



# Certificate of Compliance

**Certificate:** 2167400

**Master Contract:** 237484

**Project:** 70193876

**Date Issued:** 2019-04-09

**Issued To:** Automation Products Group Inc  
1025 West 1700 North  
Logan, Utah, 84321  
United States

**Attention:** Joe James

*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:** *Albert Jansen*  
Albert Jansen

## PRODUCTS

**CLASS 2252 06 - PROCESS CONTROL EQUIPMENT**

**CLASS 2252 86 - 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;
- 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.



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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.

FS-400, FS-410 and FS-500 float switches. Single Seal (MWP 1000psi). Ambient temperature -40°C to 260°C. Type 4X (NPT Connection Only). Ratings as follows:

- 0.416A, 240Vac (50/60 Hz)
- 0.833A, 120Vac (50/60 Hz)/Vdc
- 1.00A, ≤100Vac (50/60 Hz)/Vdc

Conditions of Acceptability for FS-400, FS-410, and FS-500

- The equipment must be connected to a purely resistive load
- The equipment must be grounded through final installation

**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 T3**

- 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.

**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.



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### **Class I, Division 2, Groups C, and D T3**

- 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:

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 1 Groups A, B, C, and D, Class II Division 1 Groups E, F, Class III; T3 Class I Division 2 Groups A, B, C, and D, Class II Division 2 Groups F, G; T200°C**

FS-400, FS-410, and FS-500 (NPT Connection) float switches. Single Seal (MWP 1000psi). Ambient temperature -40°C to 187°C. Type 4X. Seal Not Required. Ratings as follows:

- 0.416A, 240Vac (50/60 Hz)
- 0.833A, 120Vac (50/60 Hz)/Vdc
- 1.00A, ≤100Vac (50/60 Hz)/Vdc

#### **Conditions of Acceptability**

- The equipment must be connected to a purely resistive load
- The equipment must be grounded through final installation

**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 T3**

- 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.



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**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.
3. The installation will be inspected by the authority with jurisdiction in the area where installed.



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**APPLICABLE REQUIREMENTS**

<b>Standard</b>	<b>Title</b>
CSA C22.2 No. 0-10	General Requirements - Canadian Electrical Code, Part II
CSA C22.2 No. 25-17	Enclosures for use in Class II, Division 1, Groups E, F, and G hazardous locations
CSA 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 C22.2 No. 157-M1992	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
CSA C22.2 No. 213-17	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CSA C22.2 No. 60079-0:15	Explosive atmospheres – Part 0: Equipment – General requirements
CSA C22.2 No. 60079-1:11	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”
ANSI/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 2018	Nonincendive Electrical Equipment for Use in Class I and II, Divisions 1 and 2 Hazardous (Classified) Locations



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## MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.


Markings appear as outlined in the Certification Report on an adhesive nameplate, on a screw or rivet secured metal nameplate or in some other permanent manner. Labels, if shown in the report, may vary slightly in layout, provided that the required information continues to be shown.

The following markings appear on each product where applicable:

Marking on the unit that indicates the manufacturing location if the equipment is manufactured at more than one factory location.

Protective earthing TERMINAL is identified by the IEC 417 No 5019 symbol () adjacent to the TERMINAL; Neutral is identified by the letter "N" (for PERMANENTLY CONNECTED EQUIPMENT).

The following markings appear on each product for Ordinary Locations:

- 1) Submitter's name, trademark, or the CSA Master Contract No. "237484" (adjacent to the CSA Monogram);
- 2) Catalogue / Model designation;
- 3) Complete electrical rating;
- 4) Date code / Serial number traceable to month and year of manufacture;
- 5) Maximum ambient 85°C;
- 6) The CSA Monogram with C/US subscript. The product may bear the following CSA Marking: 

The following information appears engraved on a metal nameplate which is permanently secured to the subject equipment by drive-pins engaging bottomed holes on the cover (or equivalent permanent securement):

The following markings must appear on the Class I, Div 1 or Class I, Zone 1 versions of the float level sensors.

