

The

MPX SERIES

Explosion Proof Magnetostrictive Level Sensors



MPX-E

MPX-E Chem

MPX-F

MPX-R

MPX-T



The MPX Series Magnetostrictive Level Sensor provides highly accurate repeatable level readings in a wide variety of liquid level measurement applications.

MPX-E

Explosion Proof Magnetostrictive Level Sensor

Rev. H 08/2024

Document #9004570; Part #125816-0019



PRECISE, COMPACT, VERSATILE

The MPX-E's light-weight design allows it to be used in applications where space is limited. The MPX-E carries Class I, Division 1 & 2 and Class I, Zone 1 & 2 approvals for use throughout the North America.

Hazardous Area Certification

Certified for Class I Division 1 Groups C & D, Class I Zone 1, and Class I Zone 2, ensuring safe operation in hazardous environments with combustible gases or vapors.

Versatile Output Integration

Offers 4-20 mA and RS-485 (Modbus RTU) outputs for seamless integration into PLCs, SCADA systems, and industrial automation platforms.

Comprehensive Measurement

Enables dual level (interface) measurement and calculates tank volumes using strapping tables, supporting accurate inventory management and operational planning.

Precision & Consistency

Delivers highly accurate and repeatable readings, crucial for precise tank level monitoring and interface detection between liquids.

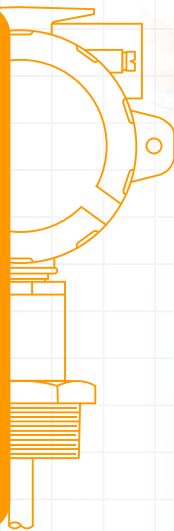
Durability & Longevity

Rugged design measures up to 12.75 feet (3.9 m), ensuring reliable performance in diverse industrial environments with minimal maintenance.



APPLICATIONS

- C I, D 1 Hazardous Locations
- Storage Tanks
- Fuel Tanks
- Oil/Water Interface Measurement
- Industrial Effluent
- Power Generation
- Water & Wastewater Treatment
- Biotech
- Oil & Gas
- Petrochemical
- Chemical



Performance

- Resolution:
 - 4-20 mA: 14 bit DAC (1 mm)
 - Modbus: 0.04 in. (1 mm)
- Distance Accuracy:
 - 4-20 mA Modbus:
Greater of $\pm 0.05\%$ of FS or 1 mm
- Temperature Accuracy:
 - RTD—1k Ohm: $\pm 1^\circ\text{C}$

Programming

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

Environmental

- Probe Operating Temperature: -40° – 85°C (-40° – 185°F)
- IP65

Physical

- Housing: Cast aluminum, epoxy coated
- Stem: 0.5" \varnothing 316L SS
- Stem Length: 1–12.75 ft. (0.3–3.9m)

Electrical

- Electrical Connection: Terminal Block, 12–24 VDC
- Typical current draw:
 - 4-20 mA: (single) 4–22 mA, (dual) 8–44 mA
 - Modbus (RS-485): 25 mA
- Reverse polarity protection
- Surge protection (Output 4 only)

Connectivity

- Output
 - Single or dual loop-powered 4-20 mA
 - Set points:
 - 4 mA, probe bottom.
 - 20 mA, 6 in. below probe zero point or at customer specified point
 - Modbus RTU (RS-485), optional temperature output

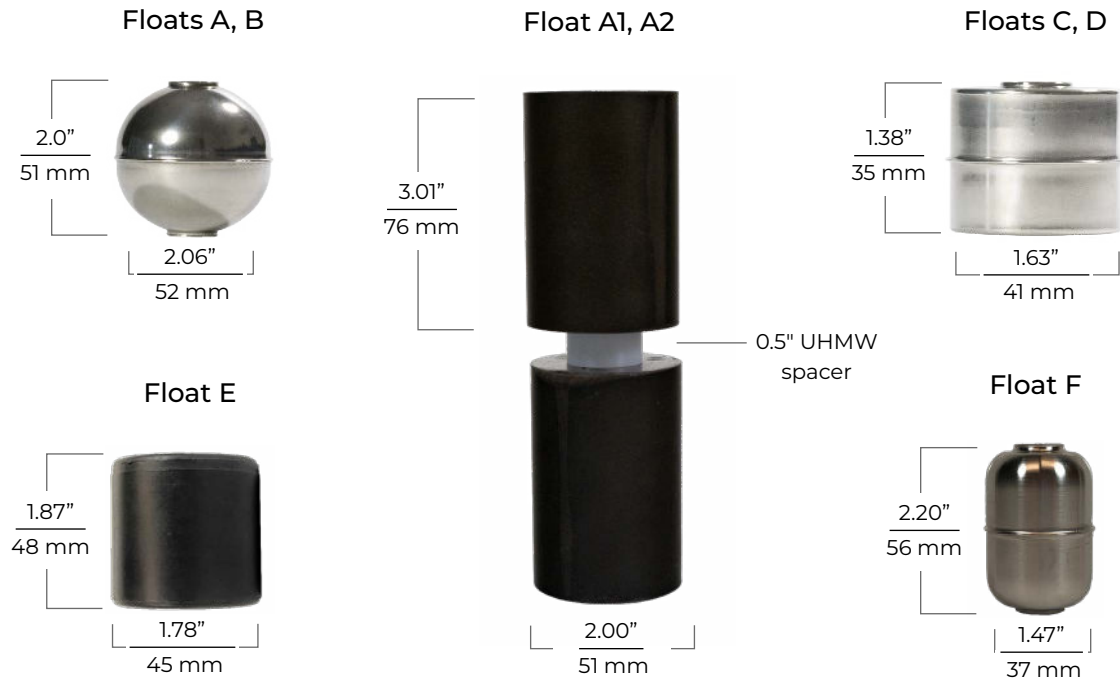
Certification

- CSA:
 - Rated 12-24 VDC; 4-20 mA or 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

