

TLL155 Capacitive Fuel Level Sensor. Cut-To-Length and Calibrate



The **TLL155** liquid level sensor is designed for use in diesel fuel tanks and is available with a variable resistive, voltage or current output suitable for driving industry standard fuel gauges or connecting into PLCs. It is supplied in standard probe lengths of 500mm or 1000mm and can be cut to length and magnetically calibrated by the end user.



SPECIFICATION

Liquid Types

Non-conductive Fuels: Diesel and Kerosene

Electrical

Supply voltage: 9- 36 VDC with 80 V over protection

Supply current: 15mA @ 12 VDC + output load.

Outputs

Resistive: Any values between 3-500Ω or 500-3Ω (3Ω Steps)

Resolution: 3Ω

Max dissipation: 250mW

Current: 1-20mA, 4-20mA

Resolution: 20μA

Max Load: 250Ω

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 min supply voltage) For probe lengths 300mm and above:

Accuracy: **Voltage & Current:** ±2% of probe length @ 20°C in diesel

Resistance: +2% rounded up to the nearest multiple of 3
-2% rounded down to the nearest multiple of 3
±0.5Ω is added to empty and full tolerance.

Options

Alarm Output: Switch to ground, close on fall at 12% of active length Max 100mA

Customer empty & Full points: Specific empty and full levels can be calibrated within the allowable measurement range of the probe.

Connections: Integral 4 Way Tyco Superseal connector.

Accessories: **C/K16** kit consisting of mating Tyco 4-way AMP 1.5 Superseal Connector (282088-1), 4 x 1.5 receptacle terminals (183025-1) & 4 x wire seals (281934-2). Wire range 0.75mm² to 1.5mm²
S/K155 Cut to length kit – Nylon end cap, spacer & calibration magnet.

Standard part numbers and options.

TLL15X	/	X	/	XXXX	/	XX
TYPE	THREAD	LENGTH	OUTPUT			
TLL155 Resistive, Ω	N, NPT	0500, 500mm	70, 10 – 180 Ω			
TLL156 Voltage, V	B, BSPT	1000, 1000mm	80, 0 – 5 V			
TLL157 Current, mA			90, 4 – 20 mA			

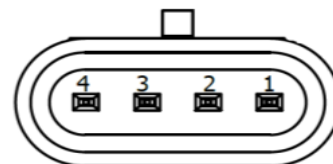
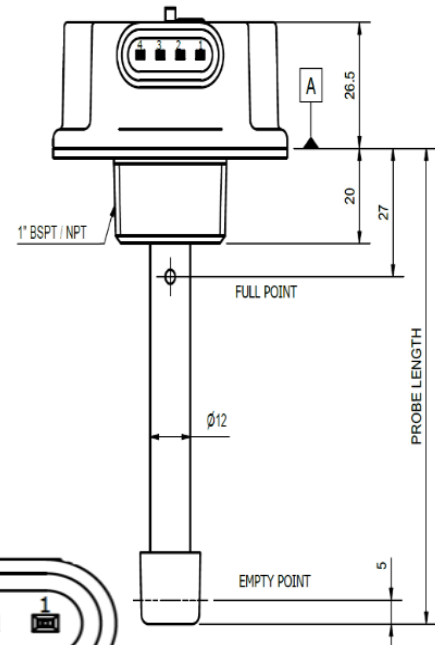
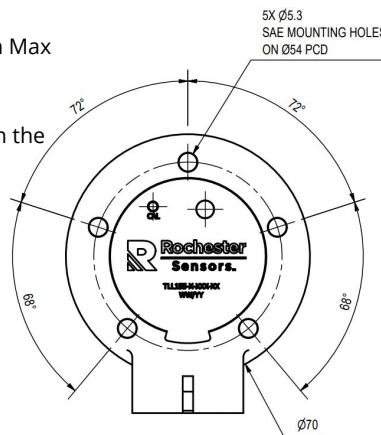
Part number Example: TLL155-B-0500-70
Supplied with SAE 5-Hole Gasket.

Construction

Probe: 316 Stainless Steel
Wetted Materials: Nylon 66, Aluminium Alloy 6063, FKM
Light Tube: Polycarbonate for LED calibration Nylon 66
End Plug: Standard 500mm & 1000mm for cutting to length by the customer.
Probe Length:

Environmental Ratings

Ingress: Sensor housing & connector IP67
Max. pressure: 1 Bar
Temperature range: -20°C to +85°C
Weight: 300 g (1000mm long sensor)
EMC: EN ISO13766-1:2018
Vibration: 500mm sensor type tested to 6.3grms to BS EN 60068-2-64:2008
500ms⁻² 11ms to BS EN 60068-2-27:2001
1M to concrete surface.
Shock:
Drop test



Superseal 1.5 Connector (282088-1)			
PIN 4	PIN 3	PIN 2	PIN 1
Output Signal	Low-level Alarm	V-	V+