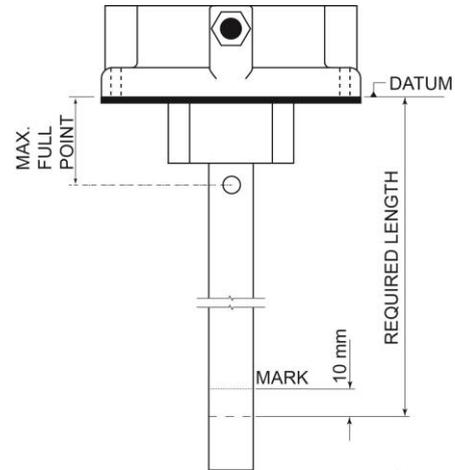


### Stage 1 – Cutting the sensor to length

- a. Measuring from the Datum, mark the steel sensor tube at the required length for your application less 10mm (see diagram).

**Notes:**

- i. It is not recommended to shorten the sensor tube to less than 200 mm.
- ii. Always leave at least 10 mm clearance between the end of the sensor tube and the bottom of the tank.



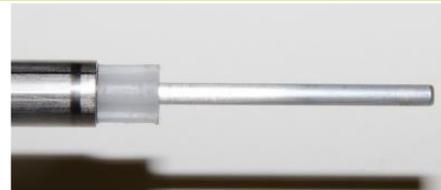
- b. Place the sensor into a vice ensuring soft jaws are used to protect the sensor tube from damage.
- c. Using a tube cutter; cut the steel sensor tube at the point marked. When using the cutting tool, adjust cutting blade slowly to prevent the outer tube being crushed.



- d. To free the centre rod from its end plug, carefully twist and pull the cut end from the sensor. Once outer tube is cut, you should be left with an exposed aluminium inner rod (see picture). (Discard the excess tube).



- e. To ensure that the inner rod is located centrally in the outer tube; slide the white spacer over the exposed aluminium rod and insert it fully into the sensor tube.



- f. Using a pair of cutters or a fine toothed hacksaw carefully cut the centre aluminium rod. Ensure that this inner rod does **not** rotate as this could damage the Sensor unit beyond repair. (Discard the excess aluminium rod).



- g. Once cut, attach the black end cap provided.

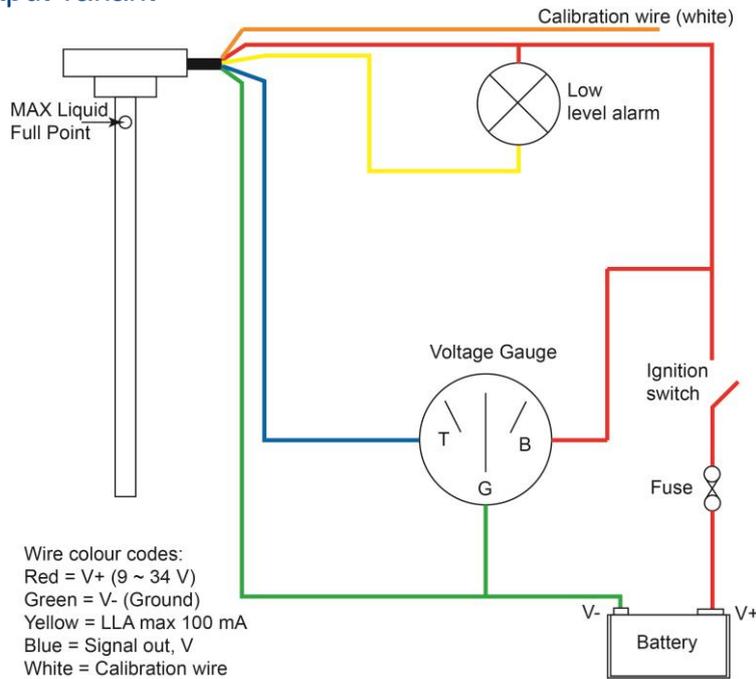


## T/LL14x Fuel Level Sensor Cut to length & Calibration Instructions

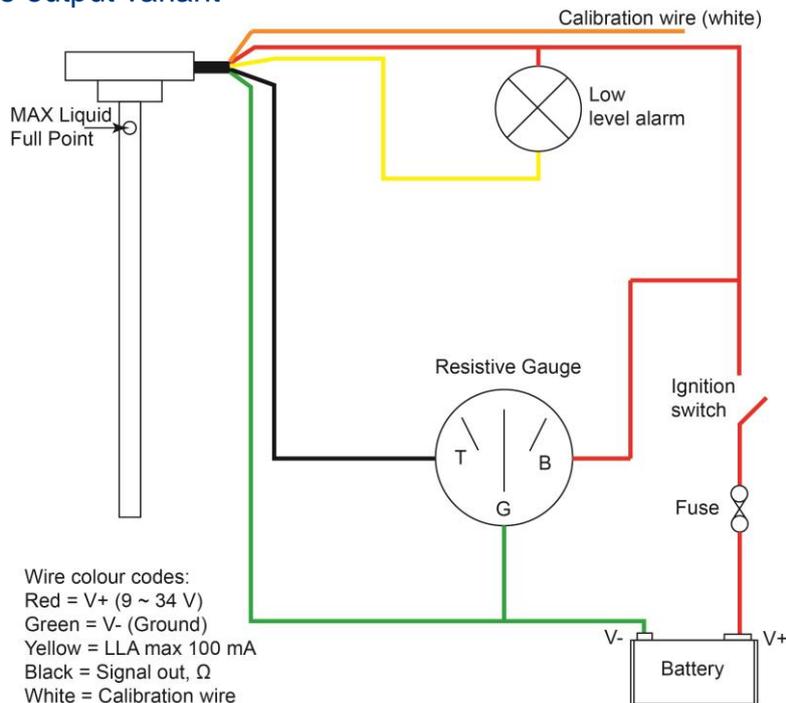
### Stage 2 – Checking the wiring configuration

h. Ideally, the sensor output wire (blue or black) should be connected to a gauge or voltmeter while the calibration procedure is performed. You'll then be able to see the sensor output change as the calibration procedure is followed. After calibration, the sensor can be drawn in and out of the fuel and the sweep of the output observed on the gauge or meter.

#### T/LL141 Voltage output variant



#### T/LL140 Resistance output variant



#### Stage 3 – Calibration

**Note:** Do not connect the calibration wire (white) to V+ wire (red) or the sensor will be permanently damaged.

**Note:** Please do not extend the calibration wire.

- i. With the sensor probe out of liquid, connect the calibration wire (white) to ground or to the steel probe and then power up the sensor with a 12V or 24V (9 ~ 32V) supply.
- j. Disconnect the wire after 10 seconds.
- k. This has recalibrated the empty level of the sensor output.



- l. Immerse the probe in the liquid for which the sensor will be used, until the liquid is at the required full level (up to or below the max. liquid full point).
- m. Touch the (white) calibration wire to ground for 10 seconds and then remove it.
- n. This has recalibrated the full point of the sensor output.
- o. On completion of the calibration process please cut back/tie the calibration wire (white) to ensure the unit doesn't enter calibration mode when not required.



**Note:** After calibration is complete, the gauge will default to full deflection on power up. The time delay between this full deflection and the correct output is application specific.

**Note:** After the calibration process is complete a constant live feed is not required to maintain calibration levels.