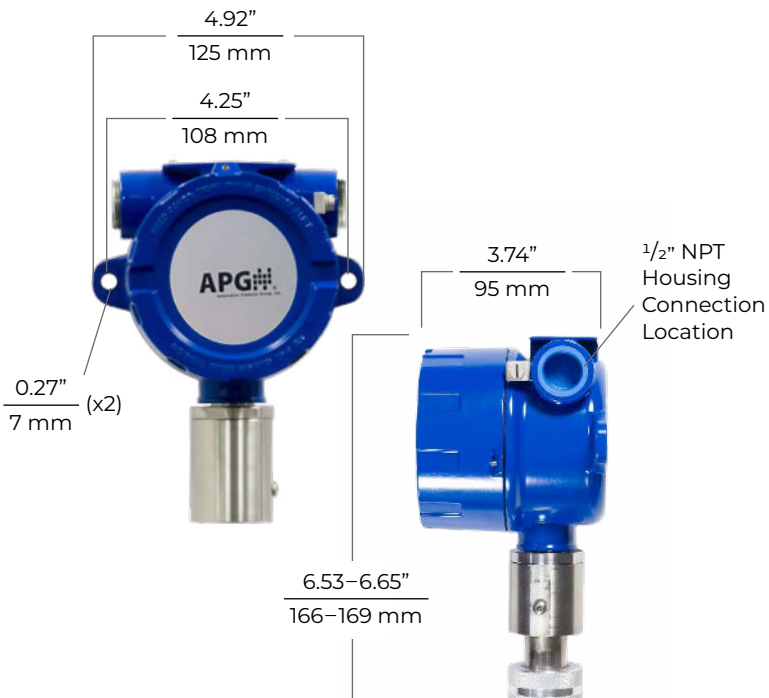


MPX-E Specifications

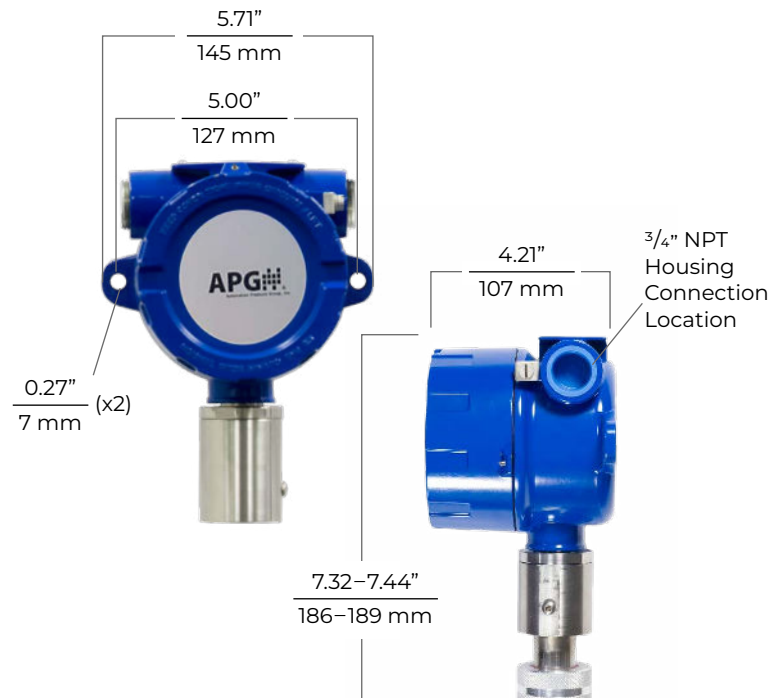
MPX-E Floats



Small Housing



Large Housing



Model Configuration Options

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

A. Stem Type

- E 0.5 in. diameter 316L SS

B. Output

- 2 Single float, 4-20 mA (loop powered, 2 wire)
- 3 Dual float, 4-20 mA (loop powered, 3 wire)
- 4 Modbus RTU, surge protection

C. Housing Type

All Housing Die-cast Aluminum, IP65, Blue

- _ Large Housing*
- A Small Housing**

D. Float 1 (Top Float)

- A 316L SS Round (0.65 SG)
- A1/A2 2D x 3H Buna-N Low Level Floats (0.22 SG/0.92 SG)
- B 316L SS Round (0.92 SG)
- C 316L SS Cylindrical (0.65 SG)
- D 316L SS Cylindrical (0.92 SG)
- E Buna-N (0.5 SG)
- F 316 SS 3A Cylindrical (0.5 SG)

E. Float 2 (Optional)

- N None
- B 316L SS Round (0.92)***

F. Mounting Type

- P NPT Plug 150#*
- N None

G. Mounting Size

- 1.5 1.5 in. (welded or slide connection)
- 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)

I. Stem/Finish Material

- B 316L SS

J. Total Stem Length in Inches

- _ Min. 12 in. - Max 153 in.

