



# Certificate of Compliance

**Certificate:** 2167400 (237484)

**Master Contract:** 237484

**Project:** 70022836

**Date Issued:** 2016-01-22

**Issued to:** Automation Products Group Inc  
1025 West 1700 North  
Logan, Utah 84321  
USA

**Attention:** Karl Reid

*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:** John Yam  
John Yam

## **PRODUCTS**

CLASS - C225205 - PROCESS CONTROL EQUIPMENT

CLASS - C225285 - PROCESS CONTROL EQUIPMENT-Certified to US Standards

CLASS - C225802 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-

CLASS - C225882 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards

CLASS - C225803 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

CLASS - C225883 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe and Non-Incendive-Systems-For Hazardous Locations-Certified to U.S. Standards

CLASS - C225804 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe, Entity - For Hazardous Locations-

CLASS - C225884 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity-- For Hazardous Locations - Certified to US Standards

**CLASS 2252 05** - PROCESS CONTROL EQUIPMENT

**CLASS 2252 85** - PROCESS CONTROL EQUIPMENT (Certified to U.S. Standards)

Float Level Sensors, permanently connected, indoor and outdoor use, max. operating ambient 85°C:

- Models FLXx and FLRx, rated 220 V, 0.5 A;
- Models RPMx, RPXx and RPEx, rated 5 - 15 Vdc, 100 mA, or 12 to 24 Vdc, 4-20mA;
- Model RPAX, rated 12 to 24 Vdc, 4-20mA;



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- Model CTR-0100 (P/Ns 110101 and 110101-0001), Loop Powered 4-20mA Module, rated 4-20mA output is 12 to 24 Vdc.

Note: The above models are Pollution Degree 2, Measurement Category II.

Notes for Models FLXx, FLRx, RPMx, RPAX, RPXx, RPEX:

1. The "x" in the Model designations may be any alpha-numeric character, to denote minor mechanical options, not affecting safety. Refer to Illustration 28 for Model designator and suffix details.
2. The equipment is intended to be installed as required by the applicable electrical code (CEC, NEC) and as specified by the manufacturer's Installation Instructions.
3. The circuit board P/N STF-CTR-01\*\* from the Model RPMx Probe may be supplied as a component part where the suitability of the final installation will be inspected by the authority with jurisdiction in the area where installed.
4. The installation will be inspected by the authority with jurisdiction in the area where installed.

**CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - FOR HAZARDOUS LOCATIONS**

**CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - FOR HAZARDOUS LOCATIONS, U.S. Requirements**

**Class I, Division 1, Groups C, and D**

- Float Level Sensors, model FLXx, rated 220 V, 0.5 A, max. or rated 24Vdc, 0.5A, max., and model RPMx and RPXx, rated 5 - 24 Vdc, 100mA or 12 to 24 Vdc, 4-20mA; operating ambient 40°C.

**Class I, Zone 1, Ex d, IIB T3**

**Class I, Zone 1, AEx d, IIB T3**

- Float Level Sensors, model FLXx, rated 24 Vdc, 0.5 A, max., and model RPMx and RPXx, rated 5 - 24 Vdc, 100mA or 12 to 24 Vdc, 4-20mA; operating ambient 40°C.

Notes for Models FLXx, RPMx, RPXx:

1. The "x" in the Model designations may be any alpha-numeric character, to denote minor mechanical options, not affecting safety.
2. The equipment is intended to be installed as required by the applicable electrical code (CEC, NEC) and as specified by the manufacturers Installation Instructions.
3. The installation will be inspected by the authority with jurisdiction in the area where installed.

**Class I, Division 2, Groups C, and D**

- Float Level Sensor model FLXx, rated 220 V, 0.5 A, model RPMx and RPXx, rated 5 - 15 Vdc, 100mA, or rated 12 to 24 Vdc, 4-20mA, and model RPAX, rated 12 to 24 Vdc, 4-20mA; max; operating ambient 85°C.

Notes for Models FLXx, RPMx, RPAX, RPXx:



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1. The "x" in the Model designations may be any alpha-numeric character, to denote minor mechanical options, not affecting safety.
2. The equipment is intended to be installed as required by the applicable electrical code (CEC, NEC) and as specified by the manufacturers Installation Instructions.
3. The installation will be inspected by the authority with jurisdiction in the area where installed.

**CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - INTRINSICALLY SAFE AND NON INCENDIVE SYSTEMS - FOR HAZARDOUS LOCATIONS**

**CLASS 2258 83 - PROCESS CONTROL EQUIPMENT - INTRINSICALLY SAFE AND NON INCENDIVE SYSTEMS - FOR HAZARDOUS LOCATIONS, CERTIFIED TO U.S. STANDARDS**

**Class I, Division 2, Groups C, and D**

- Float Level Sensor model RPMx and RPXx, rated 5 - 15 Vdc, 100mA, or rated 12 to 24 Vdc, 4-20mA, and model RPAX, rated 12 to 24 Vdc, 4-20mA; max; operating ambient 85°C. Field wiring is non-incendive when installed per drawings 9001415, 9001932 and 9002023 respectively.