- 1) Submitter's name, trademark, or the CSA Master Contract No. "237484" (adjacent to the CSA Monogram);
- 2) The CSA Monogram with C/US subscript;
- 3) Catalogue / Model designation;
- 4) Date code or Serial Number traceable to month and year of manufacture;
- 5) Complete electrical ratings;
- 6) Hazardous Location designations: Class I, Division 1, Groups C & D or Class I, Zone 1, Ex d IIB; AEx d IIB
- 7) The following warning statements:



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“OPEN CIRCUIT BEFORE REMOVING COVER and OUVRIR LE CIRCUIT AVANT D'ENLEVER LE COUVERCLE, or KEEP COVER TIGHT WHILE CIRCUITS ARE ALIVE” and “GARDER LE COUVERCLE BIEN FERMÉ TANT QUE LES CIRCUITS SONT SOUS TENSION” or equivalent;

“SEAL SHALL BE INSTALLED WITHIN 50 mm OF THE ENCLOSURE” and “UNSCHELMUNG DOIT ETRE INSTALLE A MOINS DE 50 mm DU BOITIER”.

The following markings must appear on the Class I, Div 2 versions of the float level sensors.

- 1) Submitter's name, trademark, or the CSA Master Contract No. “237484” (adjacent to the CSA Monogram);
- 2) The CSA Monogram with C/US subscript;
- 3) Catalogue / Model designation.
- 4) Date code or Serial Number traceable to month and year of manufacture.
- 5) Complete electrical ratings
- 6) Hazardous Location designations: Class I, Division 2, Groups C & D
- 7) The following warning statements:  
"WARNING, EXPLOSION HAZARD-DO NOT DISCONNECT WHILE CIRCUIT IS LIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS"  
and  
"AVERTISSEMENT-RISQUE D'EXPLOSION. NE PAS DEBRANCHER TANT QUE LE CIRCUIT EST SOUS TENSION, A MOINS QU'IL NE S'AGISSE D'UN EMPLACEMENT NON DANGEREUX."

The following markings must appear on the Class I, Div 1 Intrinsically Safe versions of the float level sensors.

- 1) Submitter's name, trademark, or the CSA Master Contract No. “237484” (adjacent to the CSA Monogram);
- 2) The CSA Monogram with C/US subscript;
- 3) Catalogue / Model designation.
- 4) Complete electrical rating (Entity parameters).
- 5) Date code / Serial number traceable to month and year of manufacture.
- 6) Hazardous Location designations. (Class I, Division 1, Groups C and D)
- 7) The symbol "Exia".
- 8) The words "INTRINSICALLY SAFE / SECURITE INTRINSEQUE".
- 9) Temperature code T3C
- 10) Maximum ambient 85°C
- 11) Reference to the installation drawings
- 12) The following bilingual cautions: (May be located on the installation drawing)  
“WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY” and,  
“AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SECURITE INTRINSEQUE”.

The following markings must appear on the FS-400, FS-410, and FS-500.

- 1) Submitter's name, trademark, or the CSA Master Contract No. “237484” (adjacent to the CSA Monogram);
- 2) The CSA Monogram with C/US subscript;
- 3) Catalogue / Model designation.
- 4) Complete electrical rating.
- 5) Date code / Serial number traceable to month and year of manufacture.



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- 6) Hazardous Location designations. (Class I, Div. 1/2, Groups A, B, C and D T3; Class II Div. 1 Groups E, F; Class II Div. 2 Groups F, G; Class III)
- 8) The words "SEAL NOT REQUIRED".
- 9) Temperature code T3
- 10) Ambient temperature range
- 11) Reference to the installation drawings
- 12) The MWP range





## 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

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Project	Date	Description
70193876	2019-04-09	Addition of float switches FS-400, FS-410, and FS-500 with the following markings: Cl. I Div. 1/2 Grps ABCD; Cl. II Div. 1 Grps EF; Cl. II Div. 2 Grps FG; Cl. III; -40C to 187C (Hazloc); -40C to 260C (Ordloc); Type 4X (Hazloc). Update CSA C22.2 No. 213-M1987 to CSA C22.2 No. 213-17 and FM 3611 (December 2004) to FM 3611 (January 2018). Correction to label drawing to include T3 temperature code.
000070022836	2016-01-22	(CSA: 1of3) Update Report 2167400 to include evaluation to the latest standards for CAN/USA for model RPMx, update 2 drawings, and accept alternate welding method; cost covers evaluation and hydrostatic testing.
0002629489	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.
0002167400	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.