



Certificate of Compliance

Certificate: 1439602

Master Contract: 152450

Project: 80030821

Date Issued: 2020-10-01

Issued To: Micro Motion Incorporated
7070 Winchester Cir
Boulder, Colorado, 80301
United States

Attention: DNU Ray Stengl DNU

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: *Khushboo Patel*
Khushboo Patel

PRODUCTS

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - To US Requirements

Class I, Division 2, Groups A, B, C and D;

Class II, Division 1, Groups E, F and G

Mass Flow Sensors- Models:

H025: Rated MWP 2320 PSI;

H050: Rated MWP 1500 PSI;

H100, H150, H200, H300, H400: Rated MWP 1450 PSI;

Temperature code T6;

Rated 10.5VDC, 75 mA. Dual Seal. Enclosure Type 4X.

T_{amb} = -40°C to +65°C

Model Nomenclature for H series: Hbbb c ddd e f g 2 i j k l m nn

bbb - 3 numbers for Sensor Size (025, 050, 100, 150, 200, 300, or 400)



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c - Flow Tube Material

- A = Stainless Steel tube, High Temp. (350°C)
- B = Nickel Alloy C22 Tube, High Temp. (350°C)
- P/J = Stainless Steel Tube, High Pressure
- H = Nickel Alloy C22 Tube
- S/F/G = Stainless Steel Tube (marketing differentiation only)

ddd – Any alphanumeric digit, indicating Process Connections (does not affect safety of device)

e – Any alphanumeric digit, indicating Case Option (does not affect safety of device)

f - Electronic Interface

- 0 = integral 2400
- 1 = integral 2400 with extender
- 2 = aluminum enhanced core processor
- 3 = stainless enhanced core processor
- 4 = aluminum enhanced core processor with extender
- 5 = stainless enhanced core processor with extender
- 6 = aluminum enhanced core processor (for OEMs)
- 7 = stainless enhanced core processor (for OEMs)
- 8 = aluminum enhanced core processor with extender (for OEMs)
- 9 = stainless enhanced core processor with extender (for OEMs)
- A = local core processor
- B = local core processor with extender
- C = integral 1700/2700
- D = local core processor (for OEMs)
- E = local core processor with extender (for OEMs)
- F = integral 5700
- H = 9 wire junction box with extender
- J = integral 2200S
- K = Integral mount improved surface finish FMT transmitter
- L = Integral mount standard finish FMT transmitter
- Q = aluminum core processor
- R = 9-wire junction box
- S = 9-wire stainless junction box
- T = 9-wire Stainless junction box with extender
- U = integral 2200S with extender
- V = aluminum core processor with extender
- W = aluminum core processor (for OEMs)
- Y = aluminum core processor with extender (for OEMs)
- Z = Requires Additional Selection from Other Electronic Interface

g – Letter, indicating Conduit Connections

i – Letter, indicating Language (does not affect safety of device)

j - Reserved for Future Option 1 (blank, or 0)

k - Alphanumeric digit indicating Calibration Option (does not affect safety of device)

l – Letter, indicating Measurement Application Software (does not affect safety of device)

m – Letter, indicating Factory Options (does not affect safety of device)

nn – Alphanumeric digit, indicating Other Electronic Interface (use only when Electronic Interface = Z)

- UA = 4200 Integral Mount Transmitter



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Conditions of Acceptability:

This equipment may only be powered by a power supply unit with a limited energy electric circuit in accordance with CAN/CSA C22.2 No. 61010-1-12 and ANSI/UL 61010-1, or Class 2 as defined in the Canadian Electrical Code C22.1, Section 16-200 and/or National Electrical Code (NFPA 70), article 725.121.

2258- 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

2258- 83 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations - To US Requirements

Class I, II Division 1, Groups C, D, E, F and G; T3A

Class I, Division 2, Groups A, B, C and D; T6

Mass Flow Sensors - Models:

H025. MWP 2320 PSI;

H050. MWP 1500 PSI;

H100, H150, H200, H300, H400. MWP 1450 PSI;

Intrinsically Safe when connected per installation instructions drawing EB-20075559. Dual Seal. Enclosure Type 4X.

T_{amb} = -40°C to +65°C

Model Nomenclature for H series: Hbbb c ddd e f g h i j k l m nn

Where

bbb - 3 numbers for Sensor Size (025, 050, 100, 150, 200, 300, or 400)

c - Flow Tube Material

A = Stainless Steel tube, High Temp. (350°C)

B = Nickel Alloy C22 Tube, High Temp. (350°C)

P/J = Stainless Steel Tube, High Pressure

H = Nickel Alloy C22 Tube

S/F/G = Stainless Steel Tube (marketing differentiation only)

ddd – Any alphanumeric digit, indicating Process Connections (does not affect safety of device)

e – Any alphanumeric digit, indicating Case Option (does not affect safety of device)

f - Electronic Interface

2 = aluminum enhanced core processor

3 = stainless enhanced core processor

4 = aluminum enhanced core processor with extender

5 = stainless enhanced core processor with extender

6 = aluminum enhanced core processor (for OEMs)

7 = stainless enhanced core processor (for OEMs)

8 = aluminum enhanced core processor with extender (for OEMs)

9 = stainless enhanced core processor with extender (for OEMs)

