



LTE (CAT-M1/NB-IoT) Pressure Monitor (ATEX and C1/D1 approvals)

Supplied with a pressure level sensor, the battery powered intrinsically safe liquid level logger is suitable for monitoring tank levels.

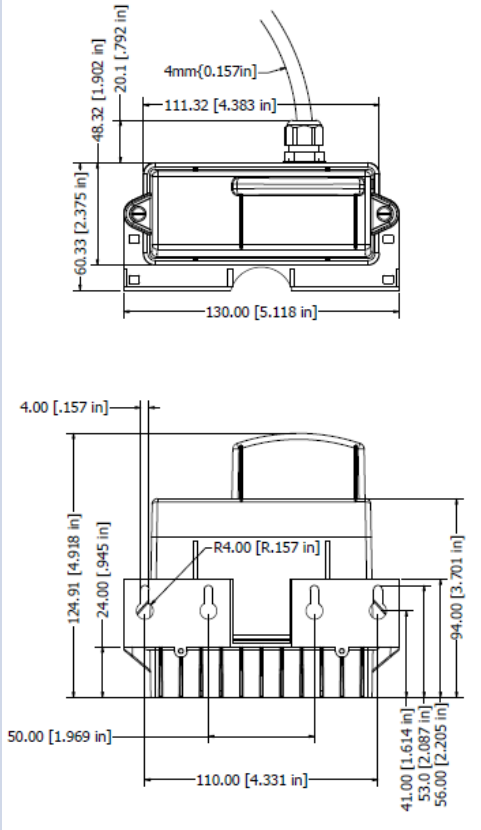
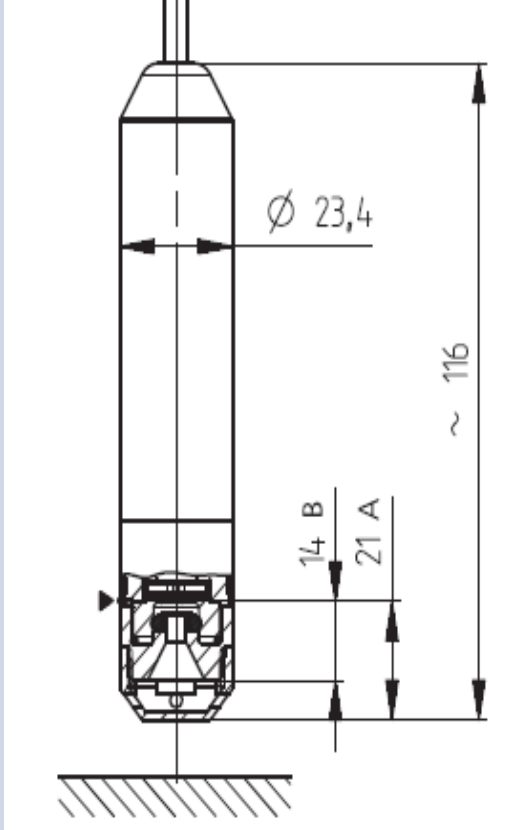
Applications

- Liquid Level Pressure sensor
 - Fuel (Gasoline, Diesel, Kerosene, other).
 - Oil and waste oil, lubricants, coolants, additives
 - Water, chemicals (subject to compatibility)
- Tanks
 - Fixed or mobile
 - Underground
- Spot and continuous inventory measurement

Benefits

- Accurate, reliable tank level reporting to server monitoring application
- Highly configurable server reporting interval from hourly to once per month
- 28 slot logger with configurable logging interval
- Optimise delivery or collections
- Programmable Alarms
 - High level
 - Low levels
 - Rate of level change (fill or drain)
- Reports local temperature, radio signal strength, and battery level
- External antenna option for underground locations
- Remote re-configurability
- Plug and play installation
- Mounting/attachment options – wall/pole
- International compliance.



