



Certificate of Compliance

Certificate: 70183767

Master Contract: 152450 (044092_0_000)

Project: 70183767

Date Issued: February 12, 2019

Issued to: Micro Motion Incorporated
7070 Winchester Cir
Boulder, Colorado 80301
USA
Attention: Ray C. Stengl

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: Bill Bizuk, P.Eng.
Bill Bizuk, P.Eng.

PRODUCTS

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations -
Certified to US Standards

For Canada:

- Class I, Div 1, Groups C and D T6
- Class I, Div 2, Groups A, B, C and D T6
- Class II, Div 1, Groups E, F, G T6
- Ex db [ia Ga] IIB/IIC T6 Gb
- Ex db eb [ia Ga] IIB/IIC T6 Gb
- Ex ec [ia Ga] IIC T6 Gc
- Ex tb [ia Da] IIIC T72°C Db

For U.S. :

- Class I, Div 1, Groups C and D T6
- Class I, Div 2, Groups A, B, C and D T6
- Class II, Div 1, Groups E, F, G T6



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- **AEx db [ia Ga] IIB/IIC T6 Gb**
- **AEx db eb [ia Ga] IIB/IIC T6 Gb**
- **AEx ec [ia Ga] IIC T6 Gc**
- **AEx tb [ia Da] IIC T72°C Db**

Field Mount Loop Power Transmitter, Series 4200
CHA/CHB Rated: 18Vdc - 30Vdc max., 22mA max.
Enclosure: Type 4X, IP66/IP67
Operating temperature range: -40°C to +65°C

Notes:

1. The above model is permanently connected, Equipment Class III, Pollution Degree 4, Overvoltage Category I.
2. Mode of operation: Continuous
3. Environmental Conditions: -40°C to 65°C, 2000 m max, 5% to 95% RH, non-condensing

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

For Canada:

- **Class I, Div 1, Groups A, B, C and D T4A Ex ia**
- **Class I, Div 2, Groups A, B, C and D T6**
- **Class II, Div 1, Groups E, F, G T77°C**
- **Ex ia IIB/IIC T4 Ga/Gb**
- **Ex ia IIB/IIC T77°C Da/Db**

For U.S. :

- **Class I, Div 1, Groups A, B, C and D T4A Ex ia**
- **Class I, Div 2, Groups A, B, C and D T6**
- **Class II, Div 1, Groups E, F, G T77°C**
- **AEx ia IIB/IIC T4 Ga/Gb**
- **AEx ia IIB/IIC T77°C Da/Db**

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Model Code	Marking
4200*****AA*****	Class I, Div 1, Groups C and D T6 Class I, Div 2, Groups A, B, C and D T6 Class II, Div 1, Groups E, F, G T6 Or AEx/Ex db [ia Ga] IIB/IIC T6 Gb AEx/Ex db eb [ia Ga] IIB/IIC T6 Gb AEx/Ex ec [ia Ga] IIC T6 Gc AEx/Ex tb [ia Da] IIIC T72°C Db IP66/IP67
4200*****AB*****	Class I, Div 1, Groups A, B, C and D T4A Class I, Div 2, Groups A, B, C and D T6 Class II, Div 1, Groups E, F, G T6 Or AEx/Ex ia IIB/IIC T4 Ga/Gb AEx/Ex ia IIIB/IIIC T77°C Da/Db AEx/Ex ec [ia Ga] IIC T6 Gc AEx/Ex tb [ia Da] IIIC T77°C Db IP66/IP67
4200*****2A*****	Class I, Div 2, Groups A, B, C and D T6 Class II, Div 2, Groups F, G T72°C Or AEx/Ex ec [ia Ga] IIC T6 Gc AEx/Ex tc [ia Da] IIIC T72°C Dc IP66/IP67

***Stars indicated above do not effect safety.

Input Entity Parameters:

