

Liquid-Level Sensors

with Temposonics® Magnetostrictive Technology



M-Series Model USTD II
Underground Storage Tank Level Sensor
For Leak Detection and Inventory Monitoring

550949 B

Product Specification

Model USTD II
Underground Storage Tank (UST) gauge
for Gas Station Applications



Features

- Continuous absolute level gauging
- Gauge order length 29 in. to 149 in. (737 mm to 3800 mm in various lengths)
- Only one probe for temperature, product and water levels
- Output: EIA RS-485 interface
- 2-wire multidrop network
- Non-linearity 0.025%
- Intrinsically safe
- Safety approvals:
ATEX EEx ia IIB T4
FM IS Class I, Div 1
- Continuous temperature measurement using 5 Digital Thermometers (DTs)
- No recalibration needed

Applications

- Fuels and solvents

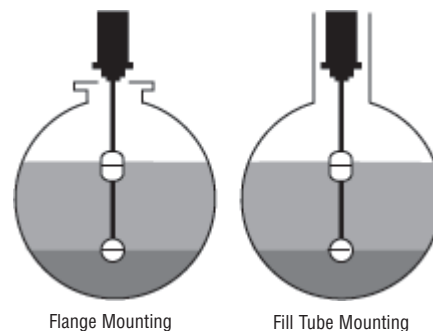
Market

- Underground Storage Tank (UST)

Model USTD II

The robust Model USTD II is the pioneering Underground Storage Tank (UST) gauge for gas station applications. Dual floats are used to measure product level and water. In addition, the gauge determines the

individual and average temperature with 5 integrated temperature transmitters. The RS-485 interface is used for remote data transfer to the tank management system.



All specifications are subject to change. Please contact MTS for specifications that are critical to your needs. For more information, go to www.mtssensors.com.

Specifications

Parameter	Specification
LEVEL OUTPUT	
Measured Variable:	Product level, water level, temperature
Full Range:	29 in. to 149 in. (737 mm to 3800 mm)
Non-Linearity:	0.025% of full scale
Repeatability:	0.001%
Process Temperature:	Electronics: -40 to 160 °F (-40 to 71 °C)
TEMPERATURE OUTPUT	
Measured Variable:	Average and multi-point temperature (up to 5 Digital Thermometers)
Temperature Accuracy:	± 0.5 °F (± 0.25 °C)
ELECTRONICS	
Input Voltage Range:	10.5 to 30.1 VDC
Safety Approval (Pending):	ATEX EEx ia IIB T4, FM IS Class I, Div 1
ENVIRONMENTAL	
Operating Temperature:	Electronics: -40 to 160 °F (-40 to 71 °C)
Vessel Pressure:	Up to 60 psi (4.0 bar)
FIELD INSTALLATION	
Length (excluding housing):	29 in. to 149 in. (737 mm to 3800 mm)
Mounting:	3/4 in. NPT adjustable fitting and/or fill tube hanger with centering disks

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Accessories

U S T D I I L L L L

GAUGE MOUNTING TYPE

- U** = Inches (0LLL); Agency approvals - FM
M = Millimeters (LLLL) - ATEX

LENGTH (Example)

101 in. (2565 mm) is equal to U0101 or M2565

- H** = Fill tube mounting (hanger w/centering disk) - FM
A = Flange mounting (3/4" NPT adjustable fitting) - FM
6 = Flange mounting (3/4" NPT adjustable fitting) - ATEX

- S** = Standard product without cable - FM
9 = Standard product without cable - ATEX

STANDARD FEATURES:

- Five DTs evenly spaced.
- Data Output format is USTD Type.

Cable assemblies available:

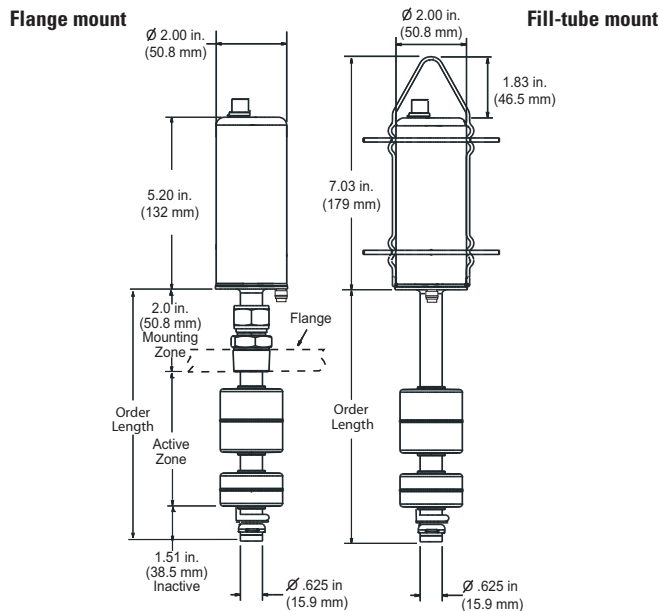
530049 12' Cable assembly straight
 370481 12' Cable assembly, rt angle

FLOATS AVAILABLE:

201605 - 2 Product, SS, 1.83 in. (46.5 mm) dia., 2.11 in. (53.5 mm) tall
 201606 - 2 Gas/Water interface, SS, 1.83 in. (46.5 mm) dia., 1.22 in. (31 mm) tall

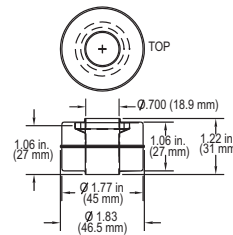
201605 & 201606 must be used in ATEX approved versions

Dimensions, model USTD II gauge

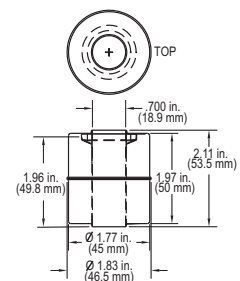


Dimensions, floats

Float, gas/ water interface Round SST part no. 201606-2



Float, product/ Round SST part no. 201605-2



Part Number: 01-05 550949 Revision B

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All Temposonics sensors are covered by US patent number 5,545,984. Additional patents are pending.

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