MPI-E

Intrinsically Safe Magnetostrictive Level Sensor

The MPI Series Intrinsically Safe Magnetostrictive Level Sensor provides highly accurate and repeatable level readings in a wide variety of liquid level measurement applications. The MPI-E's lighter-weight design allows it to be used in applications where space is limited.

FEATURES

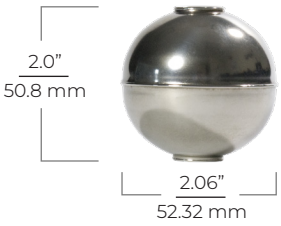
- Class I, Division 1 and Class I, Zone 0 Hazardous Location Rating (cCSAus, ATEX, IECEx)
- Highly accurate and repeatable level and temperature readings
- RS-485 (Modbus RTU) outputs
- Low power
- Rugged and reliable, lengths up to 12.75 feet (3.89 m)
- Dual level (interface) measurement
- Tank volume or level output, strapping table
- Pairs with MDI display for self-contained, intrinsically safe, level measurement and display system

Doc# 9005621 | Part# 200335
Rev. E – 9/2025

Automation Products Group, Inc. | (435) 753 7300 | sales@apgsensors.com | apgsensors.com

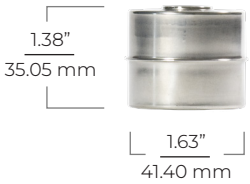
MPI-E SPECIFICATIONS

FLOATS A, B



FLOAT F

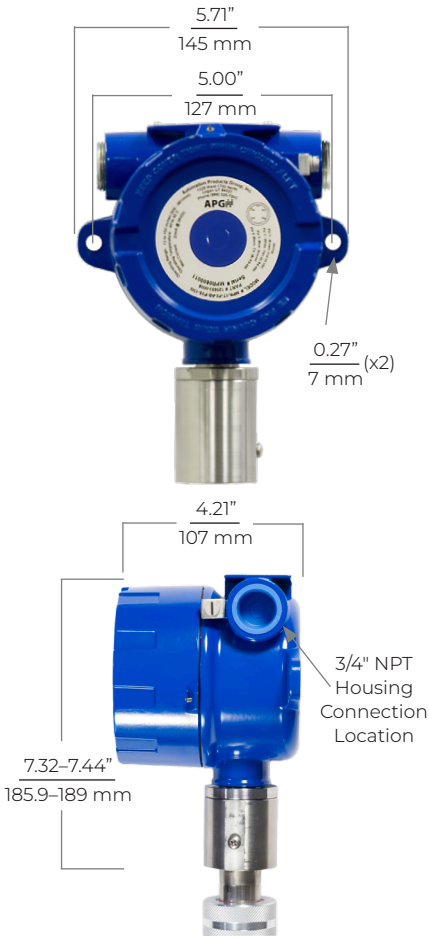
FLOATS C, D



FLOAT E

SMALL HOUSING

LARGE HOUSING



PERFORMANCE

- **Resolution:**
  Modbus: 0.04 in. (1 mm)
- **Distance Accuracy:** ± 0.04 in. (± 1 mm)
- **Temperature Accuracy:** ± 1°C

CONNECTIVITY

- **Output:**
  Modbus RTU (RS-485) with Surge Protection

ENVIRONMENTAL

- **Operating Temp.:** -40°–185°F (-40° – 85°C)
- **NEMA 4X, IP65**

PHYSICAL

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

PROGRAMMING

- **Optional RST-6001 USB to RS-485 converter**

ELECTRICAL

- **Electrical Connection:** Terminal Block, 8–24 VDC
- **Typical Current Draw:** 24 mA
- **Reverse Polarity Protection**
- **Surge Protection (IEC 61000-4-5, 4-6, 4-7)**

CERTIFICATION

- **NEMA 4X, IP65**
- **cCSAus Certificate CSA19CA70219727:**
  - 8–24 VDC, Imax=280 mA
  - Class I, Division 1, Groups C, D T4;
  - Class I, Zone 0; AEx ia IIB T4 Ga; Ex ia IIB T4 Ga, IP65
  - Ta=-40° to 85°C
- **ATEX Certificate Sira 19ATEX2072X:**
  - II 1G
  - Ex ia IIB T4 Ga
  - Ta=-40° to 85°C
- **IECEx Certificate IECEx SIR 19.0026X:**
  - Ex ia IIB T4 Ga
  - Ta=-40° to 85°C

