IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx SIR 19.0026X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2021-03-11) Issue 0 (2019-03-22)
Date of Issue:	2022-09-20		
Applicant:	**Automation Products Group, Inc.** 1025 W 1700 N Logan Utah, 84321 **United States of America**		
Equipment:	**Magnetostrictive Level Sensors models MPI and MPXI**		
Optional accessory:			
Type of Protection:	**Intrinsically Safe ia and Flameproof db**		
Marking:	Ex ia IIB T4 Ga for model MPI; Ex ia/db IIB T4 Ga/Gb for model MPXI Ta = -40°C to +85°C		

Approved for issue on behalf of the IECEx Certification Body: **Michelle Halliwell**

Position: **Senior Director of Operations**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom

IECEx Certificate of Conformity

Certificate No.: **IECEx SIR 19.0026X**

Date of issue: 2022-09-20 Issue No: 2

Manufacturer: **Automation Products Group, Inc.**
1025 W 1700 N Logan
Utah, 84321
United States of America

Manufacturing locations: **Automation Products Group, Inc.**
1025 W 1700 N Logan
Utah, 84321
United States of America

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-26:2014 Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga
Edition:3.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/SIR/ExTR19.0088/00 GB/SIR/ExTR20.0215/00 GB/SIR/ExTR22.0129/00

Quality Assessment Report:

NL/DEK/QAR13.0027/06

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The MPI / MPXI Series Magnetostrictive Level sensor is used for level readings of liquid level measurement applications. The device transmits an electrical pulse down a ferromagnetic wire which, when encountering a magnetic field, causes a torsion on the wire, resulting in part of the transmitted pulse being reflected back up the wire. This reflected pulse is then picked up by a coil input into the circuit. The on-board processor calculates the distance based on the time of flight of the return echo. An on-board temperature sensor, as well as temperature sensors in the stem, allow for temperature compensation. The model MPI is comprised of an aluminium enclosure that houses a PCA and internal wiring, and a stem, which houses the ferromagnetic wire and the digital temperature sensors.

The model MPXI is similar in construction to the model MPI with the difference that model MPXI incorporates built in internal IS barrier providing intrinsically safe connections to the level sensor.

The equipment is housed in the flame proof enclosure manufactured by Limatherm S.A. models XD-I or XD-I80 certified under IECEx FTZU 12.0017U and IECEx FTZU 13.0026U respectively intended to be installed in Zone 1 with the intrinsically safe probe intended to be installed in Zone 0 attached to the enclosure. The flameproof enclosure is sealed using a manufactured glass feedthrough or a separately certified Bartec flameproof line bushing Type 07-910*-****/*X** (Excludes Type 07-910*-****/*S**) under IECEx EPS 13.0045U.

Refer to the Annexe for Entity parameters and coding.

Conditions of Manufacture

The Manufacturer shall comply with the following:

1. The equipment incorporates previously certified components, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these components. The manufacturer shall inform CSA of any modifications to the components that may impinge upon the explosion safety design of the equipment.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
2. The enclosure is manufactured from Aluminium. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.
3. Model MPXI shall be installed as per drawing 9006113.
4. Unused entries of model MPXI shall be closed with blanking elements maintaining explosion proof properties and ingress protection rating of the enclosure.
5. For information on the dimensions of the flameproof joints the manufacturer shall be contacted.
6. For Model MPXI only, the Stem Assembly shall not be subject to vibrations or exposed to chemicals which might adversely affect the partition wall.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
This issue, Issue 2, recognises the following changes; refer to the certificate annex to view a comprehensive history:

1. The Applicant and Manufacturer name was updated from “Automation Products Group” to “Automation Products Group, Inc.”
2. Replace end of life inductor in the IS circuit.

