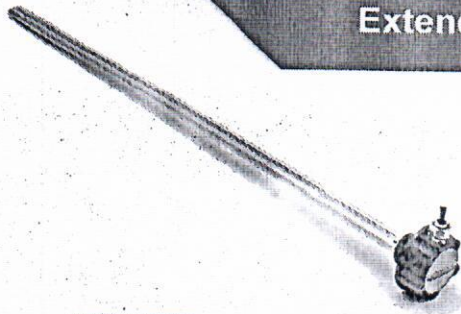


## TECHNICAL DATA

### T/LL360 Series Liquid Level Sensor Extended Temperature Range

**FORMULA**  
INNOVATION IN SENSORS



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  $-40^{\circ}\text{C}$  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 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, FVMQ, fluorosilicone, aluminium & stainless steel

### 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#

### Outputs

**Resistive:** Any values between 3-500 $\Omega$  or 500-3 $\Omega$  (3 $\Omega$  Steps)  
Resolution: 3 $\Omega$   
Max dissipation: 250mW  
**Current:** 0-20mA, 4-20mA  
Resolution: 20 $\mu\text{A}$   
**Max load:** 250 $\Omega$  (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:  $\pm 2.0\%$  of probe length @  $20^{\circ}\text{C}$  ( $+68^{\circ}\text{F}$ ) in diesel (For probes lengths 300mm and above)

### Environmental Ratings

**Operating Temperature:**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+185^{\circ}\text{F}$ )  
**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

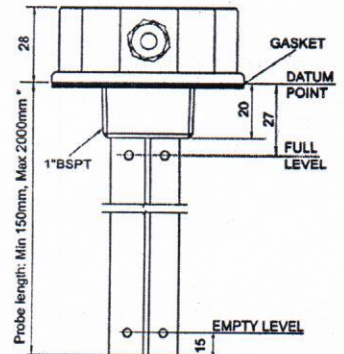
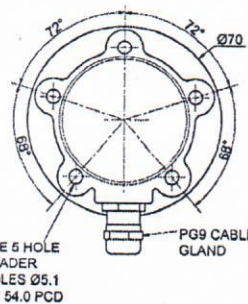
### Options

**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.

**#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 3 $\Omega$  resolution, accuracy of resistive output variants is specified accuracy  $\pm 3\Omega$ .



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

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