

TECHNICAL DATA

T/LL350 Series Liquid Level Sensor

FORMULA
INNOVATION IN SENSORS

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 auto compensates 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 high/low level alarm point and fitment of any suitable connector.

SPECIFICATION

Liquid Types

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

Construction

Housing: Die cast aluminium & stainless steel
Sensor tube: Anodised aluminium
Wetted Materials: PTFE, polypropylene, Viton, aluminium & stainless steel

Dimensions

Probe length: Min 150mm
Max 2000mm static applications & 1000mm on mobile applications

Electrical

Supply voltage: 9-32 VDC with 80V over voltage protection
Supply current: 15mA@12Vdc + output load
Connections: 430mm long 18AWG XLPE flying leads#

Outputs

Resistive: Any values between 3-500Ω or 500-3Ω (3Ω Steps)
Resolution: 3Ω
Max dissipation: 250mW
Current: 0-20mA, 4-20mA
Resolution: 20μA
Max load: 250Ω (Including interconnecting cable resistance)
Voltage:
12VDC system: Any values between 0-5V/5-0V
24VDC system: Any values between 0-10V/10-0V
Resolution: 10mV
Max Load: 10mA source (dependent on minimum supply voltage)
Accuracy: ±2.0% of probe length @ 20°C (+68°F) in diesel (For probes lengths 300mm and above)

Environmental Ratings

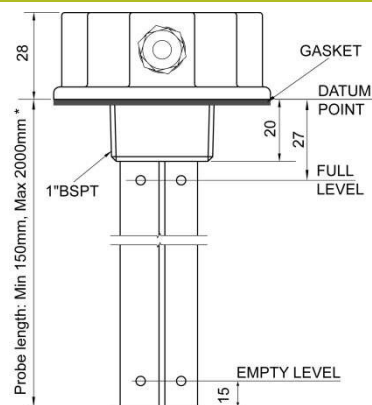
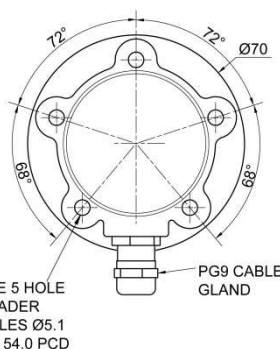
Operating Temperature: -20°C to +85°C (-4°F to +185°F)
Sealing: IP67
Weight: 300g (10oz) (1000mm long unit)
Max tank pressure: 0.75 bar (10 psi)
EMC: Type approval in accordance with EN ISO 13766:2006
Vibration: 500mm sensor type tested to 1.88grms to BS EN 60068-2-64:1993*
Shock: 500ms⁻², 11ms to BS EN 60068-2-27:1993

Alarm: One position at either high level (switch to ground above level) or low level (switch to ground below level). Switch point can be set between 7% and 90% of measuring range (hysteresis 5%). **Max load:** 100mA.

Custom empty/full points: Specific empty and full levels can be provided within the allowable measurement range of the probe.

Connections: Any suitable customer specified connector can be fitted. Terminated wire ends should be fitted with suitably sealed connectors to maintain specified IP rating.

† Due to 3Ω resolution, accuracy of resistive output variants is specified accuracy ±3Ω.



* Up to 1000mm in mobile applications or up to 2000mm in static applications.

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

* Vibration Testing

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