Explosion Proof and Non-Incendive APG **Magnetostrictive Level Sensors Series: MPX**





The MPX Series Magnetostrictive Level sensor provides highly accurate and repeatable level readings in a wide variety of liquid level measurement applications. The MPX-R's large, buoyant, and robust float allows it to be used in harsh applications where fouling or buildup might otherwise be of concern. The MPX-E's lighter weight design allows it to be used in applications where space is limited. The fiberglass stem of the MPX-G expands the already impressive chemical compatibility of the MPX. And the MPX-F's flexible stainless steel stem allows for accurate measurements in environments that are not straight-forward.

Features

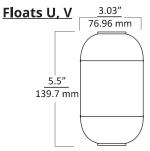
- Class 1 Division 1 Groups C & D, Class 1 Zone 1, Class 1 Zone 2
- Highly accurate and repeatable readings
- 4-20 mA, RS-485 (Modbus RTU) output
- Rugged and reliable, lengths up to 32 feet (9.75 m)
- Dual level (interface) measurement
- Tank volume/level, strapping table



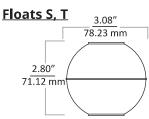
MPX-F Specifications

MPX-F Floats



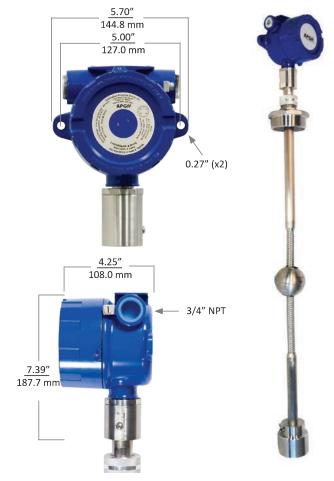














· Resolution:

4-20 mA: 14 bit DAC Modbus: 0.04 in. (1mm)

• Accuracy: ±0.05% of full scale

See Programming

- RS-485: optional RST-6001USB to RS-485 converter
- 4-20 mA: factory set or optional RST-4100 programming module.



- Operating Temperature: -40° 185°F (-40° 85°C)
- NEMA 4X, IP65

Physical

- Housing: Cast aluminium, epoxy coated
- Stem: 7/8" ø Flexible Tubing with Braid, 316L SS
- Stem Length: 10 32 ft. (3.05 9.75 m)
- Float Sleeve (Floats P & R only): .035" thick Titanium 2



- Electrical Connection: Terminal Block, 12-24 VDC
- Total current draw:

 4-20 mA: (single) 22 mA, (dual) 44 mA
 Modbus (RS-485): 28 mA

Connectivity

· Output:

Single or dual loop-powered 4-20 mA Modbus RTU (RS-485) with Temperature output



- NEMA 4X, IP65
- CSA:

Class I Division 2 Groups C & D T4 (Ta 85°C) Class I, Zone 2; AEx nA IIB T4 Ex nA IIB T4



Model Configuration Options

Model Number: MPX - F A. Stem Type **G. Mounting Size** 7/8 in. diameter Flexible Tubing with Braid, 316L SS Available in 0.5" increments from 2" to 4", and 1" incre- \Box F ___ ments from 4" to 6" **B.** Output □ 1 Modbus RTU w/ stem RTD temperature sensor **H. Mounting Connection** Single float, 4-20 mA (loop powered, 2 wire) □ 2 \square W Welded (fixed) Dual float, 4-20 mA (loop powered, 3 wire) □ 3 Slide with Compression Fitting (adjustable) □ S Modbus RTU, surge/lightning protection, stem RTD □ 4 temperature sensor I. Stem Material □ B 316L SS Note: stem RTDs are located 6" from bottom of probe C. Housing Type J. Total Stem Length in Inches All Housing Die-cast Aluminum, NEMA 4X, IP68, Blue Min. 120 in. - Max. 384 in. Large Housing with window L. Float Stop Options D. Float 1 (Top Float) □ ___ 1 in. Stem, 316L SS, 1 piece, 1.5 in. OD 5.5h x 3d in. Red Polyurethane (0.65 SG) 1 in. Stem, 316L SS, 2 piece, 1.75 in. OD \square Y 5.5h x 3d in. Blue Polyurethane (0.94 SG) 1 in. Stem, Titanium 2, 1 piece, 1.5 in. OD \Box **D** 5 in. Round 316L SS (0.52 SG) \square X 5 in. Round 316L SS (0.92 SG) M. Weights \sqcap W 6h x 3d in. Oval 316L SS (0.58 SG) □ **W1** 5lb weight, Standard for MPX-F 12 ft or shorter 6h x 3d in. Oval 316L SS (0.94 SG) □ **W2** 10lb weight, Standard for MPX-F longer than 12 ft 3 in. Round 316L SS (0.60 SG) **N. Temperature Sensor Options** 3 in. Round 316L SS (0.94 SG) □ S MPX-F1 5.5h x 2.8d in. Red Polyurethane (0.59 SG) \square R □ **T__** Specify location of stem RTD in inches from bottom of 5.5h x 2.8d in. Blue Polyurethane (0.94 SG) □ P probe (6" is standard location) 5.5h x 2d in. Red Polyurethane (0.57 SG) \square M MPX-F4 \Box L 5.5h x 2d in. Blue Polyurethane (0.94 SG) □ **T**__ Specify location of stem RTD in inches from bottom of None \square N probe (6" is standard location) Other E. Float 2 (optional) □ **1T**_ Digital Temperature Sensor A (no RTD) and location from bottom of probe in inches None \square N Digital Temperature Sensors A (no RTD), B and loca-□ 2T_ \square Y 5.5h x 3d in. Blue Polyurethane (0.94 SG) tions from bottom of probe in inches 5 in. Round 316L SS (0.92 SG) \square W Digital Temperature Sensors A (no RTD), B, C and loca-□ 3T 6h x 3d in. Oval 316L SS (0.94 SG) tions from bottom of probe in inches □ P 5.5h x 2.8d in. Blue Polyurethane (0.94 SG) Digital Temperature Sensors A (no RTD), B, C, D and □ 4T_ 5.5h x 2d in. Blue Polyurethane (0.94 SG) locations from bottom of probe in inches Digital Temperature Sensors A (no RTD), B, C, D, E and Other □ 5T_ locations from bottom of probe in inches F. Mounting Option Flat Face ANSI Flange 150# N. 4-20 Output Set Points \Box F MPX-F2/F3 Raised Face Flange 150# \square R ☐ **A**__ 4mA set point location, in inches from bottom of probe □ S 3A Sanitary ferrule □ **B**__ 20mA set point location, in inches from top of probe NPT Plug 150# □ P None \square N ▲This option is standard



Other

Tank Cloud

Put Your Tanks In The Cloud

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.

Use the Internet Backbone

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

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.

Stay Up-To-Date

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





Online Data Portal

TANK CLOUD

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

WEB

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.

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