



LTE Pressure Logger (4G NB-IoT/CAT-M1) Installation Guide

Thank you for purchasing the Tekelek Pressure Logger 4G NB-IoT/CAT-M1 which is an ATEX certified multipurpose data logger which communicates data to a remote server, suitable for monitoring fuel tanks levels and flow rates.



Safety Information:

The Pressure Logger is ATEX compliant, but if installing in a harsh, environment first check local applicable regulatory and safety guidelines to ensure installer security. Please refer to the User Manual for more information on the warnings and hazards.

STEP 1: Installation

The PRESSURE Logger works in conjunction with a remote server and before installation must first be registered to this. Access to the backend server is required to verify that the unit has correctly joined the network. The following outlines the Pressure Logger mounting options. It is recommended to mount the logger vertically as shown above.

- **Cable Ties – Handle mount:**



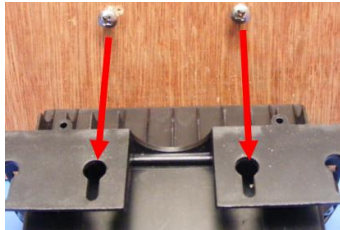
- **Cable Ties – Horizontal mount onto pipe:**



- **Cable Ties – Vertical mount onto pipe:**



- **Screws – Wall mount:**



- **Screws – Wall mounted from the rear:**



- The pressure sensor cable should be installed in an orientation facing downwards.



STEP 2: Activation

Hold the supplied magnet to the indicated hot spot on the Pressure Logger, 4 short beeps will be heard approx. one second apart, these will be followed by a long beep which indicates that the logger has been activated and will now attempt to connect to the network.



- A series of beeps will be heard. This indicates the logger is registering onto the network.
- Upon successful registration to the network the logger will attempt to initiate a connection to the server, details of which have been preconfigured in the logger. This is indicated by higher pitched beeping.
- The successful activation of the unit is indicated by two successive short beeps two seconds apart. Once the logger has successfully connected, the server must issue the required commands to the logger to complete the activation process.

STEP 3: Beep Pattern

Beep Pattern	Definition
Low beep once per second	Network Registration
High beep once per second	Network Registration
Low beep once every 4 seconds	Network / TCP Listen
Low beep once every 2 seconds	Re-establish Network / TCP
High / Low combination beep	Incoming Data
Low / High combination beep	Outgoing Data
Low double-beep every 4 seconds	Network Listen (Data Received & Unit Active)
Low double-beep every 2 seconds	Re-establish Network
High double-beep every 4 seconds	TCP Listen (Data Received & Unit Active)
High double-beep every 2 seconds	Re-establish TCP

STEP 4: Fitting Pressure Sensor

- A 1" or 2" opening is required to fit the pressure gauge. In the example shown a 2" NPT opening is assumed. Note: other adapter types are possible - consult factory for further options.



- Insert the 2" to 1" NPT adapter. Ensure that it is rightly sealed and watertight. PTFE tape can be used to ensure a good seal.



- The Pressure logger sensor comes fitted with a 1" NPT adapter and a 1/2" NPT cord grip cable adapter. The pressure sensor fits through the 1" opening and is placed into the tank.



- The 1" adapter is tightened into the 2" adapter and the pressure sensor lead fed into the tank until the bottom of the sensor is positioned approximately 50mm above the bottom of the tank. The cable grip is tightened (torque 1-8 to 2Nm) around the cable to hold it in position.



- A connection to the chassis 'ground' of the tank is recommended for equipotential grounding for ATEX applications. An M4 stud connection is provided ; with an M4 nut and washer to facilitate a Connection.



- The logger has a vent plug to equalise the internal pressure in the enclosure to the external ambient conditions. For correct operation of the pressure probe, this vent should not be blocked by immersion in liquids etc.



An additional application note 9-6111-xx and some instructional videos can be found on www.tekelek.ie.

For more information on the Tekelek Pressure Logger 4G NB-IoT/CAT-M1 please visit our website www.tekelek.ie where a link to our YouTube page can also be found.