Thank you for purchasing the Fozmula TLL150 Capacitance 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

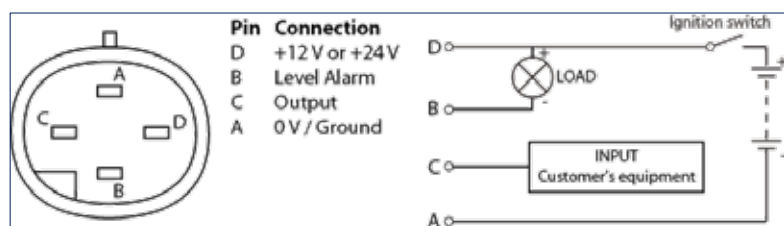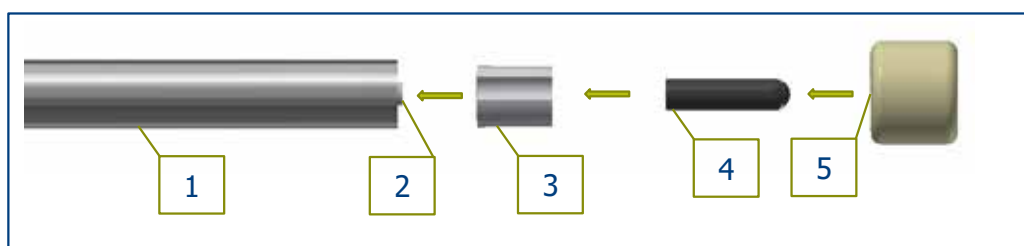### Stage 1 – Cutting the sensor to length
1. Measure your application and mark the outer tube (1) at your desired length -5mm to allow for the end cap (5). The sensor should not touch the base of the tank and not be shorter than 200mm. If mounting using the tapered thread, please note the gauge plane is 12mm from the top of the thread.
2. Place the outer tube (1) securely in a bench mounted vice, making sure not to over tighten and damage.
3. Using a **sharp** pipe cutter suitable for Stainless steel, cut the tube (1) and remove to expose the inner rod (2).
4. Push the supplied spacing bush (3) onto the rod (2) and into the outer tube (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.
6. Check the rod for any burrs or sharp edges and remove, if necessary, using a suitable small file.
7. Push the supplied rubber end cap (4) securely onto the inner rod (2).
8. Place the outer rod into a vice and place the supplied end cap (5) onto the bottom of the Stainless steel tube (1).
9. Lightly tap on the end cap (5) to ensure it is secured in position and will not come off.

Stage 2 – Calibrating the empty point of the sensor
1. Ensure your power supply is off. Connect the dry sensor to your power supply.
2. Press firmly and hold the 'CAL' button on the top of the sensor, then turn on the power supply.
3. Hold for 10 seconds, then release the 'CAL' button.
4. Your sensor empty fluid point will now be calibrated.

Stage 3 – Calibrating the full point of the sensor
1. Fill your tank to the maximum liquid level required.
2. With the sensor still powered on, insert it into your tank ensuring it is fully submerged at its maximum point in your tank. Please note, the maximum this can be is the top breather hole in the sensor tube.
3. Once you are certain the product is fully submerged to your desired level, press and hold the "CAL" button firmly for 10 seconds then release.
4. The sensor is now fully calibrated and should be checked with a suitable gauge or multi-meter whilst the power is on.

Pin	Connection
D	+12 V or +24 V
B	Level Alarm
C	Output
A	0 V / Ground