Notes for Models RPMx, RPAX, RPXx:

1. The "x" in the Model designations may be any alpha-numeric character, to denote minor mechanical options, not affecting safety.
2. The equipment is intended to be installed as required by the applicable electrical code (CEC, NEC) and as specified by the manufacturers Installation Instructions.
3. The installation will be inspected by the authority with jurisdiction in the area where installed.

**CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - INTRINSICALLY SAFE, ENTITY - FOR HAZARDOUS LOCATIONS**

**CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - INTRINSICALLY SAFE, ENTITY - FOR HAZARDOUS LOCATIONS, U.S. Requirements**

**Class I, Division 1, Groups C, and D**

- Float Level Sensors, model RPMx, RPAX, RPXx and model CTRx loop powered 24Vdc, 4-20mA converter module, max. operating ambient 85°C; Temperature Code rating T3C; Intrinsically Safe when connected as per drawing 9001414, 9001423 and 9001930 with the following Entity Parameters:  $V_{max} = 30V$ ,  $I_{max} = 130mA$ ,  $C_i = 3nF$ ,  $L_i = 0uH$ .

Notes for Models RPMx, RPAX and RPXx:

1. The "x" in the Model designations may be any alpha-numeric character, to denote minor mechanical options, not affecting safety.
2. The equipment is intended to be installed as required by the applicable electrical code (CEC, NEC) and as specified by the manufacturers Installation Instructions.
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### **APPLICABLE REQUIREMENTS**

- |                                      |   |
|--------------------------------------|---|
| CSA Standards C22.2 No. 0-10         | - General Requirements - Canadian Electrical Code, Part II  |
| CSA Standards C22.2 No. 30-M1987     | - Explosion-Proof Enclosures for Use in Class I Hazardous Locations   |
| CAN/CSA C22.2 No. 61010-1-12         | - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements         |
| CSA Standards C22.2 No. 157-M1992    | - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations   |
| CSA Standards C22.2 No. 213-M1987    | - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations   |
| CSA Standards C22.2 No. 60079-0:15   | - Explosive atmospheres – Part 0: Equipment – General requirements  |
| CSA Standards C22.2 No. 60079-1:11   | - Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”   |
| UL 61010-1 (3 <sup>rd</sup> Edition) | - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements        |
| UL 913, Eighth Edition               | - Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations |
| UL1203, Fifth Edition                | - Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations                        |
| UL/ISA 60079-0, Sixth Edition        | - Explosive atmospheres – Part 0: Equipment – General requirements  |
| UL/ISA 60079-1, Seventh Edition      | - Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures “d”   |
| FM 3611, December 2004               | - Nonincendive Electrical Equipment for Use in Class I and II, Divisions 1 and 2 Hazardous (Classified) Locations                 |



## Supplement to Certificate of Compliance

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*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
70022836	2016-01-22	Update Report 2167400 to include alternate welding method for model RPMx with update 4 drawings, and revise the applicable standards to the latest edition.
2629489	2013-11-19	Update to report 2167400 to add approval for Class I Zone 1 Ex d IIB; AEx d IIB for the Voltage and 4-20ma versions of the RPM and RPX probes as well as the FLX probe limited to 24VDC maximum operating voltage.
2167400	2009-11-16	Create new report from 156365-1140498 and evaluate the non-hazardous locations listed models to CSA/UL 61010-1 as required by Notice 7. Additional component updates and corrections made.

#### History

The following history has been transferred from MC156365 Report 1140498:

1140498 - Nov 2, 2000 - Model FR25x, Float Level Sensor, Model LR29x, Float Level Sensor.

1186512 - Apr 20, 2001 - Update to 1140498 to Change Model Designations From ToLR29x RPMxFR25x FLXx.

1225158 - July 17, 2001 - Update to include alternative UL/CSA reed switches.

1237109 - Sept 4, 2001 - Update to include alternative construction of Model RPMx.

1280884 - May 16, 2002 - Update to include 24 Vdc, loop powered 4-20mA converter board and replace jumper board with jumper wire.

1324024 - August 28, 2002 - Update RPM Level probe to I.S. Requirements.

1384694 - January 20, 2003 - Update to include RPX, RPE, FLR sensors and change ambient to 85°C.

1458115 - July 30, 2003 - Update FLX Float Level Sensor to Class I Division 1 Groups C, & D ambient 40°C. Update to include alternative UL/CSA reed switch.

1517864 - 2004/02/17 - Update RPM for Class I, Div 1, Also add CRTx - Intrinsically-safe for Class I, Div 1.

1663709 - 2005/05/25 - Update report to include: addition of RPA, CTR-0100 surface mount components, RPX as explosionproof, non-incendive field wiring for RPM and RPX and revised drawings.