A = local core processor

B = local core processor with extender

C = integral 1700/2700

D = local core processor (for OEMs)

E = local core processor with extender (for OEMs)

F = integral 5700



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H = 9 wire junction box with extender
 J = integral 2200S
 Q = aluminum core processor
 R = 9-wire junction box
 S = 9-wire stainless junction box
 T = 9-wire Stainless junction box with extender
 U = integral 2200S with extender
 V = aluminum core processor with extender
 W = aluminum core processor (for OEMs)
 Y = aluminum core processor with extender (for OEMs)
 Z = Requires Additional Selection from Other Electronic Interface

g – Letter, indicating Conduit Connections

h - Approvals

C = CSA Class I, Div 1, Div 2 (CANADA ONLY)

A = CSAc-us Class I, Div 1, Div 2 (US & CANADA)

i – Letter, indicating Language (does not affect safety of device)

j - Reserved for Future Option 1 (blank, or 0)

k - Alphanumeric digit indicating Calibration Option (does not affect safety of device)

l – Letter, indicating Measurement Application Software (does not affect safety of device)

m – Letter, indicating Factory Options (does not affect safety of device)

nn – Alphanumeric digit, indicating Other Electronic Interface (use only when Electronic Interface = Z)

UA = 4200 Integral Mount Transmitter

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10 (R2015)	General requirements — Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 94.1-15, Second Edition	Enclosures for Electrical Equipment, Non-Environmental Considerations
CAN/CSA-C22.2 No. 94.2- 15	Enclosures for Electrical Equipment, Environmental Considerations
ANSI/UL 50-15 <i>Thirteenth Edition</i>	Enclosures for Electrical Equipment, Non-Environmental Considerations
ANSI/UL 50E-15 <i>Second Edition</i>	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
ANSI/UL 61010-1-2018 <i>Third Edition</i>	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
CSA C22.2 No. 25-1966 (R2009)	Enclosures for Use in Class II Groups E, F, and G Hazardous Locations



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CAN/CSA C22.2 No. 157-92 <i>(Withdrawn 6-2017) See Notice Hazardous Locations Products No. 23</i>	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
CAN/CSA C22.2 No. 213-17 + UPD 1 <i>(2018) + UPD 2 (2019)</i>	Non-incendive Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations
ANSI/UL 121201-2017 <i>(R2019) Ninth Edition</i>	Non-incendive Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations
ANSI/UL 1203-2009 <i>Fourth Edition</i>	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
ANSI/UL 913-2015 <i>Seventh Edition</i>	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, III, Division 1, Hazardous (Classified) Locations
ANSI/ISA 12.27.01-2003 <i>Superseded</i>	Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids

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 shall appear on the nameplates:

- Submitter's name "Micro Motion", or CSA Master Contract number "152450", adjacent to the CSA Mark in lieu of manufacturer's name.
- Catalogue / Model designation, as specified in the PRODUCTS section above.
- Electrical ratings, as specified in the PRODUCTS section, above.
- ISO 60417, Symbol 5031 $\overline{\text{---}}$ adjacent to the DC input rating.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Date code / Serial number traceable to month and year of manufacture.
- Hazardous Location designations, as shown in the PRODUCTS section above. The word "Class" may be abbreviated "CL", the word "Division" may be abbreviated "DIV", and the word "Groups" may be abbreviated "GRP" or "GP".
- Temperature Code, as specified in the PRODUCTS section, above.
- Enclosure rating: Type 4X. (Optional)



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- The words "Dual Seal".
- Maximum process pressure rating, as specified in the PRODUCTS section, above.
- Process temperature range.
- The CSA Mark with or without the "C" and "US" indicators, as shown on the Certificate of Conformity.
- The manufacturing location is identified if the equipment can be produced in more than one facility.

For products specified in Class 2258 03/83 in the PRODUCTS section:

- The words "INTRINSICALLY SAFE" and "SECURITE INTRINSEQUE", and the symbol "Exia"
- The words "Install per Installation Instructions drawing EB-20075559" or equivalent.

For products specified in Class 2258 02/82 in the PRODUCTS section:

- The following optional additional markings may be used for USA only: "Class I, Zone 2, Group IIC T6" and "Zone 22, Group IIIB, T85°C"



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
80030821	2020-10-01	Update to Report 1439602 is to add new models H150 and H400 sensor, perform/clarify sensor transmitter combination calculations, add model nomenclature for sensors and update standards.
70186726	2018-10-03	Update CSA Report 1439602 to add models H300x(E,F,P).
70079629	2016-12-07	Update CSA Report 1439602 to add models H300x(E,F,P).
2698320	2014-06-17	Update to Report 1439602 to include alternate adhesive epoxy for affixing SS metal labels onto the H Sensors painted enclosure surface; based on testing conducted under project 152450-2668081.
2207573	2009-09-16	Update report 1439602 for H Series to include Dual Seal testing and evaluation to ANSI/ISA 12.27.01-2003; this project to include witness testing for F, H and R Series Sensors.
1742220	2006-11-01	Update CSA Report 1439602; include alternate Drive and PO Coils for H025, H050 and H100. Update to include alternate Feed-Thru.
1512065	2004-01-21	Update to file for alternate H200 Pickoff coil. No further testing is deemed necessary.
1458744	2003-08-08	Addition of H300 Sensor
1439602	2003-05-30	Original certification of H series.