Parameters	Series 4200	
	gas application	dust application
Terminals	4-20mA Hart Loop Connections(CH A, CH B)	4-20mA Hart Loop Connections(CH A, CH B)
Voltage Vmax/U _i	DC 30 V	DC 30 V
Current Imax/I _i	300mA	300mA
Power P _i	1.0W	1.0W



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Effective internal capacitance C_i	13200pF	13200pF
Effective internal inductance L_i	2.86uH	2.86uH

Output Entity Parameters, Group IIC:

Parameters	Series 4200	
	gas application	dust application
Terminals	Drive +, Drive -	Drive +, Drive -
U_o	6.51V	6.51V
I_o	1.52A Instantaneous 0.136A Steady State	1.52A Instantaneous 0.136A Steady State
P_o	0.81W	0.81W
C_o	22μF	22μF
L_o	15.4μH	15.4μH
L_o/R_o	14.4μH/Ω	14.4μH/Ω

Output Entity Parameters, Group IIB:

Parameters	Series 4200	
	gas application	dust application
Terminals	Drive +, Drive -	Drive +, Drive -
U_o	6.51V	6.51V
I_o	1.52A Instantaneous 0.136A Steady State	1.52A Instantaneous 0.136A Steady State
P_o	0.81W	0.81W
C_o	500μF	500μF
L_o	61.6μH	61.6μH
L_o/R_o	57.5μH/Ω	57.5μH/Ω

Output Entity Parameters, Group IIC:

Parameters	Series 4200	
	gas application	dust application
Terminals	(RPO-), (RPO+), (LPO-), (LPO+)	(RPO-), (RPO+), (LPO-), (LPO+)
U_o	6.51V	6.51V
I_o	2.63mA	2.63mA
P_o	4.3mW	4.3mW
C_o	22μF	22μF
L_o	5.1H	5.1H
L_o/R_o	8.3mH/Ω	8.3mH/Ω

Output Entity Parameters, Group IIB:

Parameters	Series 4200	
	gas application	dust application



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Terminals	Pick Off's (RPO-), (RPO+), (LPO-), (LPO+)	Pick Off's (RPO-), (RPO+), (LPO-), (LPO+)
U _o	6.51V	6.51V
I _o	2.63mA	2.63mA
P _o	4.3mW	4.3mW
C _o	500μF	500μF
L _o	20.5H	20.5H
L _o /R _o	33.2mH/Ω	33.2mH/Ω

Output Entity Parameters, Group IIC:

Parameters	Series 4200	
	gas application	dust application
Terminals	J6 Pins 1(RTD_SNS),2(RTD_LO),9(RTD_HI)	J6 Pins 1(RTD_SNS),2(RTD_LO),9(RTD_HI)
U _o	6.51V	6.51V
I _o	12.3mA	12.3mA
P _o	20mW	20mW
C _o	22μF	22μF
L _o	235mH	235mH
L _o /R _o	1.78mH/Ω	1.78mH/Ω

Output Entity Parameters, Group IIB:

Parameters	Series 4200	
	gas application	dust application
Terminals	J6 Pins 1(RTD_SNS),2(RTD_LO),9(RTD_HI)	J6 Pins 1(RTD_SNS),2(RTD_LO),9(RTD_HI)
U _o	6.51V	6.51V
I _o	12.3mA	12.3mA
P _o	20mW	20mW
C _o	500μF	500μF
L _o	940mH	940mH
L _o /R _o	7.1mH/Ω	7.1mH/Ω