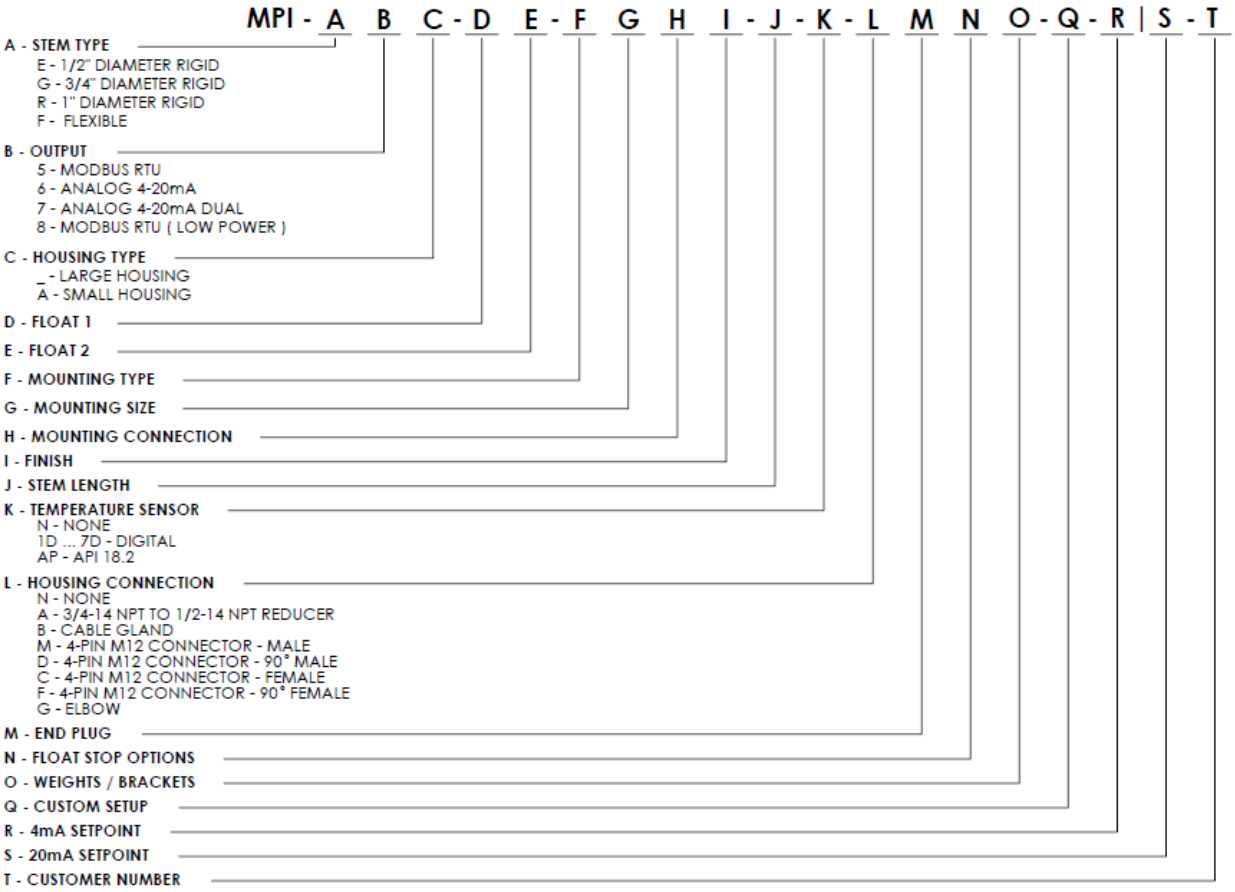
The following changes affect only Model MPXI:

1. Assess minor constructional modifications to the glass feedthrough.
2. Add alternate separately certified flameproof line bushing, BARTEC Type 07-910*-****/*X** (Excludes Type 07-910*-****/*S**).
3. Add new options to MPXI model series to distinguish glass feedthrough construction and certified line bushing construction options. The MPXI series model coding system has been updated with the additional Housing Type options.
4. Added new Condition of Use: For Model MPXI only, the Stem Assembly shall not be subject to vibrations or exposed to chemicals which might adversely affect the partition wall.
5. Added new Condition of Manufacture for Manufacturer responsibility with separately certified component.

Annex:

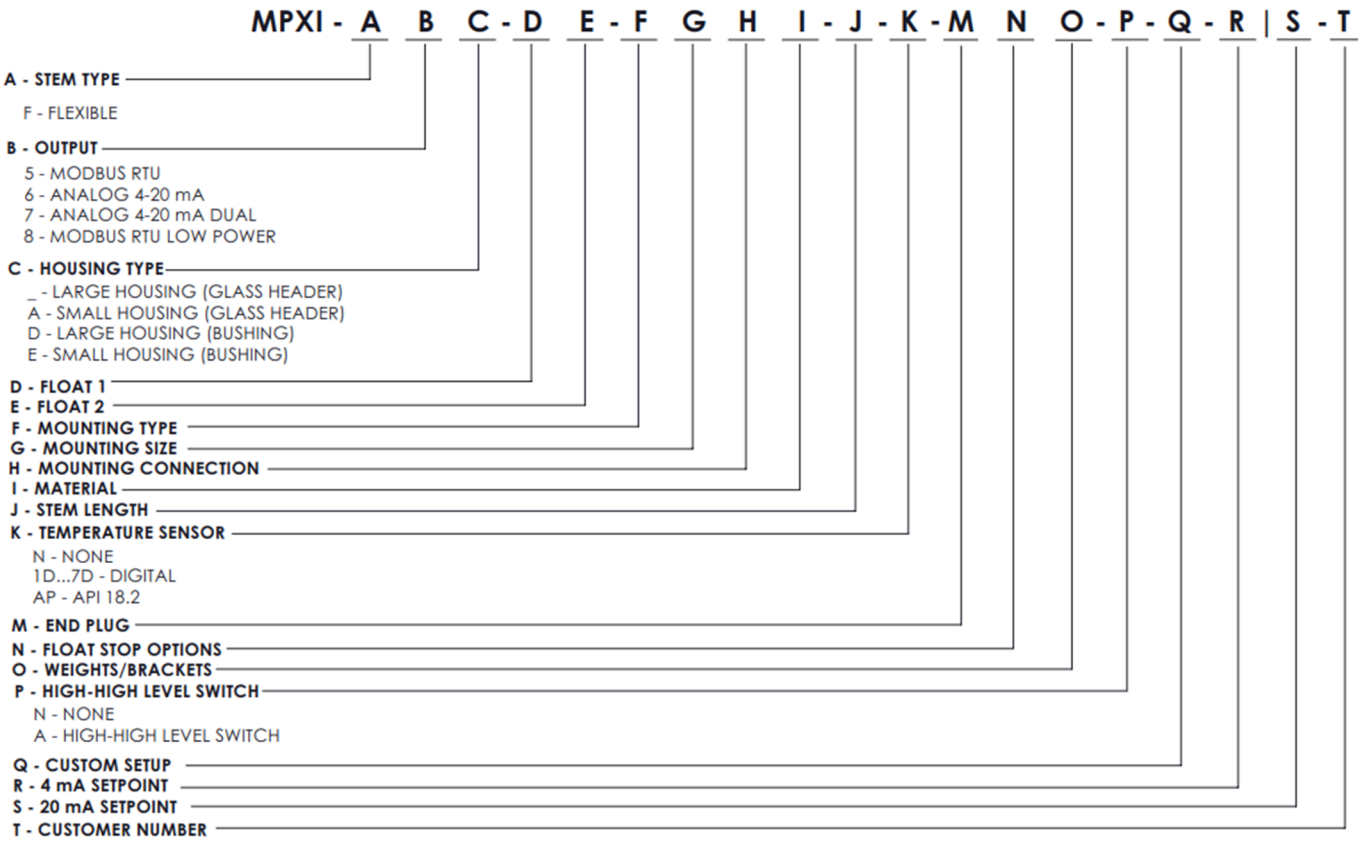
IECEx SIR 19.0026X Issue 2 Annexe.pdf

Models MPI:
Entity Parameters: Ui= 28V, Ii= 280mA, Pi=0.850W, Li=3.50µH, Ci=0.374µF
Model Configuration Coding



CSA Group Testing UK Ltd.
Unit 6 Hawarden Industrial Park,
Hawarden Deeside CH5 3US, UK.

Models MPXI:
Model Configuration Coding



Full certificate change history

Issue 1 – this Issue introduced the following changes:

i. Modifications to model MPI with RS485 communication option;
ii. Addition model MPI with 4-20 mA communication option;
iii. Addition of model MPXI with marking Ex ia/db IIB T4 Ga/Gb as a consequence IECE 60079-1: 2014 Ed 7 and IEC 60079-26:2014 Ed 3 were added to the list of standards

Issue 2 – this Issue introduced the following changes:

i. The Applicant and Manufacturer name was updated from “Automation Products Group” to “Automation Products Group, Inc.”
ii. Replace end of life inductor in the IS circuit.

The following changes affect only Model MPXI:

i. Assess minor constructional modifications to the glass feedthrough.
ii. Add alternate separately certified flameproof line bushing, BARTEC Type 07-910*-****/*X** (Excludes Type 07-910*-****/*S**).

CSA Group Testing UK Ltd.
Unit 6 Hawarden Industrial Park,
Hawarden Deeside CH5 3US, UK.

iii. Add new options to MPXI model series to distinguish glass feedthrough construction and certified line bushing construction options. The MPXI series model coding system has been updated with the additional Housing Type options.
iv. Added new Condition of Use: For Model MPXI only, the Stem Assembly shall not be subject to vibrations or exposed to chemicals which might adversely affect the partition wall.
v. Added new Condition of Manufacture for Manufacturer responsibility with separately certified components.

CSA Group Testing UK Ltd.
Unit 6 Hawarden Industrial Park,
Hawarden Deeside CH5 3US, UK.