Characteristics	Liquid level logger 4G LTE-M	Pressure sensor
Dimensions	 <p>Technical drawings of the liquid level logger. The top view shows a rectangular device with a cable attached. Dimensions include a cable diameter of 4mm (0.157 in), a mounting hole diameter of 20.1 (0.792 in), a distance from the cable to the edge of 48.32 (1.902 in), a total width of 111.32 (4.383 in), a depth of 60.33 (2.375 in), and a total length of 130.00 (5.118 in). The side view shows a cylindrical body with a diameter of 41.00 (1.614 in) and a total height of 110.00 (4.331 in). Other dimensions include a top diameter of 124.91 (4.918 in), a distance from the top to the sensor of 24.00 (0.945 in), a radius of R4.00 (R.157 in), a distance from the bottom to the sensor of 50.00 (1.969 in), and a distance from the bottom to the top of the sensor of 94.00 (3.701 in). Additional dimensions at the bottom are 53.0 (2.087 in) and 56.00 (2.205 in).</p>	 <p>Technical drawing of the pressure sensor showing a side view. The diameter is $\varnothing 23,4$ mm. The total height is approximately 116 mm. The distance from the bottom to the sensor is 14 mm (0.551 in), and the distance from the bottom to the top of the sensor is 21 mm (0.827 in).</p>
Safety IECEX/ATEX	Ex ia IIB T4 Ga Class I zone 0 AEx ia IIB T4 Ga Complies with UL913 II 1 G-Ex ia IIB T4 Ga [-30 < Ta < +55°C] SIRA15ATEX2103 X IECEX CSA 15.0006X	SEV 12 ATEX 0138 II 1 G Ex ia IIC T4 Ga IECEX SEV 12.0006 Ex ia IIC T4 Ga Complies with UL913, Class 1, Zone 0
Operating Temperature	-30°C to +55°C / -22°F to 131°F	-20°C to 80°C / -4°F to 176°F
Recommended Storage Temperature. Note 2	0°C to 30°C / 32°F to 86°F	0°C to 30°C / 32°F to 86°F
Sensor Range	Sensor - 1 bar / 14.5 psi, suitable for measuring up to 10.2m/33.4ft of water / 12.4m/40.6ft of kerosene. Cable lengths are 5m(16.4ft), 10m(32.8ft), 15m(49.2ft) as standard. For custom lengths please consult factory. Note 1	
Environmental Protection	IP68 - Outdoors	IP68 - Outdoors
Communication	LTE CAT-M1 or NB-IoT with GPS	
Installation	Plug and play installation. Can be shipped pre-configured with SIM including connectivity for 3 years	

Note 1 : When selecting the required pressure sensor cable length ; please also consider the LTE logger desired mounting location. If the tank height is similar to the length of the cable, then there may be insufficient cable available to install the LTE logger in the desired location.

Note 2 : To maintain optimum battery health during storage

Characteristics	Liquid level logger 4G LTE-M	Pressure sensor
Power requirements	Battery pack installed with a 2 wire harness included.	5V +/- 10% DC (Powered by Logger)
Battery technology	3.6V Lithium Thionyl Chloride Exi "Bobbin type" construction	N/A
Housing Material	Moulded plastic, 2-part, material Glass Reinforced Polyamide, UV resistant.	PD-HD Cable, SS 316L housing, EPDM seal
Weight	Product weight with 5m,10m,15m cable length :1045g/37oz ; 1150g/40oz ; 1255g / 44oz (including cable & gland/external adapters)	
Resolution	N/A	0.5% of FS (Note 1)
Accuracy	N/A	Max : +/- 2% of FS : Typical +/- 1% of FS. -20°C to 55°C / -4°F to 131°F
Battery life	Up to 10 years (Note 2)	N/A
Manual Activation	Magnetically activated reed switch / Audible buzzer / Internal LED	N/A
Humidity	0 – 100% RH	0% - 100% RH
Certification	PTCRB, AT&T & Verizon approvals, RED, FCC, CE, RoHS, ATEX, IECEX, Complies to UL913 C1 D1	ATEX, IECEX, CE, (Note 3) EN 61326-2-3, EN 61010-1, EMC directive 2014/30/EU,

Operation

The intrinsically safe Exi pressure sensor provides a ratiometric output in the range of 0.5V...4.5V for a 5V input. An NPT 1" / 25.4mm adapter with a cable gland cord grip is provided on the cable to facilitate installation of the sensor. 0.3 bar / 5m cable provided as standard. Other options available on request. Please refer to the installation manual for advice on how to install pressure sensor for best performance.

Configuration/Specification Options

External connection	IP68 Cable gland
Antenna	Internal with option for antenna coupler with SMA connector to allow connection of an external GSM antenna
Data Communications	Customised for efficient binary protocol
Fixing/Mounting	Screw mounts, tie wrap, & pole mount features are standard.

Note 1: Note: FS (Full scale) of rated pressure.

Note 2: Based on 1 communication per day and good network coverage

Note 3: The pressure probe electronic ground is referenced to the metal casing of the probe. Equipotential grounding is recommended for battery powered floating systems. An earth connection should be made from the logger unit 0V reference to the body of the metal tank being monitored by the pressure probe – refer to the installation guide for further details.