

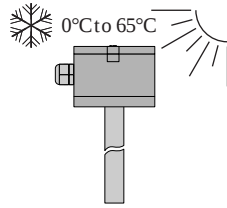
TLC-F... Capacitance Type Level Transmitter for Fuel

Technical Specification Document

Approvals & Certifications:



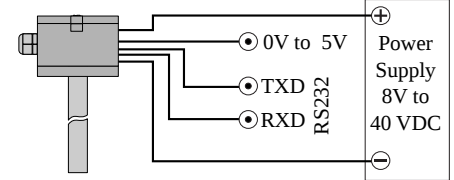
Temperature Stable



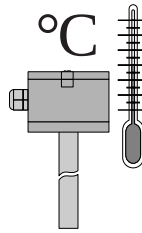
Electronics is less temperature sensitive. Better long term performance

Output Suitable for VTD

Output is available in format and methods suitable for various vehical tracking device(s). Custom modifications are also available to suit specific needs for a particular vehical application.



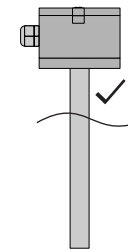
Temperature Sensing Available



Using digital interface (RS232/485) onboard temperature sensor can be read by external device.

This temperature can be taken as a vital reading for monitoring and logging purpose/

Adjustable Damping Factor



Adjustable damping allows immunity against level fluctuations in moving vehical.

Damping factor is made settable through digital interface so that it can be set through vehical tracking software without getting close to the vehical.

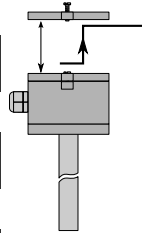
Turbulence Immune

Easy Installation

Stable Reading

Plain ASCII Digital Interface

Sensor Uncovered Signal Available



Using digital interface (RS232/485) onboard sensor tempered signal can be read.

This reading can be taken as a measure of sensors integrity and tempering.

Vehical Power Dump Immune

Sensor power supply is capable of enduring power and load dump situations typically occur in various vehical due to variety for load requirement.

Sensor is thus immune to failure under automobile conditions of power supply.

ASCII Interface Commands (suitable for Vehical Tracker)

Command from Vehical Tracker	To Sensor				Response from Sensor				Reply Meaning	
	Command Header	Command Word	Sensor ID Number	Check Sum	Header	Reply Word	Sensor ID Number	Reply Result	Check Sum	
Read Oil Level Percentage (0.0% min 100.0% max)	\$!	D O	0 1	3 9	*	R F V	0 1	0 0 0 . 0 1	9 8	Oil level is 00.01% (Decimal)
Read Oil Level ADC Value (scaled to 16 bits)	\$!	R Y	0 1	5 1	*	C F V	0 1	0 0 F A 3 2	B 6	ADC Value is FA32 (Hexadecimal)
Set Existing Level as 0% (Empty) Level	\$!	D Z	0 1	4 4	*	S C Z	0 1	0 0 0 0 0 2	9 D	0% is set at 0002 Hex ADC Value
Set Existing Level as 100% (Full) Level	\$!	D S	0 1	3 D	*	S C S	0 1	0 0 3 F F F	E 0	100% is set at 3FFF Hex ADC Value
Modify Oil Sensor ID Number	\$!	I D	0 2	3 4	*	S I D	0 2	0 K O K O K	3 A	New ID number is accepted
					*	S I D	0 1	N O N O N O	3 9	ID Changing is not allowed
Modify Sensor Damping Factor for Turbulant Level	\$!	Z 4	0 1	3 4	*	S Z N	0 1	0 K O K O K	5 4	Damping factor of 4 is accepted
					*	S Z N	0 1	N O N O N O	5 D	Damping factor setting is rejected
Read Sensor Electronics Temperature	\$!	R T	0 1	4 C	*	R T V	0 1	+ 0 3 0 . 2	A 5	Temperature is +30.2 °C
					*	R T V	0 1	- 0 3 0 . 2	A 7	Temperature is -30.2 °C
					*	R T V	0 1	F F F F . F	1 3	Temperature sensing is not available

Checksum is ASCII representation of last two hex digits of the sum of all hex values in the command or reply. for example: hexadecimal of ASCII command '\$! D O 0 1 3 9' is '24 21 44 4F 30 31 33 39' where last ASCII '3 9' is the checksum obtained as sum '\$! D O 0 1': 24 + 21 + 44 + 4F + 30 + 31 = 139 (Hex) which is '1 3 9' in ASCII. From this checksum only last two '3 9' are taken as checksum and '1' is discarded.

Various other commands other than those mentioned above are available. Many more custom commands can be formed as long as command & reply formats are kept unchanged. Format changing is acceptable under special circumstances. Please talk to our sales representative for the same.