

## TECHNICAL DATA

**FOZMULA**  
INNOVATION IN SENSORS

### T/LL350 series fluid level sensor



The **Model T/LL350** series is a range of highly advanced sensors for continuously measuring the contents of a tank. The unique feature of the T/LL350 is that it recalibrates itself when a liquid with a different dielectric constant is used. For example, if it is used in a tank of conventional diesel, then the user can refill with bio-diesel and the sensor will correct the output level automatically.

Options include a level alarm point, set at any point along the stem to be either high or low level, and any suitable receptacle or cable requirement specified by the user.

## SPECIFICATION

### Dimensions:

**Probe length:** Min 150mm, Max 2000mm (Min 5.9", Max 78.7")

### Electrical:

**Supply voltage:** 9-32 VDC with 80V over voltage protection  
**Connections:** 430mm long 18AWG XPE flying leads  
80V over voltage protection is provided

**Supply current:** 15mA@12Vdc + output load  
**Accuracy:** ±2.0% of probe length (min 300mm)  
@ 20°C (+68°F) in diesel

### Outputs:

**Resistive:** Any values between 3-500Ω or 500-3Ω.  
**Voltage:** Any values between 0-5V/5-0V (12VDC system)  
or 0-10V/10-0V (24VDC system).

**Current:** 0-20mA, 4-20mA

### Construction:

**Housing:** Die cast aluminium  
**Internal insulators:** PTFE

**Sensor tube:** Anodised aluminium  
**Wetted seals:** PTFE, Polypropylene & Viton

### Fluid Types:

Diesel, biodiesel, kerosene, petrol, water or any liquid which is compatible with the materials of construction.

### Environmental Ratings:

**Temperature - operating:** -20°C to +85°C (-22°F to +185°F)\* see below  
**- storage:** -20°C to +105°C (-22°F to +221°F)

**Sealing:** IP67  
**Weight:** 300g (10 oz) (1M long unit)  
**EMC:** Type approval in accordance with  
EN ISO 13766:2006

**Max tank pressure:** 10 psi (0.75 bar)

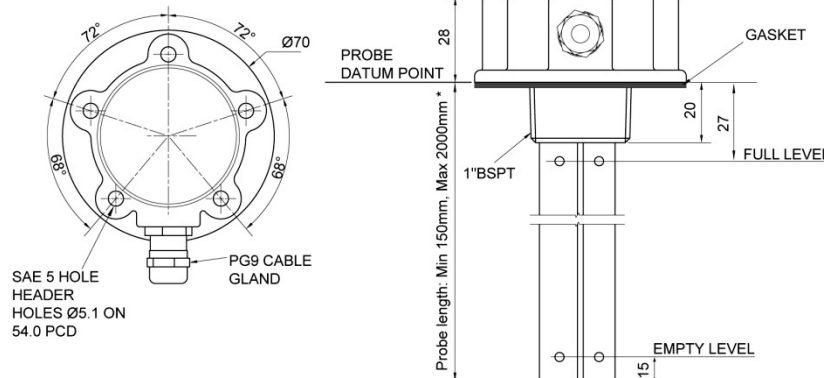
**Vibration:** BS EN 60068-2-64:1993. IEC 60068-2-6\*  
(for probes up to 500mm long)

### Options:

**Alarm:** One position at either high or low level. High level will switch to ground above level, low level will switch to ground below level. Max load 100mA.

**Connections:** Any suitable customer specified receptacle can be fitted.

\* **Temperature ratings:** Lower temperature rated parts are available upon request.



\* For lengths over 1000mm it is recommended that the end of the probe is supported, i. e. when used in mobile applications.

* Vibration testing	
Frequency	G2/Hz
10	0.005
150	0.020
220	0.010
350	0.002

Model variant table	
Model No	Output
T/LL350	Resistive
T/LL351	Voltage
T/LL352	Current
T/LL353	Resistive + alarm
T/LL354	Voltage + alarm
T/LL355	Current + alarm

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