

# **Certificate of Compliance**

Certificate:	70219727	Master Contract:	237484	
Project:	80042317	Date Issued:	2020-11-24	
Issued To:	Automation Products Group Inc 1025 West 1700 North Logan, Utah, 84321 United States			

**Attention: Alex Fullmer** 

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: Kons

Konstantín Rybalko Konstantin Rybalko

### **PRODUCTS**

 CLASS - C2258-04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations
CLASS - C2258-84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations - Certified to US Standards

Class I, Division 1, Groups C & D, T4; IP 65\* Class I, Zone 0, AEx ia, IIB, T4, Ga Ex ia IIB, T4, Ga

MPI Magnetostrictive Level Sensor, rated 8-24 VDC, Imax = 280 mA; Tamb =  $-40^{\circ}$ C to  $+85^{\circ}$ C, Intrinsically Safe when installed per drawing 9005491

Entity Parameters: Ui= 28V, Ii = 280mA, P i= 0.850W, Li =  $3.50\mu$ H, Ci =  $0.374\mu$ F

\*IP 65 is only for STEM Type E, G, R, F and T.



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The MPI series utilizes a configurator style model coding system as defined below:

MPI-ABC-DE-FGHI-J-K-LMNO-Q-R S-	Т
A - STEM TYPE E - 1/2" DIAMETER RIGID G - 3/4" DIAMETER RIGID R - 1" DIAMETER RIGID F - FLEXIBLE	
B - OUTPUT 5 - MODBUS RTU 6 - ANALOG 4-20mA 7 - ANALOG 4-20mA DUAL 8 - MODBUS RTU ( LOW POWER )	
C - HOUSING TYPE	
D - FLOAT 1	
E - FLOAT 2	
F - MOUNTING TYPE	
G - MOUNTING SIZE	
H - MOUNTING CONNECTION	
I - FINISH	
J - STEM LENGTH	
K - TEMPERATURE SENSOR	
L - HOUSING CONNECTION N - NONE A - 3/4-14 NPT TO 1/2-14 NPT REDUCER B - CABLE GLAND M - 4-PIN M12 CONNECTOR - MALE D - 4-PIN M12 CONNECTOR - 90° MALE C - 4-PIN M12 CONNECTOR - FEMALE F - 4-PIN M12 CONNECTOR - 90° FEMALE G - ELBOW	
M - END PLUG	
N - FLOAT STOP OPTIONS	
O - WEIGHTS / BRACKETS	
Q - CUSTOM SETUP	
R - 4mA SETPOINT	
S - 20mA SEIPOINI	
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#### **Conditions of Certification:**

- 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 Aluminum. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.
- 3. IP 65 is not a part of the hazardous location ratings and is tested separately.



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CLASS - C2258-03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non - Incendive Systems -For Hazardous Locations

CLASS - C2258-83 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe and Non-Incendive - Systems-For Hazardous Locations-Certified to U.S. Standards

#### Class I, Division 1, Groups C & D, T4; IP 66 Class I, Zone 0/1, AEx ia/db IIB T4 Ga/Gb Ex ia/db IIB T4 Ga/Gb

MPXI Magnetostrictive Level Sensor, rated 12-24 V dc, 40 mA, Tamb =  $-40^{\circ}$ C to  $+85^{\circ}$ C, Housed in explosion proof enclosure intended to be installed in EPL Gb with Intrinsically Safe probe intended to be installed in EPL Ga.

The MPXI series utilizes a configurator style model coding system as defined below:

	MPXI - A	B C - D	<u>E-F</u>	GH	<u>I - J - K - M</u>	Ν	O - P - Q - R   S - T
B - OUTPUT 5 - MODBUS RTU 6 - ANALOG 4-20 mA 7 - ANALOG 4-20 mA DUA 8 - MODBUS RTU LOW POV	L VER						
C - HOUSING TYPE LARGE HOUSING A - SMALL HOUSING							
D - FLOAT 1 E - FLOAT 2 F - MOUNTING TYPE G - MOUNTING SIZE H - MOUNTING CONNECTION 1 - MATERIAL J - STEM LENGTH K - TEMPERATURE SENSOR N - NONE 1D7D - DIGITAL AP - API 18.2	4						
M - END PLUG N - FLOAT STOP OPTIONS	1						
Q - CUSTOM SETUP R - 4 mA SETPOINT S - 20 mA SETPOINT T - CUSTOMER NUMBER							



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#### **Conditions of Certification:**

- 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 Aluminum. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.
- 3. Unused conduit entries of model MPXI shall be closed with blanking elements maintaining explosion proof properties and ingress protection rating of the enclosure and can be removed only with use of a tool.
- 4. Wiring used for external connections of model MPXI shall be rated at least 20K higher than the maximum ambient temperature
- 5. Conduit seal shall be installed within 18" of the enclosure of model MPXI
- 6. The model MPXI shall be supplied by Class 2 or limited energy source according to C22.2 No 61010-1 and UL 61010-1
- 7. The model MPXI shall be installed as per drawing 9006113



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## **APPLICABLE REQUIREMENTS**

CAN/CSA-CSA-C22.2 No. 61010-1-12 -	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
UL Std. No. 61010-1 3 <sup>rd</sup> Ed.	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
CAN/CSA-C22.2 No. 60079-0 7 <sup>th</sup> Ed.: 2019 -	Explosive atmospheres – Part 0: Equipment – General requirements
UL 60079-0 7 <sup>th</sup> Ed.: 2019 -	UL Standard for Safety Explosive atmospheres – Part 0: Equipment – General requirements – Sixth Edition
CAN/CSA-C22.2 No. 60079-1 7 <sup>th</sup> Ed.: 2016 -	Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures "d"
UL 60079-1 7 <sup>th</sup> Ed.: 2015 -	Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures "d"
CAN/CSA-C22.2 No. 60079-11 6 <sup>th</sup> Ed.: 2014-	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"
UL 60079-11: 6 <sup>th</sup> Ed.: 2013 -	Explosive Atmospheres – Part 11: Equipment protection by intrinsic safety "i"
CAN/CSA-C22.2 No. 60079-26 3rd Ed.: 2016-	Explosive atmospheres — Part 26: Equipment with Equipment Protection Level (EPL) Ga
UL 60079-26: 3 <sup>rd</sup> Ed.: 2017 -	Explosive atmospheres — Part 26: Equipment with Equipment Protection Level (EPL) Ga
CSA-C22.2 No. 30: 2020 -	Explosion-proof equipment
UL 1203: 2020 -	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations



# Supplement to Certificate of Compliance

Certificate: 70219727

Master Contract: 237484

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

## **Product Certification History**

Project	Date	Description
80042317	2020-11-24	Update to CSA report 70219727 for modifications to model MPI with RS485 communication option and addition of 4-20 mA option for existing marking Class I, Division 1, Groups C, D, T4; IP 65 Class I, Zone 0, AEx ia, IIB, T4, Ga Ex ia IIB, T4, Ga Addition of model MPXI with marking Class I, Division 1, Groups C, D, T4; IP 66 Class I, Zone 0/1, AEx ia/db IIB T4 Ga/Gb Ex ia/db IIB T4 Ga/Gb
70219727	2019-03-26	Original certification of Model MPI