APG

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MODEL CONFIGURATION OPTIONS

MODEL NUMBER: MPI – E 5 ___ – ___ ___ – P ___ ___ B – ___ – ___ – ___ 1 ___

A B C D E F G H I J K L M N

A. Stem Type

☐ E 0.5 in. diameter, rigid

B. Output

☐ 5 Modbus RTU, w/ surge protection, Intrinsically Safe

C. Housing Type

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

☐ A* Small Housing

☐ ___ Large Housing

D. Float 1 (Top Float)

☐ A 316L SS Round (0.65 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 316L SS 3A Cylindrical (0.5 SG)

E. Float 2 (optional)

☐ N None

☐ B 316L SS Round (0.92 SG)**

F. Mounting Type

☐ P* NPT Plug 150#

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)

H. Mounting Connection

☐ S Slide with Compression Fitting (adjustable)

☐ W Welded (fixed)

I. Stem Finish Material

☐ B 316L SS

J. Total Stem Length in Inches

☐ __ Min. 12 in.—Max. 153 in.

***Note:** This option is standard

**** Note:** Must be used with Top Float A

DISCLAIMER: Please note that selecting certain options may limit or eliminate availability of other options, as some floats and accessories are only compatible with a select number of configurations.

MPI ACCESSORIES

Please order separately, by part number.

Description	Part Number
Programming Module	
RST-6001 (Modbus; MPI-x5, MPI-F8 only)	125734
MDI (See MDI Datasheet for Options)	

MODEL CONFIGURATION OPTIONS

MODEL NUMBER: MPI – E 5 ___ – ___ ___ – P ___ ___ B – ___ – ___ – ___ 1 ___

A B C D E F G H I J K L M N

K. Temperature Sensor

☐	N*	None
☐	1D	Digital Temperature Sensor A, 12 in. from bottom of probe
☐	2D	Digital Temperature Sensors A, B
☐	3D	Digital Temperature Sensors A, B, C
☐	4D	Digital Temperature Sensors A, B, C, D
☐	5D	Digital Temperature Sensors A, B, C, D, E
☐	6D	Digital Temperature Sensors A, B, C, D, E, F
☐	7D	Digital Temperature Sensors A, B, C, D, E, F, G

Note: Temperature sensors B–G are spaced evenly between A and the probe's zero reference.

L. Housing Connection

☐	N*	None
☐	B	Cable Gland (Cable sold separately)
☐	F	4-pin M12 Micro Connector Female-90°
☐	C	4-pin M12 Micro Connector Female
☐	M	4-pin M12 Micro Connector Male

M. End Plug

☐	1	Flat End

N. Float Stop

☐	N	None (Available only when no floats are selected)
☐	A1	1 Piece with Set Screw, Bottom Only (With slide connection only)
☐	A2	1 Piece with Set Screws, Top and Bottom (With welded connection only)

***Note:** This option is standard

**** Note:** Must be used with Top Float A

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MPI ACCESSORIES

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SETTLER

Your Gateway to Smarter Monitoring

Settler, APG's next remote monitoring gateway, makes getting real-time level data easier than ever.

Settler seamlessly connects Modbus and 4-20 mA sensors—transmitting encrypted data securely to Explorer, APG's cloud-based interface. View tank and well levels anytime, anywhere, with reliable Ethernet connectivity and robust data security powered by MQTT with AES (Advanced Encryption Standard). Plus, with over-the-air (OTA) firmware updates, your system stays up to date without hassle.

Designed for general-purpose environments, Settler is not intended for use in hazardous areas.

Explorer makes monitoring simple. Access real-time readings, enable datalogging, and set up alarms so you're always informed of critical changes—right from your smartphone, tablet, or desktop.

Save time, reduce costs, and gain peace of mind with remote monitoring powered by Settler and Explorer. Contact us today to learn more or visit apgsensors.com/ settler-remote-monitoring-gateway/.