K. Optional Temperature Sensor

MPX-E4

- N None*
- T Stem RTD, 1 K Ω , 6 in. from bottom of probe

Note

- * This option is standard
- ** Small housing only available with Modbus RTU (Output 4)
- *** Float 2 option B requires Float 1 option A

MPX Accessories

Please order separately, by part number.

| Description | Part Number |
|-----------------------------------|-------------|
| Programming Module | |
| RST-6001 (Modbus: MPX-x4) | 125734 |
| RST-4100 (4-20mA: MPX-x2, MPX-x3) | 125759 |
| Sold with 6 ft. USB cable | |

Disclaimer: Please note that selecting certain options may limit or eliminate the availability of other options, as some floats and accessories are only compatible with a select number of configurations. For further configuration assistance, please contact our sales team at (435) 753 - 7300.



MPX-E CHEM

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YOUR SOLUTION FOR ANY LIQUID

The MPX-E Chemical has a chemical resistant sleeve, allowing for use in corrosive, acidic, and even marine environments. The MPX-E Chem carries Class I, Division 1 & 2 and Class I, Zone 1 & 2 approvals for use throughout North America.

Hazardous Area Certification

Certified for Class I Division 1 Groups C & D, Class I Zone 1, and Class I Zone 2, ensuring safe operation in hazardous environments with combustible gases or vapors.

Versatile Output Integration

Offers 4-20 mA and RS-485 (Modbus RTU) outputs for seamless integration into PLCs, SCADA systems, and industrial automation platforms.

Comprehensive Measurement

Enables dual level (interface) measurement and calculates tank volumes using strapping tables, supporting accurate inventory management and operational planning.

Precision & Consistency

Delivers highly accurate and repeatable readings, crucial for precise tank level monitoring and interface detection between liquids.

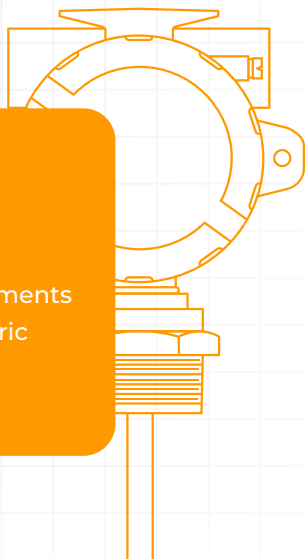
Durability & Longevity

Rugged design measures up to 12.75 feet (3.9 m), ensuring reliable performance in diverse industrial environments with minimal maintenance.



APPLICATIONS

- C I, D 1 Hazardous Locations
- Corrosive Chemicals
- Marine (Salt Water) Environments
- Sulfuric, Boric, or Hydrochloric Acids
- Sodium Hydroxide



Performance

- Resolution:
 - 4-20 mA: 14 bit DAC (1 mm)
 - Modbus: 0.04 in. (1 mm)
- Distance Accuracy:
 - 4-20 mA Modbus:
Greater of $\pm 0.05\%$ of FS or 1 mm
- Temperature Accuracy:
 - RTD—1k Ohm: $\pm 1^\circ\text{C}$

Programming

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

Environmental

- Probe Operating Temperature: $-40^\circ\text{--}85^\circ\text{C}$ ($-40^\circ\text{--}185^\circ\text{F}$)
- Float Maximum Operating Pressure: 30 PSIA @ $70^\circ\text{F} / 21^\circ\text{C}$
- IP65

Physical

- Housing: Cast aluminum, epoxy coated
- Stem: 0.67" \varnothing PVDF (rigid)
- Stem Length: 1–12.75 ft. (0.3–3.9m)
- Float: 2" \varnothing PVDF, 0.65 SG or 0.94 SG

Electrical

- Electrical Connection: Terminal Block, 12–24 VDC
- Typical current draw:
 - 4-20 mA: 4-22 mA
 - Modbus (RS-485): 25 mA
- Reverse polarity protection
- Surge protection (Output 4 only)

Connectivity

- Output
 - Loop-powered 4-20 mA
 - Set points:
 - 4 mA, probe bottom.
 - 20 mA, 6 in. below probe zero point or at customer specified point
 - Modbus RTU (RS-485), optional temperature output

Certification

- CSA:
 - Rated 12–24 VDC; 4-20 mA or 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



