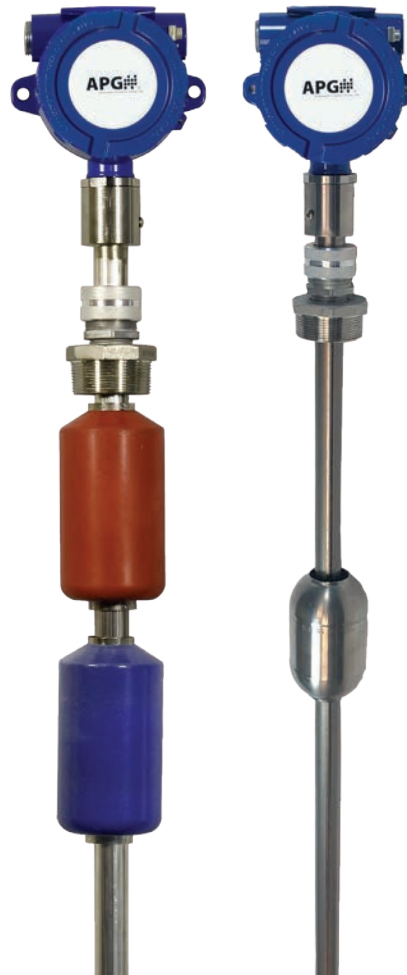


API 18.2 CUSTODY TRANSFER APPROVED EXPLOSION PROOF MAGNETOSTRICTIVE LEVEL SENSORS SERIES: MPX



The MPX Series API 18.2 Custody Transfer Magnetostrictive Level sensors provide the highly accurate and repeatable level and temperature readings necessary for oil storage and transfer from lease tanks. The MPX-R offers a 1"-diameter, stainless steel stem, while the MPX-T uses a 1"-diameter titanium stem for a larger range of chemical compatibility, including H₂S. All models come with required digital temperature sensors in the stem and feature robust floats that resist fouling and buildup.

Features

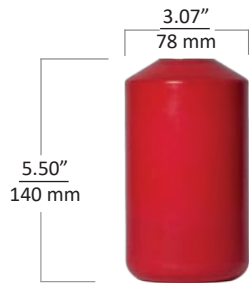
- Class 1 Division 1 Groups C & D, Class 1 Zone 1, Class 1 Zone 2
- Highly accurate and repeatable readings
- RS-485 (Modbus RTU) output
- Rugged and reliable, lengths up to 31.5 feet (9.60 m)
- Dual level (interface) measurement
- Tank volume/level, strapping table



