# IIL Integrated Fuel Level Sensor Calibrate Procedure

The following procedure is used to calibrate full and empty points for a sensor. It draws on calibration activities in Fozmula ATI1238.

## 1 Before Commencing

1.1 Ensure PCB is programmed with Hex Code ‘CA0520 TLL35x Iss8t.HEX’

1.2 Ensure PCB is programmed with specific parameters such as output type, output range, cycle count etc using the Setup GUI.

1.3 Ensure access to IC7 (Microntroller) Pin 9 (calibration port) and IC7 (Microntroller) Pin 14 (0V). These will need to be shorted together, so have a wire link or similar available.

1.4 Immerse the sensor in clean diesel fuel to the highest working level, remove and leave to drain for a minimum of 2 minutes. This assists accuracy through surface wetting all the materials and reducing surface bubbles.

1.5 Have a 24Vdc supply and DMM with connections.

## 2 Empty Calibration

2.1 Immerse the bottom of the probe to the top of the drain (bottom) holes as shown in photo below. Allow to settle for 10 seconds.


2.2 Make a link between IC7 (Microntroller) Pin 9 (calibration port) and IC7 (Microntroller) Pin 14 (0V)

2.3 Keeping the link between the pins, switch on 24Vdc power to the sensor. Keep the link maintained for 8 seconds and then remove. The power supply remains on.

## 3 Full Calibration

3.1 With the power supply still remaining on, lower the sensor into the diesel slowly. If possible, tap the sensor to release any entrapped air bubbles to assist accuracy.

3.2 Immerse all the way to the midpoint of the breather (top) holes as shown in photo below. Hold the sensor still using fixture or similar. Allow to settle for 10 seconds.


3.3 Remake the link between IC7 (Microntroller) Pin 9 (calibration port) and IC7 (Microntroller) Pin 14 (0V).

3.4 Keep the link maintained for 8 seconds and then remove. While the link is made the output will scroll between empty and full.

3.5 Calibration now complete.

## 4 Check

4.1 At full level DMM should read 5.0V nominal.

4.2 Slowly remove sensor and watch output decrease.

4.3 At empty level DMM should read 0.5V nominal.