



# Certificate of Compliance

**Certificate:** 70081731

**Master Contract:** 178551

**Project:** 70195941

**Date Issued:** 2018-11-21

**Issued to:** Flowline Incorporated  
10500 Humbolt St  
Los Alamitos, California 90720  
USA

**Attention:** Michael Rafferty

*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:** Jordy Sehn  
Jordy Sehn

## **PRODUCTS**

CLASS 2252 06 - PROCESS CONTROL EQUIPMENT

CLASS 2252 86 - PROCESS CONTROL EQUIPMENT - Certified to US Standards

US01/US03/US06

Rated: 14 - 28Vdc max, 22 mA max.

Enclosure: Type 4X/IP66(US06); Type 6P, IP68(US01/US03)

Operating temperature range: -40°C to 80°C

## **Notes:**

1. The above model is permanently connected, Equipment Class II, Pollution Degree 2
2. Mode of operation: Continuous
3. Environmental Conditions: -40°C to 80°C; 0 to 2000m; 0 to 98% RH
4. Equipment is intended to be supplied from an extra low voltage, Class 2 power source as defined in the Canadian Electrical Code, Part 1 and the National Electrical Code

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity – For Hazardous Locations

CLASS 2258 84 - PROCESS CONTROL EQUIPMENT – Intrinsically Safe, Entity – For Hazardous Locations -  
Certified to US Standards



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For Canada:

- **Class I, Division 1, Groups A, B, C and D T4**
- **Class II, Division 1, Groups E, F, G T4**
- **Class III, T135°C**

Zones :

- **Ex ia IIC T4 Ga**
- **Ex ia IIIC T135°C Da**

For U.S. :

Divisions:

- **Class I, Div 1, Groups A,B, C and D T4**
- **Class II, Div 1, Groups E, F, G T4**
- **Class III, T135°C**

Zones:

- **Class I, Zone 0, IIC AEx ia T4 Ga**
- **Class II, Zone 20, IIIC AEx ia, T135°C, Da**

Model Series:
US01/US03
US06

Entity Parameters:

Parameters	gas application	dust application
	Terminals	1 - 4
Voltage $U_i$	28 Vdc	28 Vdc
Current $I_i$	100mA	100mA
Power $P_i$	840 mW	840 mW
Effective internal capacitance $C_i$	negligible	negligible
Effective internal inductance $L_i$	2.46mH	2.46mH
Li/Ri	5.26uH/ $\Omega$	5.26uH/ $\Omega$

Refer to model codes – nomenclature – for explanation of asterisks.

**Conditions of Acceptability**

1. Equipment is intended to be supplied from an extra low voltage, Class 2 power source as defined in the Canadian Electrical Code, Part 1 and the National Electrical Code.
2. Installed as per. control drawing US06(600820) and US01/US03(610125) for Hazardous and Non-Hazardous areas
3. Equipment is not to be used with flammable liquids in Non-Hazardous areas



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4. 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.

**APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 60079-0:15	-	Explosive atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:14	-	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i”
CAN/CSA-C22.2 No. 61010-1-12, 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. 60529:16	-	Degrees of protection provided by enclosures (IP Code)
CAN/CSA-C22.2 No. 94.2-15	-	Special Purpose Enclosures
ANSI/ISA 61010-1, Ed. 3	-	Safety requirements for electrical equipment for measurement, control, and laboratory use
UL Std. No. 60079-0, 6 <sup>th</sup> Edition	-	Explosive atmospheres – Part 0: Equipment - General requirements
UL Std. No. 60079-11, 6 <sup>th</sup> Edition	-	Explosive atmospheres – Part 11: Equipment Protection by Intrinsic safety “i”
UL Std. No 913, 8 <sup>th</sup> Edition	-	Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.
ANSI/IEC 60529:2004	-	Degrees of protection provided by enclosures (IP Code)
UL 50E, 2nd Edition	-	Enclosures for Electrical Equipment



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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.

### **Nameplate label material approval information:**

Label is DPM PWS(White + Clear) 4.0 mil UL File No. MH10170(N) Recognized, CSA Accepted File No. 99214 marked with UV ink system and attached onto the outside of housing as per. Flowline drawing No. 210125 for US01/US03 and drawing No. 200019 for US06 marking drawing.

- CSA Monogram.
- Submitter's name, trademark, or the CSA file number (adjacent the CSA Mark).
- Catalog or Model designation or equivalent, traceable to the month and year (at least) of manufacture
- Electrical ratings
- Temperature code or equivalent, Ambient temperature range
- Hazardous Locations Area Markings
- serial number, date code or equivalent
- The equipment supply is identified by the symbol IEC 60417 No 5031 

The following Caution markings or equivalents are required in English and French.

-WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 1, or equivalent as stated in user manual



-AVERTISSEMENT – RISQUE D'EXPLOSION-LA SUBSTITUTION DE COMPOSANTS PEUT RENDRE CE MATERIEL INACCEPTABLE POUR LES EMPLACEMENTS DE CLASSE I, DIVISION 1



## *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**

<b>Project</b>	<b>Date</b>	<b>Description</b>
70195941	2018-11-21	Update to project 70081731 to include the replacement of the transformer T1 in the DSP PCB Assembly (200362C) common to all certified models. In addition, the construction of the four conductor, stranded cable (204047) on the US01/US03 models was slightly modified. Updated product evaluation history and descriptive documents to include the latest revisions. Updated markings in the Marking section of the report.
70081731	2018-03-28	Certification of US06 and US03 series level sensors for Class I Div 1 Gr ABCD, Class II Gr EFG, Class I Zone 0 IIC and Zone 20 Gr IIC.