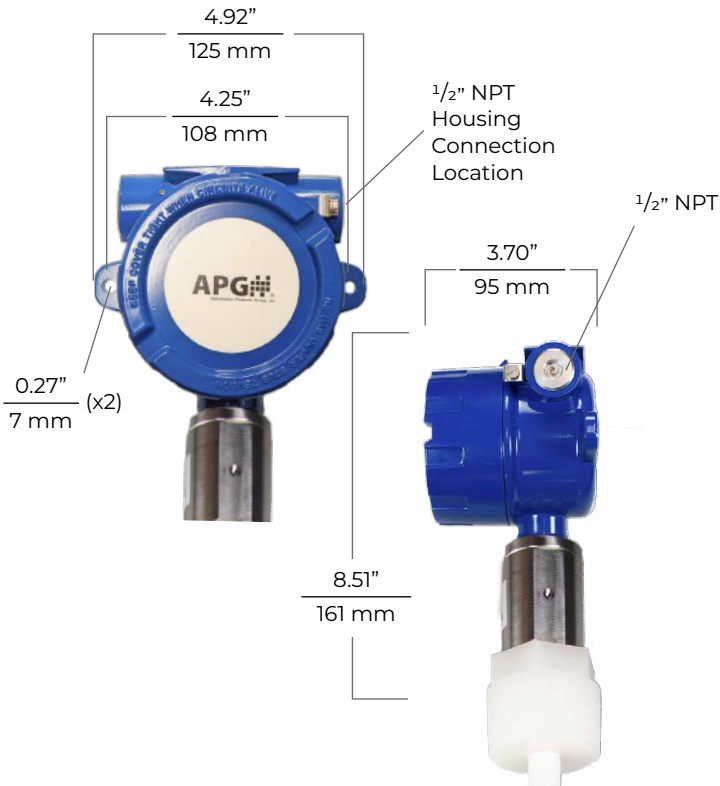
MPX-E Chem Specifications

MPX-E Chemical Float

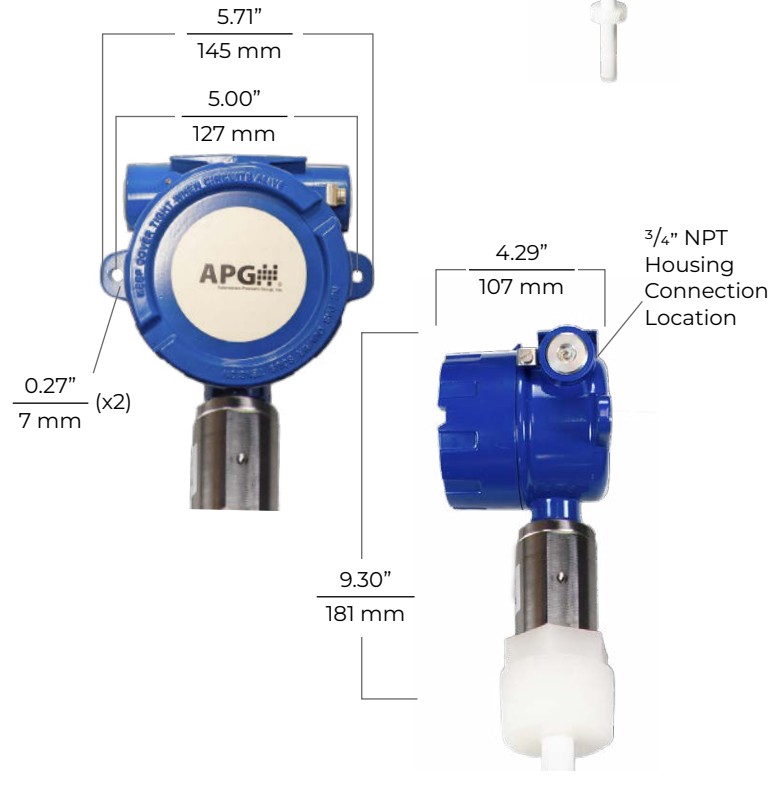
Float K1, H



Small Housing



Large Housing



Model Configuration Options

Model Number: MPX - $\frac{E}{A} \frac{B}{B} \frac{C}{C} - \frac{D}{D} \frac{E}{E} - \frac{P}{F} \frac{2}{G} \frac{W}{H} \frac{N}{I} - \frac{J}{J} - \frac{K}{K}$

A. Stem Type

- E 0.5 in. diameter 316L SS

B. Output

- 2 Single float, 4-20 mA (loop powered, 2 wire)
- 3 Dual float, 4-20 mA (loop powered, 3 wire)
- 4 Modbus RTU, surge protection

C. Housing Type

All Housing Die-cast Aluminum, IP65, Blue

- _ Large Housing*
- A Small Housing**

D. Float 1

- K1 3.5h x 2d in. PVDF (0.65 SG Max)*
- H 3.5h x 2d in. PVDF (0.94 SG Max)

E. Float 2

- N None*
- H 3.5h x 2d in. PVDF (0.94 SG)

F. Mounting Type

- P NPT Plug

G. Mounting Size

- 2 Size 2

H. Mounting Connection

- W Welded (fixed)

I. Stem/Finish Material

- N 0.67" diameter PVDF Sleeve

J. Total Stem Length in Inches

- _ Min. 12 in. – Max. 153 in.*

K. Optional Temperature Sensor

MPX-E4

- N None*
- T4 Stem RTD, 1 K Ω , 4 in. from bottom of probe
- T6 Stem RTD, 1 K Ω , 6 in. from bottom of probe

Note

* This option is standard

** Small housing only available with Modbus RTU (Output 4)

*** The Kynar stem is susceptible to thermal expansion when the process temperature exceeds 73°F / 23°C. This expansion can be calculated as follows: Expansion = (Max Process Temperature ((°F) – 73) * .000108 * Kynar Stem Length). This is the distance that must be left between the end of the Kynar stem and the tank bottom at the maximum process temperature. Please account for this expansion by reducing the stem length to allow for this gap when installed. The gap is zero if the process temperature is less than or equal to 73°F.

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MPX-F

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STREAMLINE TANK MEASUREMENT

The MPX-F is designed for effortless installation in tall tanks, thanks to its 316L stainless steel flexible tubing with a braided system. The MPX-F carries Class I, Division 2 and Class I, Zone 2 approvals for use throughout North America.

Hazardous Area Certification

Certified for Class I Division 2 Groups C & D, and Class I Zone 2, ensuring safe operation in hazardous environments with combustible gases or vapors.

