

## TECHNICAL DATA

# TLL150 Liquid Level Sensor Cut-to-Length and Calibrate

**FOZMULA**  
INNOVATION IN SENSORS



The **T/LL150** liquid level sensor is designed for use in diesel fuel tanks and is available with a variable resistive or voltage output suitable for driving industry standard fuel gauges or connecting into PLCs. This capacitance type level sensor is supplied in standard lengths and is designed to be cut-to-length and calibrated by the customer making it ideal for custom and urgent projects.

## SPECIFICATION

### Dimensions

**Probe Lengths:** 500mm, 1,000mm for cutting to length by customer.  
**Threads:** ½" BSPT, 1" BSPT, ½" NPT  
**Optional Flange:** SAE 5 Hole: Fozmula **F/T1** for ½" BSPT  
 Fozmula **F/T8** for ½" NPT

### Performance

**Accuracy:** ±2% of depth @ 20 °C

### Materials

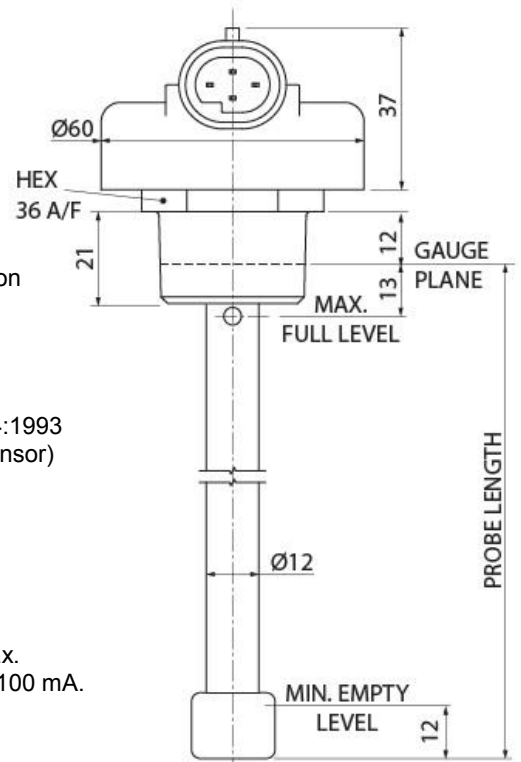
**Enclosure:** 30% glass filled nylon  
**Internal Electrode:** Aluminium alloy 6063  
**Sensor Tube:** 316 stainless steel  
**Internal Spacers:** Polypropylene  
**End plug:** PVC / G/F nylon  
**Wetted Seals:** Viton, NBR

### Environmental Ratings

**Sealing:** IP67 with mating connector  
**Max Pressure:** 1 bar  
**Shock:** 50 g, 6.3 ms  
**Vibration:** 7.6 Grms  
 BS EN 60068-2-64:1993  
**Operating Temp:** -20 °C to +85 °C  
**Weight:** 300 g (1 m long sensor)

### Electrical

**Supply Voltage:** 9-34 VDC  
**Supply Current:** 30 mA  
**Supply Protection:** Over-voltage 80 VDC for 2 minutes.  
 Reverse polarity.  
**Signal Output:** Resistance range; 0-250 Ω or 250-0 Ω, 2 Ω steps, 0.4 W max.  
 Voltage source range; 0-5 V or 5-0 V, 20 mV steps, 10 mA max.  
**Alarm Output:** Switch to ground, close on fall at 12.5% of active length. Max 100 mA.  
**Connections:** 4 Way Delphi Packard Metri-Pack 150 Series.  
**Mating Connector:** Fozmula **C/K1** (Delphi Packard Metri-Pack 150)  
 To fit 0.8-1.0 mm<sup>2</sup> conductor, Ø1.6-2.15 mm sleeve.



### Calibration Instructions

Units will be supplied calibrated for diesel.

#### Full Point:

1. Install sensor in the tank and power on.
2. Fill tank to required full level.
3. Depress "CAL" button. Hold for 5 seconds to set full point. Release button. Check output for full point.

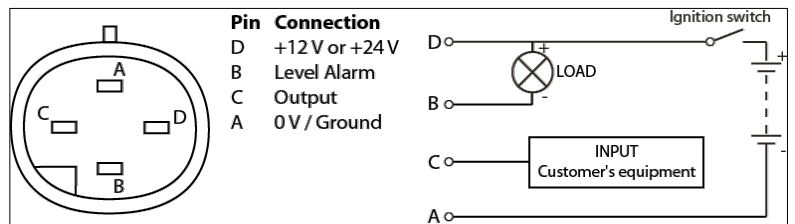
#### Empty Point (if required):

1. Fill tank to required level or, for Min. Empty Level, remove from tank and shake to remove excess liquid.
2. Disconnect power.
3. Depress "CAL" button then reconnect power whilst depressing calibration button. Continue to depress for a further 5 seconds to set empty point. Release button. Check output for empty point.

### Standard part numbers and options

TLL15 X	XX	XXXX	XX
Type	Thread	Length	Output
0 Resistive, Ω	5B ½" BSPT	0500 500 mm	70 10 - 180 Ω
1 Voltage, V	1B 1" BSPT	1000 1000 mm	71 240 - 32 Ω
	5N ½" NPT		01 0 - 5 VDC
	1N 1" NPT*		

\*Available Sept, 2019



Available from:



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