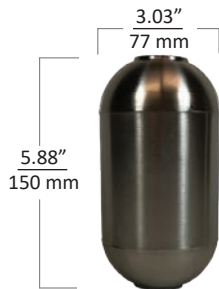
MPX-R SPECIFICATIONS

MPX-R Floats

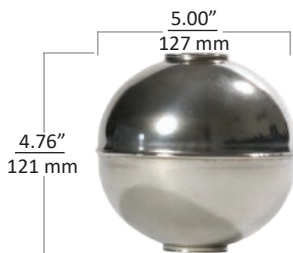
Floats Y, Z



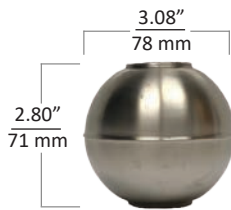
Floats U, V



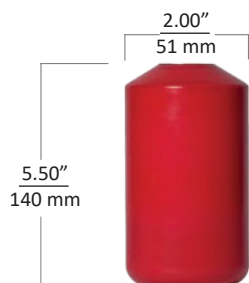
Floats W, X



Floats S, T



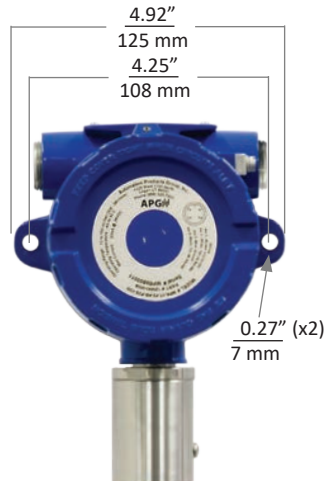
Floats L, M



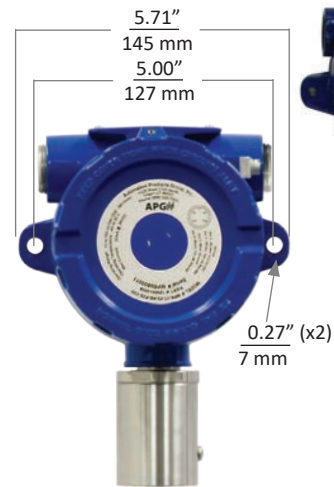
Floats I, J



Small Housing



Large Housing



Performance

- Resolution: Modbus: 0.04 in. (1 mm)
- Accuracy: Distance: ± 0.04 in. (1 mm) over range
Temp Sensors: $\pm 0.25^\circ\text{C}$ over $-40^\circ - 85^\circ\text{C}$
 $\pm 0.13^\circ\text{C}$ over $+20^\circ - 70^\circ\text{C}$

Programming

- RS-485: optional RST-6001 USB to RS-485 converter

Environmental

- Operating Temperature: $-40^\circ - 85^\circ\text{C}$ ($-40^\circ - 185^\circ\text{F}$)
- IP65

Physical

- Housing: Cast aluminum, epoxy coated
- Stem: 1.0" \varnothing 316L SS
- Stem Length: 10 - 31.5 ft. (3.05 - 9.60 m)

Electrical

- Electrical Connection: Terminal Block, 12-24 VDC
- Typical current draw: Modbus (RS-485): 25 mA
- Reverse polarity protection
- Surge protection (IEC 61000-4-5)

Connectivity

- Output: Modbus RTU (RS-485), Temperature output

Certification

- IP65
- CSA: Rated 12-24 VDC; 80 mA; Ta 85°C
Class I, Division 1 & 2, Groups C & D T4
Ex d IIB T4
Ex nA IIB T4
Class I, Zone 1; AEx d IIB T4
Class I, Zone 2; AEx nA IIB T4

MODEL CONFIGURATION OPTIONS

Model Number: MPX - $\frac{R}{A}$ $\frac{5}{B}$ - $\frac{\quad}{C}$ - $\frac{\quad}{D}$ $\frac{\quad}{E}$ - $\frac{\quad}{F}$ $\frac{\quad}{G}$ $\frac{\quad}{H}$ $\frac{B}{I}$ - $\frac{\quad}{J}$ - $\frac{AP}{K}$

A. Stem Type

- R** 1 in. diameter, rigid

B. Output

- 5** Modbus RTU, surge protection, Digital Temp Sensors

C. Housing Type

All Housing Die-cast Aluminum, NEMA 4X, IP65, Blue

- ▲** Large Housing (3/4" conduit connections)
- A** Small Housing (1/2" conduit connections)

D. Float 1 (Top Float)

- Z/Y** 5.5h x 3d in. Red Polyurethane (0.65/0.94 SG)
- X/W** 5 in. Round 316L SS (0.52/0.92 SG)
- V/U** 6h x 3d in. Oval 316L SS (0.58/0.94 SG)
- T/S** 3 in. Round 316L SS (0.60/0.94 SG)
- M/L** 5.5h x 2d in. Red Polyurethane (0.57/0.94 SG)
- J/I** 5h x 3d in. Oval Titanium (0.60/0.94 SG)
- N** None

E. Float 2 (optional)

- N** None
- Y** 5.5h x 3d in. Blue Polyurethane (0.94 SG)
- W** 5 in. Round 316L SS (0.92 SG)
- U** 6h x 3d in. Oval 316L SS (0.94 SG)
- S** 3 in. Round 316L SS (0.94 SG)
- L** 5.5h x 2d in. Blue Polyurethane (0.94 SG)
- I** 5h x 3d in. Oval Titanium (0.94 SG)

F. Mounting Type

- P▲** NPT Plug 150#
- N** None

G. Mounting Size

- 2▲** 2 in. (welded or slide connection)
- 3** 3 in. (slide connection only)
- N** None

H. Mounting Connection

- W** Welded (fixed)
- S** Slide with Compression Fitting (adjustable)

▲Note: This option is standard

I. Stem/Finish Material

- B** 316L SS

J. Total Stem Length in Inches

- __** Min. 120 in. - Max. 378 in.