Versatile Output Integration

Offers 4-20 mA and RS-485 (Modbus RTU) outputs for seamless integration into PLCs, SCADA systems, and industrial automation platforms.

Comprehensive Measurement

Enables dual level (interface) measurement and calculates tank volumes using strapping tables, supporting accurate inventory management and operational planning.

Precision & Consistency

Delivers highly accurate and repeatable readings, crucial for precise tank level monitoring and interface detection between liquids.

Durability & Longevity

Rugged design measures up to 32 feet (9.75 m), ensuring reliable performance in diverse industrial environments with minimal maintenance.





APPLICATIONS

- C I, D 2 Hazardous Locations
- Tall Tanks
- Oil / Water Interface Measurements
- Water Treatment
- Reduced Shipping Cost



Electrical

- Electrical Connection: Terminal Block, 12-24 VDC
- Typical Current Draw:
 - 4-20 mA: (single) 4-22 mA, (dual) 8-44 mA
 - Modbus (RS-485): 28 mA
- Reverse polarity protection
- Surge protection (Output 4 only)

Connectivity

- Output
 - Single or dual loop-powered 4-20 mA
 - Set points:
 - 4 mA, probe bottom.
 - 20 mA 10 in. below probe zero point or at customer specified point
 - Modbus RTU (RS-485), optional temperature output

Certification

- CSA:
 - Rated 12-24 VDC; 4-20 mA or 80 mA; Ta 85°C
 - Class I, Division 2, Groups C & D T4
 - Ex nA IIB T4
 - Class I, Zone 2; AEx nA IIB T4

Performance

- Resolution:
 - 4-20 mA: 14 bit DAC (1 mm)
 - Modbus: 0.04 in. (1 mm)
- Distance Accuracy:
 - 4-20 mA, Modbus:
Greater of +/- 0.05% of FS or 1 mm
- Temperature Accuracy:
 - RTD—1K Ohm: $\pm 1^{\circ}\text{C}$
 - Digital Temp Sensor: $\pm 1^{\circ}\text{C}$

Programming

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

Environmental

- Operating Temperature: -40° – 185° F (-40° – 85° C)
- IP65

Physical

- Housing: Cast aluminum, epoxy coated
- Stem: 7/8" \varnothing 316L SS Flexible Tubing with Braid
- Stem Length: 10–32 ft. (1.22–9.75 m)



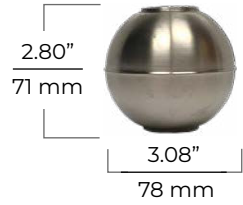
MPX-F Specifications

MPX-F Floats

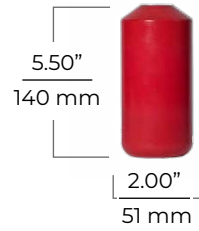
Floats W, X



Floats S, T



Float L, M



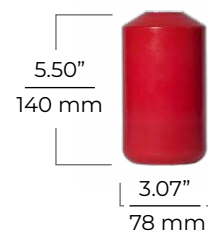
Float I, J



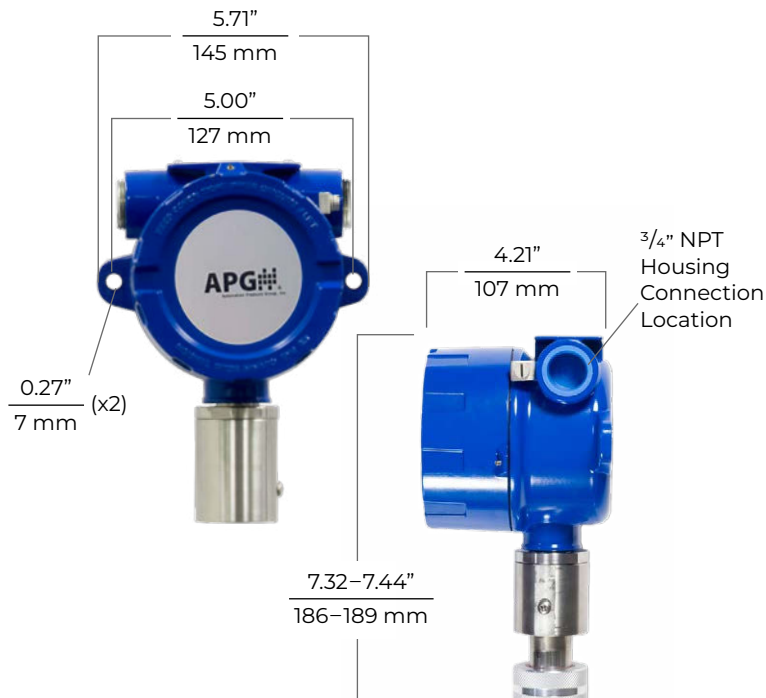
Float U, V



Float Y, Z



Large Housing



Model Configuration Options

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

A. Stem Type

- F 7/8 in. diameter Flexible Tubing with Braid, 316L SS

B. Output

- 2 Single float, 4-20 mA (loop powered, 2 wire)
- 3 Dual float, 4-20 mA (loop powered, 3 wire)
- 4 Modbus RTU, surge/lightning protection, stem RTD temperature sensor

