

TECHNICAL DATA

TLL150 Fuel Level Sensor Cut-to-Length and Calibrate

FOZMULA
INNOVATION IN SENSORS



The **T/LL150** fuel 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

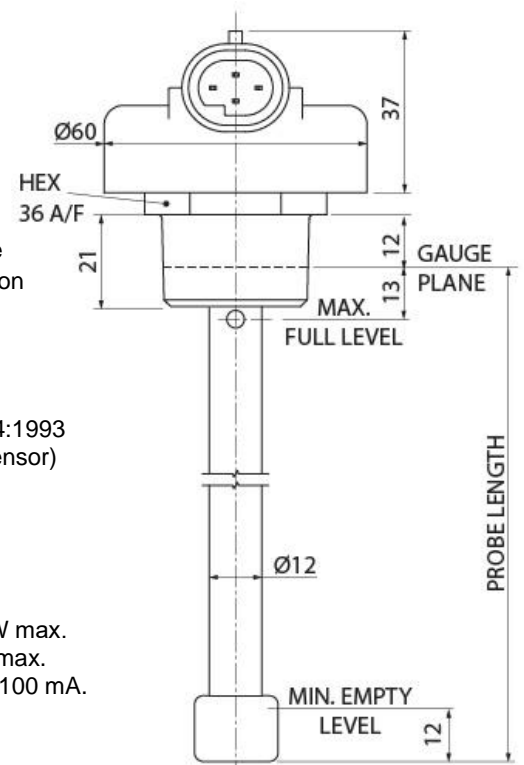
Enclosure:	30% glass filled nylon	Internal Spacers:	Polypropylene
Internal Electrode:	Aluminium alloy 6063	End plug:	PVC / G/F nylon
Sensor Tube:	316 stainless steel	Wetted Seals:	Viton, NBR

Environmental Ratings

Sealing:	IP67 with mating connector	Shock:	50 g, 6.3 ms
Max Pressure:	1 bar	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

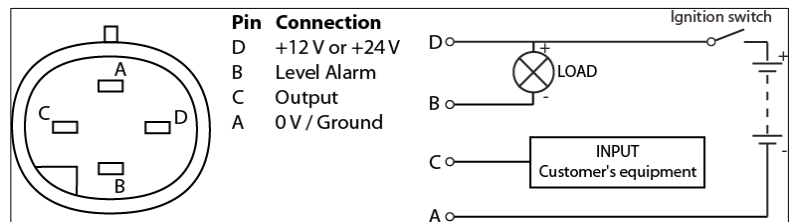
Supply Voltage:	9-34 VDC
Supply Current:	30 mA
Supply Protection:	Over-voltage 80 VDC for 2 minutes. Reverse polarity.
Signal Output:	Resistance range; 0-250 Ω or 250-0 Ω, 2 Ω steps, 0.4 W max. Voltage source range; 0-5 V or 5-0 V, 20 mV steps, 10 mA max.
Alarm Output:	Switch to ground, close on fall 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 ² conductor, Ø1.6-2.15 mm sleeve.



Summary of Cutting and Calibration Instructions

Units will be supplied calibrated for diesel.

1. **Cut probe the required length for your fuel tank.**
2. **Calibrate the Empty Point:**
 - 2.1. Start with the probe disconnected from power.
 - 2.2. In air, for the min. empty level, or in fuel at the required level.
 - 2.3. Depress "CAL" button then reconnect power keeping the calibration button depressed.
 - 2.4. Continue to depress for a further 10 seconds this sets the empty point. Release the button.
3. **Calibrate the Full Point:**
 - 3.1. With the probe connected to power.
 - 3.2. Place the sensor in fuel to the required full point.
 - 3.3. Depress "CAL" button. Hold for 10 seconds to set full point. Release button.
4. **Check the outputs for full and empty points.**



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

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