K. Digital Temperature Sensors

- AP** Sensor Quantity and Placement per API 18.2 Standard

MPX ACCESSORIES

Please order separately, by part number.

Description	Part Number
Programming Module	
RST-6001 (Modbus)	125734
sold with 6 ft USB cable	



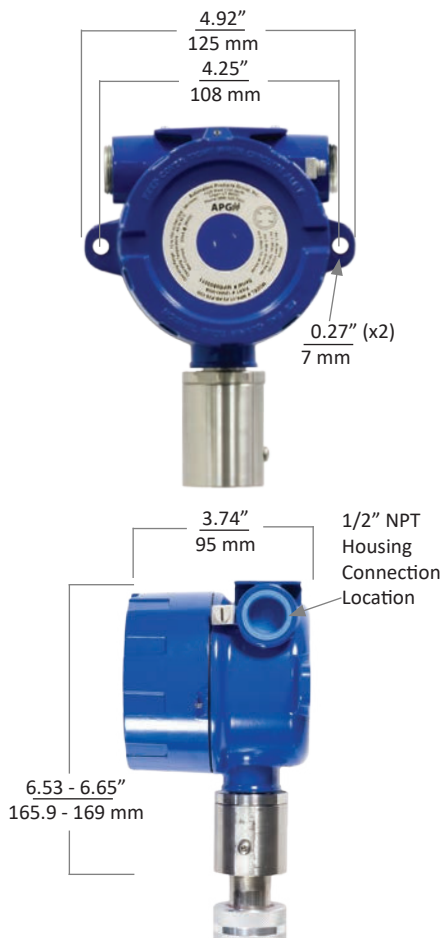
MPX-T SPECIFICATIONS

MPX-T Floats

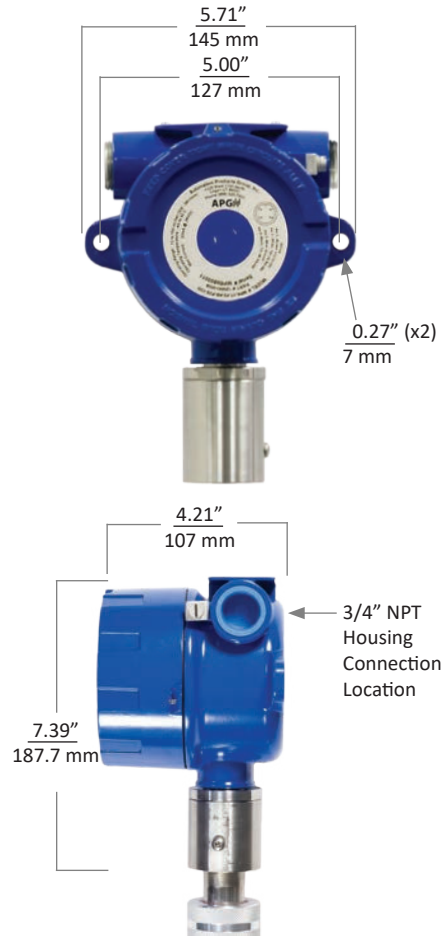
Floats I, J



Small Housing



Large Housing



Performance

- Resolution: Modbus: 0.04 in. (1 mm)
- Accuracy: Distance: ± 0.04 in. (1 mm) over range
Temp Sensors: $\pm 0.25^\circ\text{C}$ over $-40^\circ - 85^\circ\text{C}$
 $\pm 0.13^\circ\text{C}$ over $+20^\circ - 70^\circ\text{C}$

