Thank You

Thanks for purchasing an MPX-T series magnetostrictive level sensor from us! We appreciate your business and your trust. Please take a moment to familiarize yourself with the product and this manual before installation. If you have any questions, at any time, don’t hesitate to call us at 888-525-7300.

### Table of Contents

1. Description
2. How To Read Your Label
3. Warranty
4. Dimensions
5. Installation Guidelines & Instructions
6. Sensor and System Wiring
7. General Care
8. Repair Information
9. Hazardous Location Wiring

---

## Description

The MPX series magnetostrictive level sensor provides highly accurate and repeatable level readings in a wide variety of liquid level measurement applications. It is certified for installation in hazardous areas in the US and Canada by CSA for Class I, Division 1 & 2 and Class I Zones 1 and 2 environments.

## How To Read Your Label

Each label comes with a full model number, a part number, and a serial number. The model number for the MPX will look something like this:

**SAMPLE: MPX-T5B-JI-F4SC-120-3D**

The model number correlates with all the configurable options and tells you exactly what you have. You can also call us with the model, part, or the serial number and we can help you.

You’ll also find all hazardous certification information on the label.

## Warranty

This product is covered by APG’s warranty to be free from defects in material and workmanship under normal use and service of the product for 24 months. For a full explanation of our Warranty, please visit [https://www.apgsensors.com/about-us/terms-conditions](https://www.apgsensors.com/about-us/terms-conditions).

Scan the QR code to the right to see the full user manual on your tablet or smartphone. Or visit www.apgsensors.com/support to find it on our website.

---

## Dimensions

**MPX-T Housing Dimensions**

- **3/4”NPT**
- **2.17”**
- **4.96”**
- **1.90”**
- **6.44” - 6.97”**
- **5.00”**
- **3.4” NPT Housing Connection Location**
- **Ø 0.27”**
- **ZERO REFERENCE**

---

**DANGER: OPEN CIRCUIT BEFORE REMOVING COVER or KEEP COVER TIGHT WHILE CIRCUITS ARE ACTIVE!**

**AVERTISSEMENT: OUVRIR LE CIRCUIT AVANT D'ENLEVER LE COUVERCLE, ou GARDER LE COUVERCLE BIEN FERME TANT QUE LES CIRCUITS SONT SOUS TENSION.**

**DANGER: WARNING -- EXPLOSION HAZARD -- SUBSTITUTE OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2; AVERTISSEMENT -- RISQUE D’EXPLOSION -- LA SUBSTITUTION D’UN COMPOSANT N’AFFECTE PAS LA SANS SUITABILITE POUR LES EMPLOYES DE CLASSE I, DIVISION 2.**

---

**WARNING -- EXPLOSION HAZARD -- DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS!**

**AVERTISSEMENT — RISQUE D’EXPLOSION — AVANT DE DECONNECTER L’EQUIPEMENT, COUPER LE COURANT OU S’ASSURER QUE L’EMPLACEMENT EST DESIGNE NON DANGEREUX.**

---

**Warning: -- The model MPX-T contains titanium in excess of 7.5% for Group II and care needs to be taken to avoid an ignition hazards due to impact or friction; AVERTISSEMENT — Le modèle MPX-T contient du titane en excès de 7,5% pour le groupe II et les soins doivent être prises pour viter une inflammation des dangers dus à des chocs ou frottements.**

---

### Installation Guidelines & Instructions

**For MPX-T**

The MPX should be installed in an area—indoors or outdoors—which meets the following conditions:

- Ambient temperature between -40°C and 85°C (-40°F to 185°F)
- Relative humidity up to 100%
- Altitude up to 2000 meters (6560 feet)
- IEC-664-1 Conductive Pollution Degree 1 or 2
- No chemicals incompatible with Titanium Grade 2
- Ample space for maintenance and inspection

Additional care must be taken to ensure:

- The probe is located away from strong magnetic fields, such as those produced by motors, transformers, solenoid valves, etc.
- The medium is free from metallic substances and other foreign matter.
- No ignition hazards exist due to impact or friction with the titanium stem.
- The probe is not exposed to excessive vibration.
- The float(s) fit through the mounting hole. If the float(s) do not fit, it/they must be mounted on the stem from inside the vessel being monitored.

Additional care must be taken to prevent:

- • Ample space for maintenance and inspection
- • No chemicals incompatible with Titanium Grade 2
- • No ignition hazards exist due to impact or friction with the titanium stem.

**Installation Instructions:**

1. **MPX-T level sensor MUST be installed according to drawing 9003468 (Hazardous Installation and Non-Incendive Wiring Drawing) in section 9 to meet listed approvals. Faulty installation will invalidate all safety approvals and ratings.**

2. **Scan the QR code to the right to see the full manual on your tablet or smartphone. Or visit www.apgsensors.com/support to find it on our website.**

---

**Sample MPX-T5B-JI-F4SC-120-3D**

- **Connection**
- **3/4” NPT**
- **2.17”**
- **4.96”**
- **1.90”**
- **6.44” - 6.97”**
- **5.00”**
- **3.4” NPT Housing Connection Location**
- **Ø 0.27”**
- **ZERO REFERENCE**

---

**MPX Magnetostrictive Level Sensors**

*Automation Products Group, Inc.*

1025 W 1700 N Logan, UT 84321

www.apgsensors.com | phone: 888-525-7300 | email: sales@apgsensors.com

Part # 122950-0032
Doc # 9004815 Rev C
**Sensor and System Wiring Diagrams**

**Modbus System Wiring**

**Modbus System Wiring with RST-6001**

**4-20 mA System Wiring**

**4-20 mA Single Float Loop Wiring** (MPX-T2 Series)

**4-20 mA Dual Float Loop Wiring** (MPX-T3 Series)

**4-20 mA Programming Wiring**

**NOTE:** For APG Modbus programming instructions, please see MPX user manual. APG Modbus software can be downloaded from www.apgsensors.com/support.

---

**General Care**

Your MPX sensor is very low maintenance and will need little care as long as it was installed correctly. However, in general, you should periodically inspect your MPX unit to ensure the stem is free of any heavy buildup that might impede the movement of the float(s). If sediment or other foreign matter becomes trapped between the stem and float(s), detection errors can occur.

If you need to remove the float(s) from the stem of your MPX, be sure to note the orientation of the float(s) prior to removal. This will help ensure proper re-installation of the float(s).

Also, ensure that the housing cover is snugly secured. If the cover becomes damaged or is misplaced, order a replacement immediately.

**IMPORTANT:** All repairs and adjustments of the MPX-T level sensor must be made by the factory. Modifying, disassembling, or altering the MPX-T is strictly prohibited.

**Repair Information**

If your MPX level sensor needs repair, contact us via email, phone, or online chat on our website. We will issue you a Return Material Authorization (RMA) number with instructions.

- Phone: 888-525-7300
- Email: sales@apgsensors.com
- Online chat at www.apgsensors.com

---

**DANGER:** WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD - CLEAN ONLY WITH A DAMP CLOTH;

**AVERTISSEMENT – DANGER DE CHARGE ELECTROSTATIQUE POTENTIEL - NETTOYER SEULEMENT AVEC UN CHIFFON HUMIDE.**

---

**Hazardous Location Wiring**

**IMPORTANT:** For EMI protection on an MPX-T4 or MPX-T5, either connect the grounding screw (see section 4) to an earth ground, or ensure that tank mounting of the MPX is grounded.

**NOTE:** All repairs and adjustments of the MPX-T level sensor must be made by the factory. Modifying, disassembling, or altering the MPX-T is strictly prohibited.