C. Housing Type

All Housing Die-cast Aluminum, NEMA 4X, IP68, Blue

- _ Large Housing*

D. Float 1 (Top Float)

- Z 5.5h x 3d in. Red Polyurethane (0.65 SG)
- Y 5.5h x 3d in. Blue Polyurethane (0.94 SG)
- X 5 in. Round 316L SS (0.52 SG)
- W 5 in. Round 316L SS (0.92 SG)
- V 6h x 3d in. Oval 316L SS (0.58 SG)
- U 6h x 3d in. Oval 316L SS (0.94 SG)
- T 3 in. Round 316L SS (0.60 SG)
- S 3 in. Round 316L SS (0.94 SG)
- J 5h x 3d in. Oval Titanium (0.60 SG)
- I 5h x 3d in. Oval Titanium (0.94 SG)
- M 5.5h x 2d in. Red Polyurethane (0.57 SG)
- L 5.5h x 2d in. Blue Polyurethane (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)

I. Stem/Finish Material

- B 316L SS

J. Total Stem Length in Inches

- _ Min. 120 in. - Max. 384 in.

K. Temperature Sensor Options

Temperature Sensor Options only available with MPX-F4

- T_ Specify location of stem RTD in inches from bottom of probe (6" is standard location)
- N None

Note

* This option is standard

Disclaimer: Please note that selecting certain options may limit or eliminate the availability of other options, as some floats and accessories are only compatible with a select number of configurations. For further configuration assistance, please contact our sales team at (435) 753 - 7300.



MPX-R

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DEPENDABLE FOR TOUGH ENVIRONMENTS

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-R carries Class I, Division 1 & 2 and Class I, Zone 1 & 2 approvals for use throughout North America.

Hazardous Area Certification

Certified for Class I Division 1 Groups C & D, Class I Zone 1, and Class I Zone 2, ensuring safe operation in hazardous environments with combustible gases or vapors.

Versatile Output Integration

Offers 4-20 mA and RS-485 (Modbus RTU) outputs for seamless integration into PLCs, SCADA systems, and industrial automation platforms.

Comprehensive Measurement

Enables dual level (interface) measurement and calculates tank volumes using strapping tables, supporting accurate inventory management and operational planning.

Precision & Consistency

Delivers highly accurate and repeatable readings, crucial for precise tank level monitoring and interface detection between liquids.

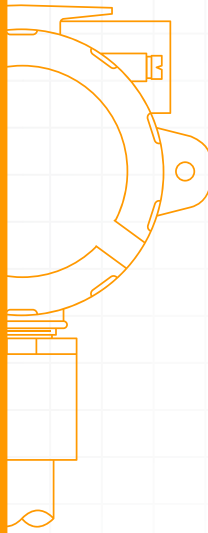
Durability & Longevity

Rugged design measures up to 31.5 feet (9.60 m), ensuring reliable performance in diverse industrial environments with minimal maintenance.



APPLICATIONS

- C I, D 1 Hazardous Locations
- Storage Tanks
- Fuel Tanks
- Oil/Water Interface Measurement
- Thick, Viscous, Sludgy Fluids
- Industrial Effluent
- Power Generation
- Water & Wastewater Treatment
- Pulp & Paper
- Biotech
- Oil & Gas
- Petrochemical
- Chemical



Performance

- Resolution:
 - 4-20 mA: 14 bit DAC (1 mm)
 - Modbus: 0.04 in. (1 mm)
- Distance Accuracy:
 - 4-20 mA Modbus:
Greater of $\pm 0.05\%$ of FS or 1 mm
- Temperature Accuracy:
 - RTD — 1k Ohm: $\pm 1^\circ\text{C}$

Programming

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

Environmental

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

Physical

- Housing: Cast aluminum, epoxy coated
- Stem: 1.0" \varnothing 316L SS
- Stem Length: 4–31.5 ft. (1.22–9.60 m)

Electrical

- Electrical Connection: Terminal Block, 12–24 VDC
- Typical current draw:
 - 4-20 mA: (single) 4-22 mA, (dual) 8-44 mA
 - Modbus (RS-485): 28 mA
- Reverse polarity protection
- Surge protection (Output 4 only)

Connectivity

- Output
 - Single or dual loop-powered 4-20 mA
 - Set points:
 - 4 mA, probe bottom.
 - 20 mA, 10 in. below probe zero point or at customer specified point
 - Modbus RTU (RS-485), optional temperature output

Certification

- CSA:
 - Rated 12–24 VDC; 4-20 mA or 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



