

T/LL360 Liquid Level Sensor Extended Temperature Range



The **Model T/LL360** is an extended temperature range variant of the T/LL350 series of highly advanced sensors for continuously measuring the contents of a tank. Capable of operating at temperatures as low as -40°C the T/LL360 series auto compensates when a liquid with a different dielectric constant is used. For example, if it is used in a tank of conventional diesel, the user can refill with bio-diesel and the sensor will correct the output level automatically.

Options include a high/low level alarm point, fitment of any suitable connector and compensation for non-linear shaped tanks.



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
Anodised aluminium

Sensor tube:

PTFE, polypropylene, FVMQ, fluoro-silicone, aluminium & stainless steel

Wetted materials:

Dimensions

Probe length:

Min 150mm
Max 2000mm static applications & 1000mm for mobile applications

Electrical

Supply voltage:

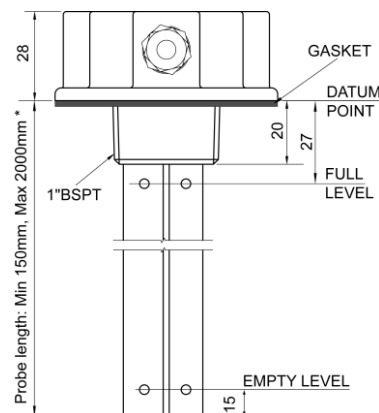
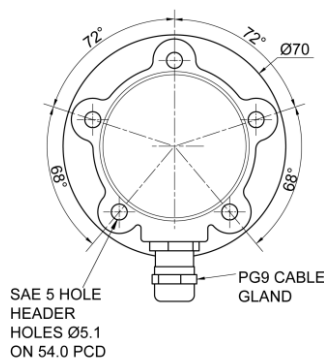
9-32 VDC with 80V over voltage protection

Supply current:

15mA@12Vdc + output load

Connections:

430mm long 18AWG XLPE flying leads#



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

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

(For probes lengths 300mm and above)

Voltage & current:

±2% of probe length @ 20°C (+68°F) in diesel

Resistance:

+2% rounded up to the nearest multiple of 3

-2% rounded down to the nearest multiple of 3

±0.5 Ohms is added to empty and full tolerance

Environmental Ratings

Operating Temperature:

-40°C to +85°C (-40°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:

500ms², 11ms to BS EN 60068-2-27:1993

Options

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.

Non-linear Tanks:

Compensation for non-linear tank shapes available.

#Connections:

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

Model Variant Table	
Model No	Output
T/LL360	Resistive
T/LL361	Voltage
T/LL362	Current
T/LL363	Resistive + alarm
T/LL364	Voltage + alarm
T/LL365	Current + alarm

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