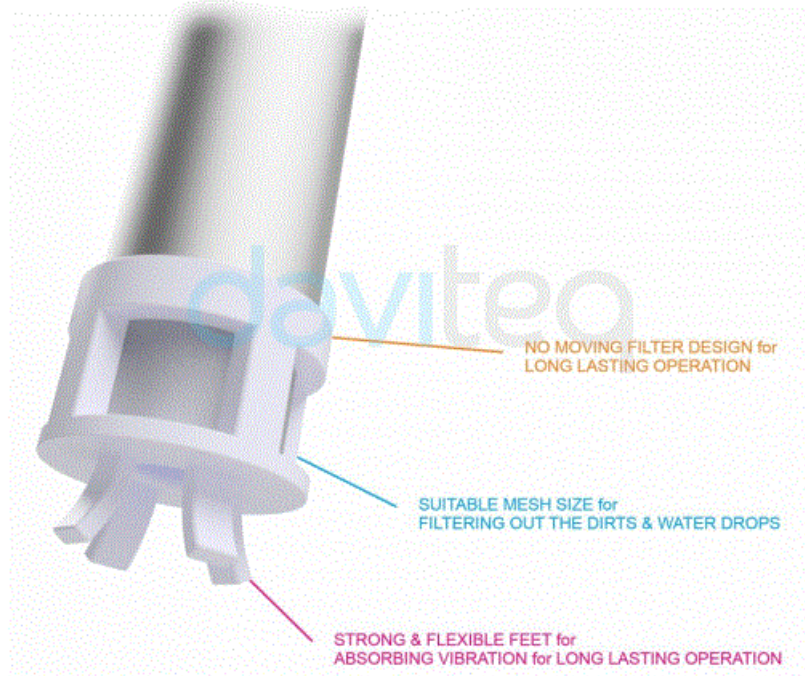
Monitoring fuel level and fuel consumption in fuel tanks of Genset, Boiler, ...



LoRaWAN NETWORK



Smart filtered footer for stable measuring

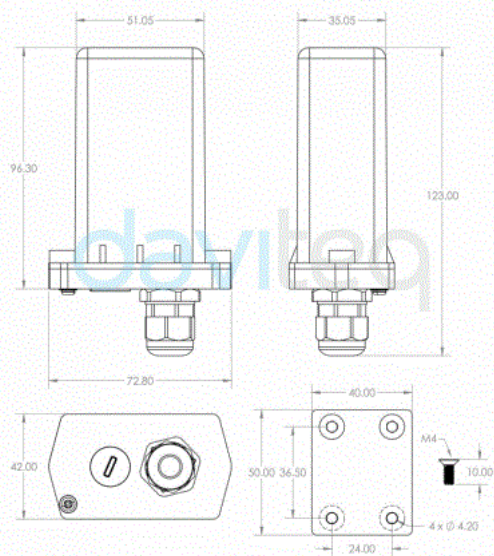


PulseCAPIO Package includes

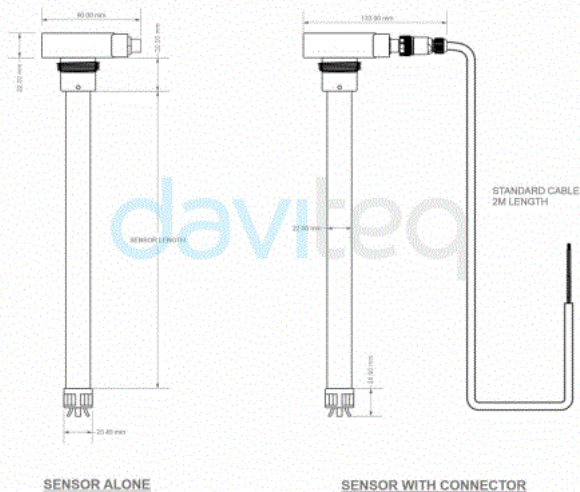


DIMENSIONS

DIMENSION DRAWING OF WIRELESS NODE
(Unit: mm)



DIMENSION DRAWING OF FUEL SENSOR
(Unit: mm)



ORDERING INFORMATION

ITEM CODE	DESCRIPTIONS
WSLRW-CAP10-9-1500	LORAWAN HIGH PRECISION CAPACITANCE FUEL LEVEL SENSOR FOR DIESEL OIL, VEGETABLE OIL, LUBRICANT, 1500MM, FIELD CUTTABLE, INTERNAL ANTENNA, TYPE AA BATTERY 1.5VDC, IP67, 900-930 Mhz for KR920, AS923, AU915, US915
WSLRW-CAP10-8-1500	LORAWAN HIGH PRECISION CAPACITANCE FUEL LEVEL SENSOR FOR DIESEL OIL, VEGETABLE OIL, LUBRICANT, 1500MM, FIELD CUTTABLE, INTERNAL ANTENNA, TYPE AA BATTERY 1.5VDC, IP67, 860-870 Mhz for EU868, IN865, RU864
TTL-LRW-USB-01	CONFIGURATION CABLE FOR LORAWAN OR SIGFOX SENSOR, TTL, USB
CAP10PROEXT0700	CAP10 PROBE EXTENSION LENGTH 700 MM
CAP10PROEXT1000	CAP10 PROBE EXTENSION LENGTH 1000 MM
CAP10PROEXT1500	CAP10 PROBE EXTENSION LENGTH 1500 MM


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Documents / Resources

	<p>daviteq WSLRW-CAP10 Lorawan Precision Fuel Level Sensor [pdf] Instructions</p> <p>WSLRW-CAP10 Lorawan Precision Fuel Level Sensor, WSLRW-CAP10, Lorawan Precision Fuel Level Sensor, Precision Fuel Level Sensor, Fuel Level Sensor, Level Sensor, Sensor</p>
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References

-  [Daviteq – Nhà sản xuất cảm biến đo lường và hệ thống IoT](#)
-  [TCPDF](#)