



## Application

The COLM (COntec Level Measurement) T/LL350 is an advanced sensor for continuous measurement of tank contents.

What makes the T/LL350 special is that it automatically compensates for the use of liquids with different dielectric constants. For example, when used in a conventional diesel tank, the user can add biodiesel and the sensor will automatically correct the level. Options include high and low level alarm points, installation of appropriate connections, and compensation of non-linear shaped tanks.

## Liquid Types

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

## Construction

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

## Dimensions

<b>Probe length:</b>	Min 150 mm Max 2000 mm static applications & 1000 mm on mobile applications
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## Electrical

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

## Outputs

<b>Resistive:</b>	Any values between 3-500 $\Omega$ or 500-3 $\Omega$ (3 $\Omega$ Steps)
<b>Resolution:</b>	3 $\Omega$
<b>Max dissipation:</b>	250 mW
<b>Current:</b>	0-20 mA, 4-20 mA
<b>Resolution:</b>	20 $\mu$ A
<b>Max load:</b>	250 $\Omega$ (Including interconnecting cable resistance)

## Voltage

<b>12 VDC system:</b>	Any values between 0-5 V/5-0 V
<b>24 VDC system:</b>	Any values between 0-10 V/10-0 V
<b>Resolution:</b>	10 mV
<b>Max Load:</b>	10 mA source (dependent on minimum supply voltage)
<b>Accuracy:</b>	$\pm$ 2.0% of probe length @ 20°C (+68°F) in diesel (For probes lengths 300 mm and above)



## Environmental Ratings

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

## Options

<b>Alarm:</b>	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: 100 mA.
<b>Custom empty/full points:</b>	Specific empty and full levels can be provided within the allowable measurement range of the probe.
<b>Non-linear Tanks:</b>	Compensation for non-linear tank shapes available.
<b>Connections:</b>	Any suitable customer specified connector can be fitted. Terminated wire ends should be fitted with suitably sealed connectors to maintain specified IP rating.
<b>F:</b>	Due to 3 $\Omega$ resolution, accuracy of resistive output variants is specified accuracy $\pm$ 3 $\Omega$ .

## \*Vibration Testing

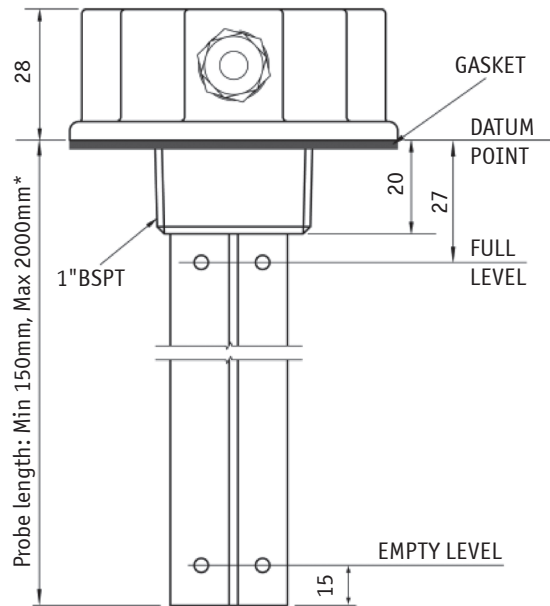
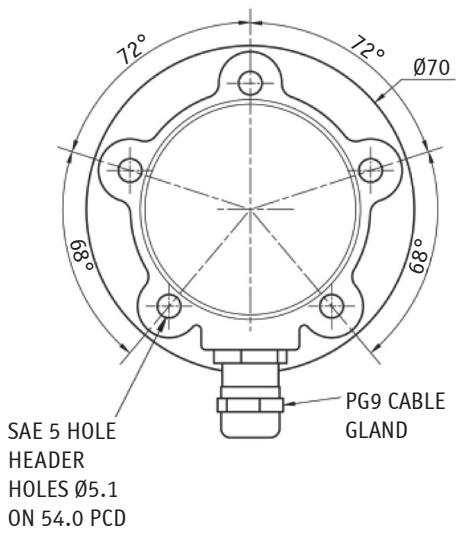
Frequency	G2/Hz
10	0.005
150	0.020
220	0.010
350	0.002



# COLM T/LL 350 Liquid Level Sensor

## 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



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