Conditions of Acceptability

1. Installed as per. control drawing CSA-D-IS for Hazardous and Non-Hazardous areas



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APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 61010-1-12, 3 rd Ed.	-	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use -- Part 1: General Requirements
CAN/CSA/C22.2 No. 213-17	-	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA C22.2 No. 25-17	-	Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
CAN/CSA C22.2 No. 30-M1986(R2012)	-	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CAN/CSA-C22.2 No. 60079-0:15	-	Explosive atmospheres - Part 0: Equipment - General requirements
CAN/CSA C22.2 No. 60079-1:16	-	Electrical apparatus for explosive gas atmospheres Part 1: Flameproof enclosures "d"
CAN/CSA C22.2 No. 60079-7:16	-	Explosive atmospheres — Part 7: Equipment protection by increased safety "e"
CAN/CSA-C22.2 No. 60079-11:14	-	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
CAN/CSA C22.2 No. 60079-31:16	-	Explosive atmospheres — Part 31: Equipment dust ignition protection by enclosure "t"
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
UL Std. No. 61010-1, Ed. 3	-	Safety requirements for electrical equipment for measurement, control, and laboratory use
UL Std. No 913, 8 th Edition	-	Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.
UL 12.12.01, 9 th Edition	-	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
UL Std. No. 60079-0, 6 th Edition	-	Explosive atmospheres – Part 0: Equipment - General requirements
UL 60079-1 7 th Edition	-	Electrical apparatus for explosive gas atmospheres Part 1: Flameproof enclosures "d"
UL 60079-7 6 th Edition	-	Explosive atmospheres — Part 7: Equipment protection by increased safety "e"
UL Std. No. 60079-11, 6 th Edition	-	Explosive atmospheres – Part 11: Equipment Protection by Intrinsic safety "i"
UL 60079-31, 2 th Edition	-	Explosive Atmospheres – Part 31: Equipment Dust Ignition Protection by Enclosure "t"



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UL 1203, 5 th Edition		Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
FM3600:2011	-	Electrical Equipment for use in Hazardous (Classified) Locations General Requirements
FM3615:2006	-	Explosion-proof Electrical Equipment General Requirements
ANSI/IEC 60529:2004	-	Degrees of protection provided by enclosures (IP Code)
UL 50E, 2st Edition	-	Enclosures for Electrical Equipment

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 marking details appear:

- The CSA Monogram with adjacent qualifiers: , or , or . The products listed 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.
- 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
- Complete electrical rating (amps, hertz, and volts)
- Temperature code or equivalent, Ambient temperature range
- Hazardous Location designations
- serial number, date code or equivalent
- For intrinsically safe equipment, the words "INTRINSICALLY SAFE" or "IS" or "I.S." or the symbol "Ex ia".
- Temperature Code
- Maximum ambient -40°C to +65°C.
- CSA Enclosure Type 4X/IP66

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



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WARNING – EXPLOSION HAZARD DO NOT DISCONNECT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS

AVERTISSEMENT – RISQUE D'EXPLOSION. NE PAS DÉBRANCHER PENDANT QUE LE CIRCUIT EST SOUS TENSION OU À MOINS QUE L'EMPLACEMENT NE SOIT EXEMPT DE CONCENTRATIONS INFLAMMABLES.

WARNING - SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY
AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SECURITE INTRINSEQUE.

WARNING - A SEAL SHALL BE INSTALLED WITHIN 50mm OF THE ENCLOSURE
ATTENTION - UN SCÈLEMENT DOIT ÊTRE INSTALLÉ À MOINS DE 50 mm DU BOÎTIER



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
70183767	02/12/2019	<p>Evaluation of 4200 Transmitter to NA requirements.</p> <p>CI I, Div 1, Gr BCD; CI I, Div 2, Gr ABCD. CI II, Div 1, Gr EFG</p> <p>Assumptions:</p> <ul style="list-style-type: none">*Ex d testing is being completed under project QL-0110808*product being certified is ready for certification & has been designed in accordance with the applicable requirements.*CSA has received appropriate technical documentation sufficient in detail to demonstrate (with the aid of samples) full compliance with the listed standards.*the standards quoted are the only required standards for assessment.*all ancillary components & equipment are suitably certified & compatible with the overall assembly.*testing to be conducted at CSA and Emerson (Possible Witness Testing to be determined by the applicable certifiers and Emerson upon review of all required tests to be performed and test capability of Emerson). <p>Subsequent review of the full information may indicate additional assessment. If required, quote may be revised to reflect Scope change.</p>