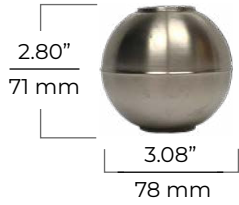
MPX-R Specifications

MPX-R Floats

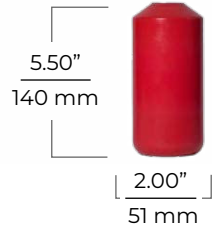
Floats W, X



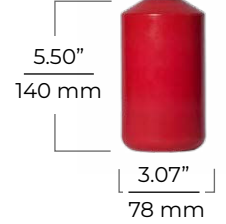
Floats S, T



Float L, M



Float Y, Z



Float I, J



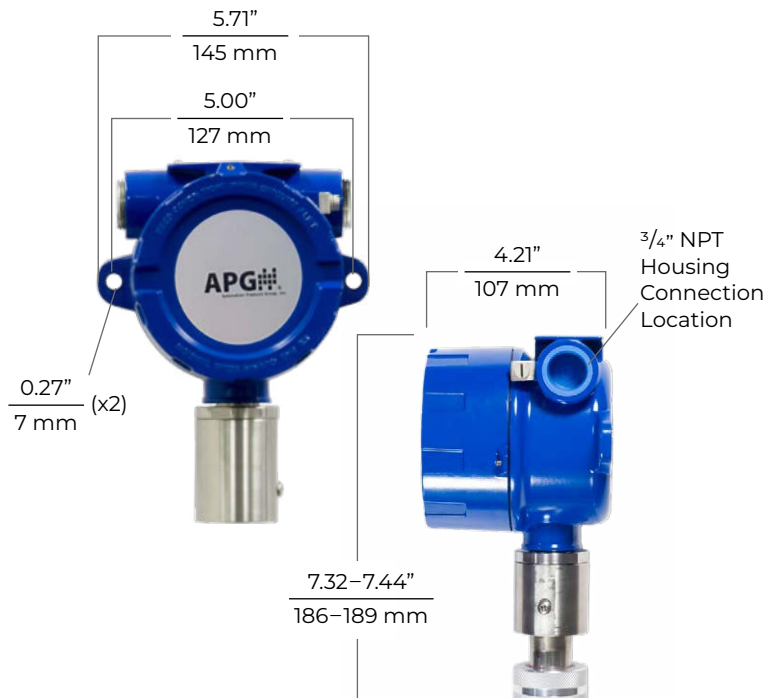
Float U, V



Float A3



Large Housing



Model Configuration Options

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

A. Stem Type

- R 1 in. diameter 316L SS

B. Output

- 2 Single float, 4-20 mA (loop powered, 2 wire)
- 3 Dual float, 4-20 mA (loop powered, 3 wire)
- 4 Modbus RTU, surge protection

C. Housing Type

All Housing Die-cast Aluminum, IP65, Blue

- _ Large Housing

D. Float 1 (Top Float)

- Z 5.5h x 3d in. Red Polyurethane (0.65 SG)
- Y 5.5h x 3d in. Red Polyurethane (0.94 SG)
- X 5 in. Round 316L SS (0.52 SG)
- W 5 in. Round 316L SS (0.92 SG)
- V 6h x 3d in. Oval 316L SS (0.58 SG)
- U 6h x 3d in. Oval 316L SS (0.94 SG)
- T 3 in. Round 316L SS (0.60 SG)
- S 3 in. Round 316L SS (0.94 SG)
- M 5.5h x 2d in. Red Polyurethane (0.57 SG)
- L 5.5h x 2d in. Red Polyurethane (0.94 SG)
- J 5h x 3d in. Oval Titanium (0.60 SG)
- I 5h x 3d in. Oval Titanium (0.94 SG)
- A3 8.75h x 4d in. Cylinder Red Polyurethane (0.65 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 5.5 h 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)

I. Stem/Finish Material

- B 316L SS

J. Total Stem Length in Inches

- _ Min. 48 in.-Max. 378 in.

K. Optional Temperature Sensor

MPX-R4

- N None
- T Stem RTD, 1 K Ω , 6 in. from bottom of probe*

Note

* This option is standard

Disclaimer: Please note that selecting certain options may limit or eliminate the availability of other options, as some floats and accessories are only compatible with a select number of configurations. For further configuration assistance, please contact our sales team at (435) 753 - 7300.



MPX-T

Explosion Proof Magnetostrictive Level Sensor

Rev. H, 08/2024

Document #9004570; Part #125816-0019



PRECISION FOR TOUGH CONDITIONS

The MPX-T's 1" \varnothing titanium stem extends its chemical capabilities for use in rougher, tougher environments, including H_2S . The MPX-T carries Class I, Division 1 & 2 and Class I, Zone 1 & 2 approvals for use throughout North America.

Hazardous Area Certification

Certified for Class I Division 1 Groups C & D, Class I Zone 1, and Class I Zone 2, ensuring safe operation in hazardous environments with combustible gases or vapors.

Versatile Output Integration

Offers 4-20 mA and RS-485 (Modbus RTU) outputs for seamless integration into PLCs, SCADA systems, and industrial automation platforms.

Comprehensive Measurement

Enables dual level (interface) measurement and calculates tank volumes using strapping tables, supporting accurate inventory management and operational planning.

Precision & Consistency

Delivers highly accurate and repeatable readings, crucial for precise tank level monitoring and interface detection between liquids.

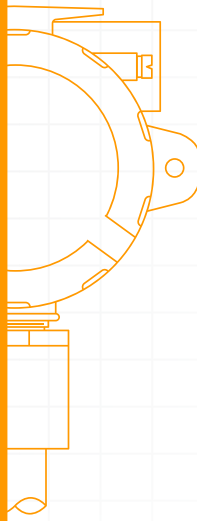
Durability & Longevity

Rugged design measures up to 25 feet (7.62 m), ensuring reliable performance in diverse industrial environments with minimal maintenance.



