

INSTALLATION INSTRUCTIONS

FOZMULA
INNOVATION IN SENSORS



TLL15x Fuel Level Sensor Cutting-to-length and calibrating

Thank you for purchasing the Fozmula TLL15x Capacitance Type Liquid Level Sensor.

Please read the instructions below if cutting or recalibrating the sensor to ensure trouble free installation.

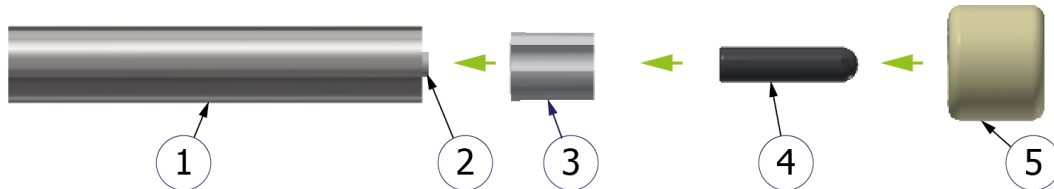
You can also find an instructional video on the [Fozmula website](#) or the [Fozmula YouTube Channel](#)

ALL MODIFICATION AND TESTING SHOULD BE CARRIED OUT BY A COMPETENT ENGINEER.

INSTALLATION INSTRUCTIONS

1. Cut the sensor to length.

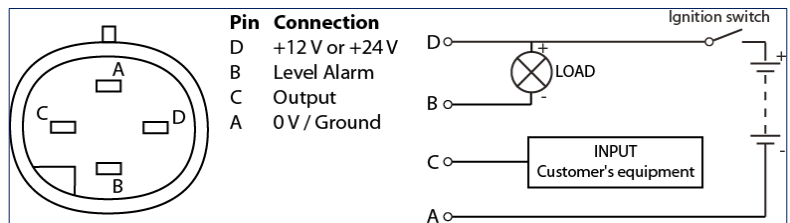
- 1.1. Measure the depth of your tank and mark the outer tube (1) at your desired length -5mm to allow for the end cap (5). The sensor should not touch the base of the tank and not be shorter than 200mm. If mounting using the tapered thread, please note the gauge plane is 12mm from the top of the thread.
- 1.2. Place the outer tube ① securely in a bench mounted vice, making sure not to over tighten and damage the tube.



- 1.3. Using a **sharp** pipe cutter suitable for stainless steel, cut the tube ① and remove to expose the inner rod ②.
- 1.4. Push the supplied spacing bush ③ onto the rod ② and into the outer tube ①.
- 1.5. Ensuring the inner rod is secured within the vice and the sensor is supported, cut the exposed inner rod ② flush against the end of the outer tube. Note: For best results use metal cutters or a fine-toothed hacksaw. Ensure the inner rod ② does not rotate when cutting.
- 1.6. Check the rod for any burrs or sharp edges and remove, if necessary, using a suitable small file. Remove any swarf.
- 1.7. Push the supplied rubber end cap ④ securely onto the inner rod ②.
- 1.8. Place the outer rod into a vice and place the supplied end cap ⑤ onto the bottom of the Stainless-steel tube ①.
- 1.9. Lightly tap on the end cap ⑤ to ensure it is secured in position and will not come off.

2. Calibrate the empty point of the sensor.

- 2.1. Start with the sensor disconnected from power.
- 2.2. Either in air, for the minimum empty level, or in fuel at the required level.
- 2.3. Press firmly and hold the 'CAL' button on the top of the sensor, then reconnect or switch on the power supply.
- 2.4. Hold for **10** seconds, then release the 'CAL' button.
- 2.5. Your sensor empty point will now be calibrated.



1. Calibrate the full point of the sensor.

- 1.1. Install the sensor in the tank and connect it to your power supply.
- 1.2. Using the fuel intended for your application fill your tank to the full level required. The maximum full point is the top breather hole in the sensor tube.
- 1.3. Ensure you allow a few seconds for the fuel to settle at the full point.
- 1.4. Press and hold the 'CAL' button firmly for **10** seconds then release.
- 1.5. Your sensor full point will now be calibrated.



The sensor is now fully calibrated and should be checked with a suitable gauge or multi-meter whilst the power is on.