Programming

- RS-485: optional RST-6001 USB to RS-485 converter

Environmental

- Operating Temperature: $-40^\circ - 85^\circ\text{C}$ ($-40^\circ - 185^\circ\text{F}$)
- IP65

Physical

- Housing: Cast aluminum, epoxy coated
- Stem: 1.0" \varnothing Titanium 2
- Stem Length: 10 - 25 ft. (3.05 - 7.62 m)

Electrical

- Electrical Connection: Terminal Block, 12-24 VDC
- Typical current draw: Modbus (RS-485): 25 mA
- Reverse polarity protection
- Surge protection (IEC 61000-4-5)

Connectivity

- Output: Modbus RTU (RS-485), Temperature output

Certification

- IP65
- CSA: Rated 12-24 VDC; 80 mA; Ta 85°C
Class I, Division 1 & 2, Groups C & D T4
Ex d IIB T4
Ex nA IIB T4
Class I, Zone 1; AEx d IIB T4
Class I, Zone 2; AEx nA IIB T4

MODEL CONFIGURATION OPTIONS

Model Number: MPX - $\frac{T}{A}$ $\frac{5}{B}$ $\frac{C}{C}$ - $\frac{D}{D}$ $\frac{E}{E}$ - $\frac{F}{F}$ $\frac{G}{G}$ $\frac{S}{H}$ $\frac{T}{I}$ - $\frac{J}{J}$ - $\frac{AP}{K}$

A. Stem Type

- T** 1 in. diameter Titanium 2

B. Output

- 5** Modbus RTU, surge protection, Digital Temp Sensors

C. Housing Type

All Housing Die-cast Aluminum, NEMA 4X, IP65, Blue

- ▲** Large Housing (3/4" conduit connections)
- A** Small Housing (1/2" conduit connections)

D. Float 1 (Top Float)

- J/I** 5h x 3d in. Oval Titanium (0.60/0.94 SG)
- N** None

E. Float 2 (optional)

- N** None
- I** 5h x 3d in. Oval Titanium (0.94 SG)

F. Mounting Type†

- P▲** NPT Plug 150#
- N** None

G. Mounting Size

- 2▲** 2 in. (slide connection only)
- 3** 3 in. (slide connection only)
- N** None

H. Mounting Connection

- S** Slide with Compression Fitting (adjustable)

▲Note: This option is standard

†Note: All listed Mounting Types are 316L stainless steel. Consult factory regarding additional options.

I. Stem/Finish Material

- T** Titanium 2

J. Total Stem Length in Inches

- __** Min. 120 in. - Max. 300 in.

K. Digital Temperature Sensors

- AP** Sensor Quantity and Placement per API 18.2 Standard

Tank Cloud



Put Your Tanks In The Cloud

1 Remote Sensors

Connect to any 4-20mA signal or APG Modbus sensor for constant access to your data. Access up to 10 sensors on a single connection.

2 Use the Internet Backbone

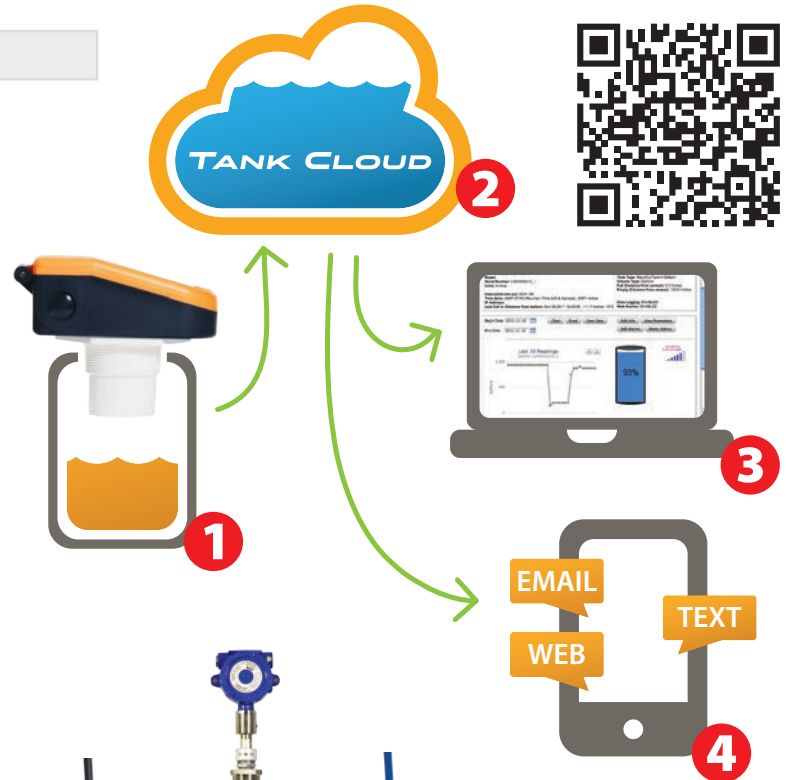
Connect the APG sensor or module to the Internet via landline, radio, cellular, or satellite.