APPLICATIONS

- C I, D 1 Hazardous Locations
- Storage Tanks
- Fuel Tanks
- Oil/Water Interface Measurement
- Thick, Viscous, Sludgy Fluids
- Industrial Effluent
- Power Generation
- Water & Wastewater Treatment
- Pulp & Paper
- Biotech
- Oil & Gas
- Petrochemical
- Chemical



Performance

- Resolution:
 - 4-20 mA: 14 bit DAC (1 mm)
 - Modbus: 0.04 in. (1 mm)
- Distance Accuracy:
 - 4-20 mA Modbus:
Greater of $\pm 0.05\%$ of FS or 1 mm
- Temperature Accuracy:
 - RTD — 1k Ohm: $\pm 1^\circ\text{C}$

Programming

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

Environmental

- Probe 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: 4 – 25 ft. (1.22 – 7.62 m)

Electrical

- Electrical Connection: Terminal Block, 12–24 VDC
- Typical current draw:
 - 4-20 mA: (single) 4-22 mA, (dual) 8-44 mA
 - Modbus (RS-485): 25 mA
- Reverse polarity protection
- Surge protection (Output 4 only)

Connectivity

- Output
 - Single or dual loop-powered 4-20 mA
 - Set points:
 - 4 mA, probe bottom.
 - 20 mA, 10 in. below probe zero point or at customer specified point.
 - Modbus RTU (RS-485), optional temperature output.

Certification

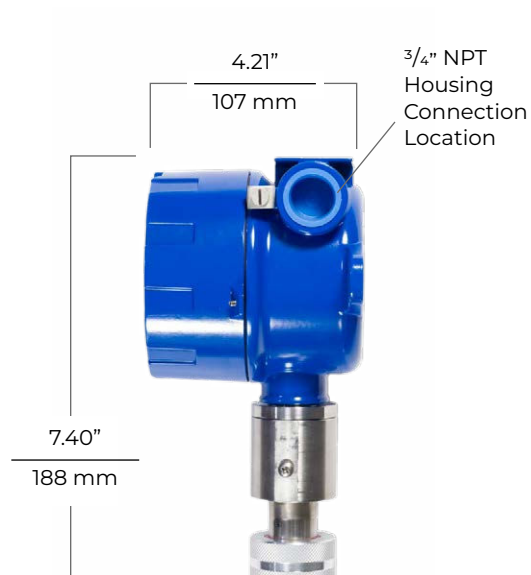
- CSA:
 - Rated 12–24 VDC; 4-20 mA or 80 mA; Ta 85°C
 - Class I, Division 1 & 2, Groups C & D T4
 - Ex d IIB T4
 - Ex nA IIB T4
 - Class I, Zone 1; AEx d IIB T4
 - Class I, Zone 2; AEx nA IIB T4

MPX-T Specifications

MPX-T Floats



Large Housing



Model Configuration Options

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

A. Stem Type

- T 1 in. diameter Titanium

B. Output

- 2 Single float, 4-20 mA (loop powered, 2 wire)
- 3 Dual float, 4-20 mA (loop powered, 3 wire)
- 4 Modbus RTU, surge protection

C. Housing Type

All Housing Die-cast Aluminum, IP65, Blue

- _ Large Housing

D. Float 1 (Top Float)

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

E. Float 2 (Optional)

- N None
- I 5h x3d in. Oval Titanium (0.94 SG)

F. Mounting Type**

- P NPT Plug 150#*
- N None

G. Mounting Size

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

H. Mounting Connection

- S Slide with Compression Fitting (adjustable)

I. Stem/Finish Material

- T Titanium

J. Total Stem Length in Inches

- _ Min. 48 in.-Max. 300 in.

K. Optional Temperature Sensor

MPX-T4

- N None
- T Stem RTD, 1 K Ω , 6 in. from bottom of probe*

Note

* This option is standard

** All listed Mounting Types are 316L stainless steel. Consult factory regarding additional options.

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TANK CLOUD

Put Your Tanks in the Cloud

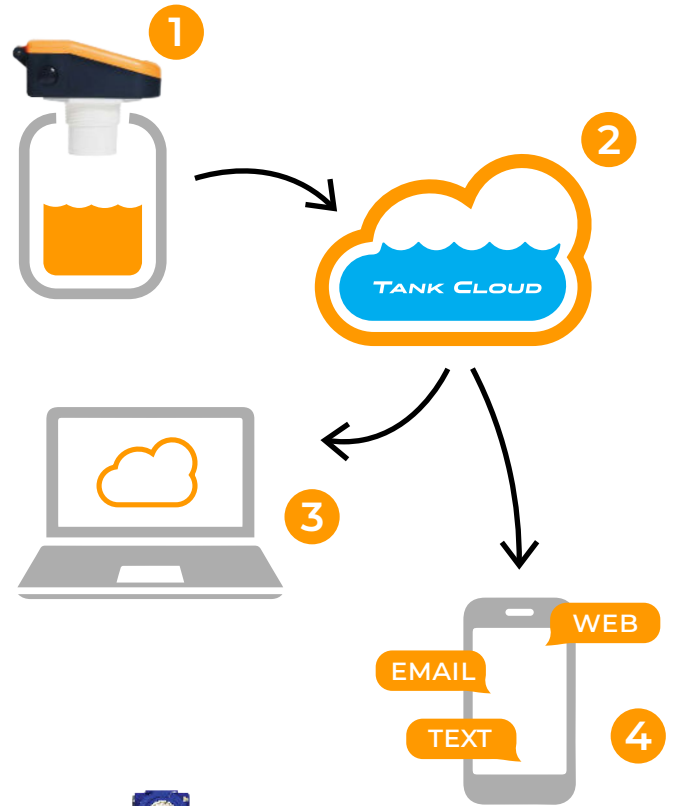
- 1 Remote Sensors**

Connect to any 4-20 mA 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.

