



Application

The COLM (COntec Level Measurement) T/LL35X series is a range of highly advanced sensors for continuously measuring the contents of a tank. The unique feature of the T/LL35X 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, fitment of any suitable connector and compensation for non-linear shaped tanks.

Liquid Types

Diesel, Biodiesel, HVO, 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, Fluorosilicone FVMQ, Aluminium & Stainless-Steel
Gasket:	NBR N70C181

Dimensions

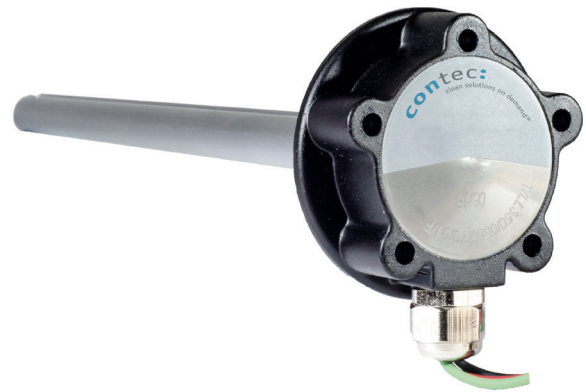
Probe length:	Min 150 mm
	Max 2,000 mm static applications & 1,000 mm on mobile applications

Electrical

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

Outputs

Resistive:	
Resolution:	Any values between 3-501 Ω or 501-3 Ω (3 Ω Steps)
Max dissipation:	3 Ω
Current:	
Resolution:	0-20 mA, 4-20mA
Max load:	20 μ A 250 Ω (Including interconnecting cable resistance)
Voltage:	
12 VDC system:	Any values between 0-5 V/5-0 V
24 VDC system:	Any values between 0-10 V/10-0 V
Resolution:	10 mV
Max load:	10 mA source (dependent on minimum supply voltage)
Accuracy:	\pm 2.0% of probe length @ 20°C (+68°F) in diesel (For probes lengths 300 mm and above)



Electrical

Operating Temperature:	-40°C to +85°C (-40°F to +185°F)
Sealing:	IP67
Weight:	300 g (10 oz) (1000 mm long unit)
Max tank pressure:	0.75 bar (10 psi)
EMC:	Type approval in accordance with EN ISO 13766:2006
Vibration:	500 mm sensor type tested to 1.88 grms to BS EN 60068-2-64:1993
Shock:	500 ms ⁻² , 11 ms 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:	100 mA
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.
F:	Due to 3 Ω resolution, accuracy of resistive output variants is specified accuracy \pm 3 Ω .



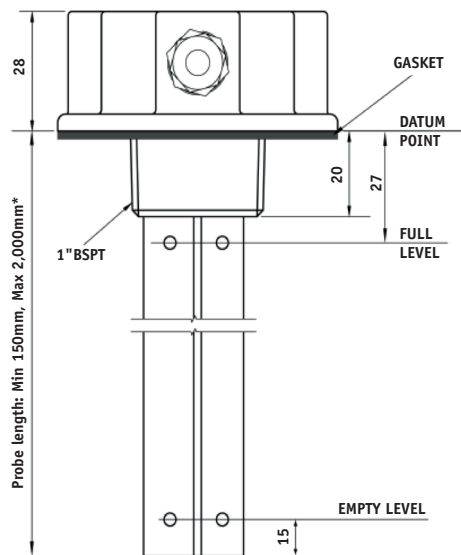
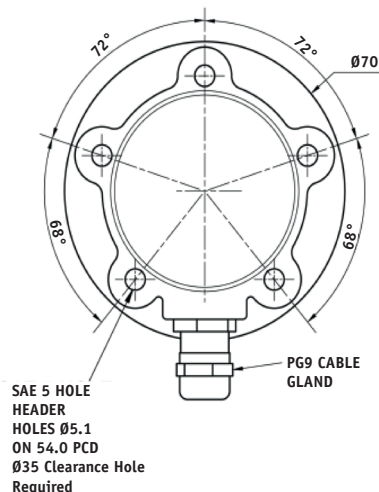
T/LL35X Liquid Level Sensor

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

Vibration Testing

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



* Up to 1,000mm in mobile applications or up to 2,000mm in static applications.