3 View Secure Data 24/7

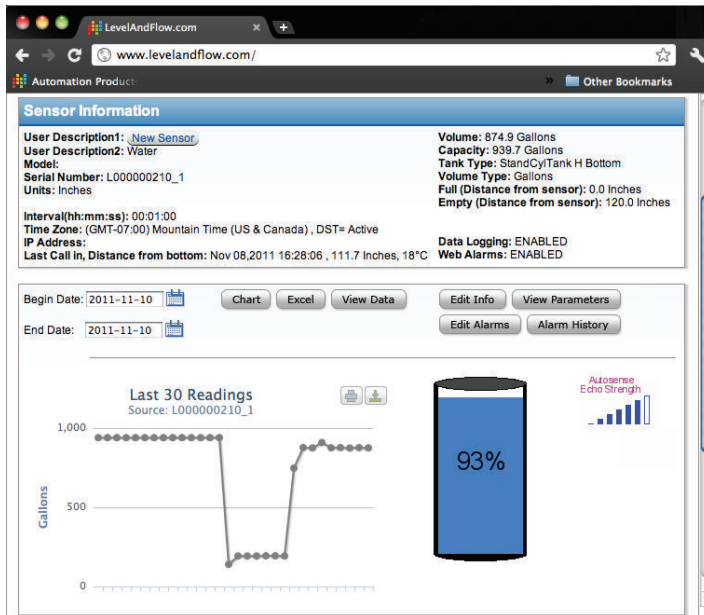
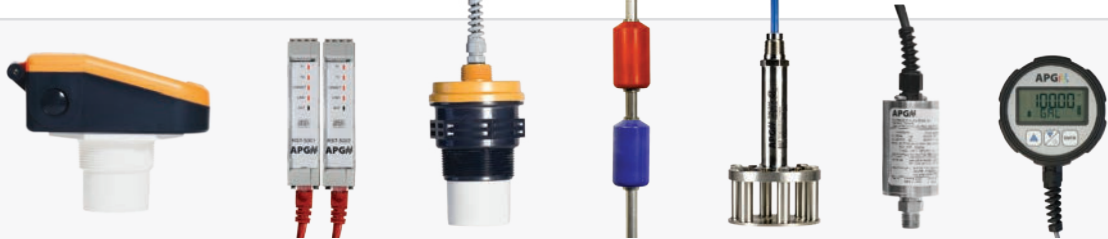
Access sensor data online through our secure portal at levelandflow.com. If the Internet is accessible, so is your information.

4 Stay Up-To-Date

Program custom alarms - receive email and text (sms) message alerts on your computer, mobile phone, or tablet.



The Line-Up:



Online Data Portal

The Tank Cloud data portal, located online at www.levelandflow.com, displays everything you need to know about your measurement.

Here you can:

- View your current and past readings,
- Manage alarms,
- Configure your sensors,
- and Setup user permissions for others in your organization.

Measurements are sorted by location and grouped into sites. Simply select the site you would like to view, and then choose the sensor. Current readings are prominent in the center of the screen.

Contact us today at 888-525-7300 to set-up a demonstration of our sensors and online software. We are excited to show you how it can impact your business.