



# Certificate of Compliance

**Certificate:** 80038272

**Master Contract:** 208772

**Project:** 80038272

**Date Issued:** 2020-10-16

**Issued to:** Fluidwell BV  
Voltaweg 23  
Veghel, Noord-Brabant, NB  
5466 AZ  
NETHERLANDS  
**Attention:** Mr. Roger Amiot

*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:** *Oong Lee*  
Oong Lee



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## **PRODUCTS**

**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 A, B, C, D T5**

**Gas & liquid flow indicator/totalizer**, F1 Series, Model F1xx-z-A-C-H-I-O-P1-P2-X-Z, rated for 6-30 Vdc, max. 1 W, Ambient Temperature -40 °C to +70 °C, Type 4X enclosure, non-incendive when installed as per drawing D\_F1xx\_1.0, output parameters – Voc: 5.1 V, Isc: 1.9 mA, Po: 2.4 mW, Ca: 1000 µF, La: 3 H.

Note: Firmware range: 00-99 is not safety related and the construction of all models is identical. Where firmware reduces functionality, the matching terminals and components will not be placed.



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**Nomenclature**

<b>F1xx - z - A_ - C_ - H__ - I_ - O_ - P1_ - P2_ - X_ - Z_</b>		<b>Presence</b>
xx - Firmware range: 00-99		
<b>z - Input signal</b>	P (pulse input)	always
<b>A - Analog Output Signal</b>	AH (isolated loop powered) AX (no analog output)	selection
<b>C - Communications</b>	CH (non-isolated RS485) CX (no communication)	selection
<b>H - Enclosures</b>	HA_ (alu) (HA and HL to HZ codes equate to HA_ code) HB_ (alu deep rear cover) HS_ (stainless) HG_ (non-metallic) HGL_ (2 conduit hub entries) HGT_ (1 conduit hub entry)	Selection one type of Enclosure with code HA_, HB_, HS_ or HG_ _select drillings/threads (HGL and HGT are specific valox conduit versions)
<b>I - Additional inputs</b>	IB (external clear input) IG (isolated inputs) IX (no additional inputs)	optional optional when no -I option selected
<b>O - Digital Output</b>	OT (passive transistor) OG (1x solid state output, up to 2 passive transistors) OX (no digital outputs)	selection
<b>P1 - Additional Battery Supply</b>	PB (battery supply)	optional
<b>P2 - Power Requirements</b>	PX (basic supply)	always
<b>X - Hazardous Area</b>	XN (Division2)	always
<b>Z - Options</b>	ZB (backlight) ZL (datalogging) ZU (Modbus table) ZX (no options)	optional optional optional when no -Z option selected

***Optional:** option can be added individually. – **Selection:** only one option can be selected in this group. – **Always:** option mandatory in XN configuration*



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**Conditions of Acceptability:**

1. Conduit/gland openings shall be suitably covered by certified conduit hubs/cable glands.
2. The equipment shall be supplied by a LEC (limited Energy circuit) or Class 2 power source.
3. Battery pack shall be replaced by a trained personnel only.

**APPLICABLE REQUIREMENTS**

CSA C22.2 No. 213-17	Non-incendive electrical equipment for use in class I and II, Division 2 and Class III, Division 1 and 2 hazardous locations – Third Edition
ANSI/UL 121201-2019	Non-incendive electrical equipment for use in class I and II, Division 2 and Class III, Division 1 and 2 hazardous locations – Ninth Edition
CSA C22.2 No. 94.2-15	Enclosures for Electrical Equipment, Environmental Considerations
UL 50E-2015	Enclosures for Electrical Equipment, Environmental Considerations
CAN/CSA C22.2 No. 61010-1-12, UPD1:2015, UPD2:2016, AMD1:2018	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements – Third Edition
UL 61010-1-12, AMD1:2018	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements – Third Edition

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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.

The following markings appear on the product:

- The CSA Mark with adjacent C\_US qualifiers
- Manufacturer's name or CSA Master Contract Number adjacent to CSA mark.
- The hazardous location designation: **Class I, Division 2, Groups A, B, C, D**
- Temperature code: T5
- Electrical ratings: As specified in the PRODUCTS section, above.
- Non-incendive parameters (Voc: 5.1 V, Isc: 1.9 mA, Po: 2.4 mW, Ca: 1000 µF, La: 3 H)
- Maximum ambient temperature range
- Enclosure Type 4X
- Model Number: As specified in the PRODUCTS section, above.
- Serial Number and Year of manufacture.
- Marking on the unit that indicates the manufacturing location if the equipment is manufactured at more than one factory location;
- Enclosure ratings: As specified in the PRODUCTS section, above.
- Symbol: 
- WARNING – EXPLOSION HAZARD – BATTERIES MUST ONLY BE CHANGED IN AN AREA FREE OF IGNITIBLE CONCENTRATIONS
- ”, and “AVERTISSEMENT – RISQUE D’EXPLOSION – LES BATTERIES NE DOIVENT ÊTRE REMPLACÉES QUE DANS UN EMPLACEMENT EXEMPT DE CONCENTRATIONS INFLAMMABLES”
- “Install as per drawing D\_F1xx\_1.0”



## *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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<b>Project</b>	<b>Date</b>	<b>Description</b>
80038272	2020-10-16	Original certification of Gas & liquid flow indicator/totalizer, F1 Series, Model F1xx-z-A-C-H-I-O-P1-P2-X-Z.