Certificate of Compliance

Certificate: 70204214 **Master Contract:** 167018

Project: 70204214 **Date Issued:** 2021-04-21

Issued To: **Sensia**
7000 Nix Dr
Duncan, Oklahoma, 73533
United States

Attention: Kevin Prewett

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: *Adrian Baquiran*
Adrian Baquiran

C US

PRODUCTS

CLASS - C225802 - PROCESS CONTROL EQUIPMENT For Hazardous Locations
CLASS - C225882 - PROCESS CONTROL EQUIPMENT For Hazardous Locations - Certified to US Standards
CLASS - C225206 - PROCESS CONTROL EQUIPMENT
CLASS - C225286 - PROCESS CONTROL EQUIPMENT Certified to US Standards

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CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - To U.S. Requirements

Part A

Class I, Division 1, Groups BCD T6
Class II, Division 1, Groups EFG T85C; Class III

Enclosure Type 4

Tamb: -40^{0}C to 70^{0}C (Lithium-Powered)
Tamb: -18°C to 55°C (Alkaline-Powered)

NUFLO Flow Totalizer Model MC Synergy EXP A-B-C-E-F-G-H-I-J

- A- Division 1 enclosure
- B- Enclosure Material: Aluminum (0), Stainless (1)
- C- Meter Connection: None (0), CSA Div 1 Reducer and Union (1)
- D- Optional Pickup Extension: None (0), Standard (1)
- E- Communications Adapter Options: None (0), RS-485 (1xx), USB (2xx)
  x=Communications Adapter Materials: Brass (Ax), Ni-Brass (Bx), Zi-Steel (Cx), Stainless (Dx)
  x=Communications Adapter Plug Materials: Brass (1), Ni-Brass (2), Zi-Steel (3), Stainless (4)
- F- Reset Switch: None (0), Reset and Control (1x)
  X=Switch hardware material: Brass (A), Ni-Brass (B), Zi-Steel (C), Stainless (D)
- G- Battery: None (0), Lithium (1), Lithium, x2 (2), Alkaline - CSA (3)
- H- IS Barrier Options: None (0) Conduit Seal (1)
- I- Expansion Board Options: None (0), Analog (1), Ethernet (2)
- J- Stopping Plug Ports 0, 1, 2 & followed by Plug Material: Brass (A), Ni-Brass (B), Zi-Steel (C), Stainless (D)

External Power: 6-27 VDC, 60 mA Max.
Loop Power through analog output circuit 12.5 -27 VDC, 60 mA Max.
Ethernet power 6-27 VDC, 60 mA Max.
Battery Powered 3.6 VDC, 1.0 mA
Digital outputs powered 6 to 27 VDC, 60 mA Max.

May be supplied with optional [Exia] rated RS485 communication output for Groups A,B,C,D,E,F,G

Provides an Intrinsically safe 2 wire RS485 data connection when connected per drawing X-371226 or figure 2.23 in user manual when the only power source is the optional Lithium battery pack(s).

Note: For units with battery power only, the digital outputs shall be powered from an external power source. For other units, the digital outputs may be powered from the MC SYNERGY or from an external source.

Part B

Class I, Zone 1 AEx db IIB+H2 T6 Gb
Zone 21 AEx tb IIIC T85C
Ex db IIB+H2 T6 Gb
Ex tb IIIC T85C Db
Enclosure Type 4, IP66

Tamb: -40^{0}C to 70^{0}C (Lithium-Powered)
Tamb: -18°C to 55°C (Alkaline-Powered)

NUFLO Flow Totalizer Model MC Synergy EXP A-B-C-E-F-G-H-I

- A- Zone 1
- B- Enclosure Entries: ¾ inch NPT (0) M20x1.5 (1)
- C- Enclosure Material: Aluminum (0), Stainless (1)
- D- Meter Connection: None (0), NA Zone Ex d IIC Reducer and Union(1x), Ex D IIC Cable Entry Gland (2x), Standoff Tube (3x)
  x=Material (Standoff Tube Stainless or Ni-Brass only): Stainless(A), Ni-Brass(B), Brass(C), Zi-Steel(D)
- E- Standoff Tube Type: None (0), ¾" MNPT x 3/4" FNPT (1), ¾" FNPT x 1" FNPT (2), M20x1.5M x 3/4" FNPT (3), M20x1.5M x ¾" FNPT with ¾" MNPT to M20x1.5 Adapter (4)
  x=Standoff Tube Length : 90.49 mm (A), 152 mm (B), 228.6 mm (C)
- F- Communications Adapter Options: None (0), RS-485 (1xx), USB (2xx)
  x=Communications Adapter Materials: Brass (Ax), Ni-Brass (Bx), Zi-Steel (Cx), Stainless (Dx)
  x=Communications Adapter Plug Materials: Brass (1), Ni-Brass (2), Zi-Steel (3), Stainless (4)
- G- Reset Switch: None (0), Reset and Control (1x)
  X=Switch hardware material: Brass (A), Ni-Brass (B), Zi-Steel (C), Stainless (D)
- H- Battery: None (0), Lithium (1), Lithium, x2 (2), Alkaline (3)
- I- Expansion Board Options: None (0), Analog (1), Ethernet (2)
- J- Number of Plugs: 0, 1xx, 2xx
  x=Plug Thread: ¾"NPT (A), M20x1.5 (B)
  x=Plug Materials: Brass (1), Ni-Brass (2), Zi-Steel (3), Stainless (4)

External Power: 6-27 VDC, 60 mA Max.
Loop Power through analog output circuit 12.5 -27 VDC, 60 mA Max.
Ethernet power 6-27 VDC, 60 mA Max.
Battery Powered 3.6 VDC, 1.0 mA
Digital outputs powered 6 to-27 VDC, 60 mA Max.

Note: For units with battery power only, the digital outputs shall be powered from an external power source. For other units, the digital outputs may be powered from the MC SYNERGY or from an external source.

Part C

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

Flow Totalizer Model MC Synergy WP; rated 6 to 27 Vdc, 60mA, T5 @ Tamb -40°C to +70°C **(**Lithium-Powered) Tamb: -18°C to 55°C (Alkaline-Powered), Enclosure Type 4.

Flow Totalizer Model MC-Synergy WP A-B-C-D-E

A- Division 2 Enclosure
B- Meter Connection: None (0), Direct Mount (1x), Remote Mount (2x)
X=Weather Proof Conduit Type: None (0), Type ST (Ax), Type STG (Bx)
X=Weather Proof Conduit Quantity: 1, 2, 3
C- TFM Electrical Connection: None (0), Standard (1)
D- Battery: None (0), Lithium (1), Lithium x2 (2), Alkaline (3)
E- Expansion Boards: None (0), Analog (1), Ethernet (2)

External Power: 6-27 VDC, 60 mA Max.
Loop Power through analog output circuit 12.5 --27 VDC, 60 mA Max.
Ethernet power 6-27 VDC, 60 mA Max.
Battery Powered 3.6 VDC, 1.0 mA
Digital outputs powered 6 to 27 VDC, 60 mA Max**.**

Note: For units with battery power only, the digital outputs shall be powered from an external power source. For other units, the digital outputs may be powered from the MC SYNERGY or from an external source.

CLASS 2252 06 - PROCESS CONTROL EQUIPMENT
CLASS 2252 86 - PROCESS CONTROL EQUIPMENT (Certified to U.S. Standards)

Flow Totalizer Model MC Synergy WP; rated 6-27 Vdc, 60mA, Tamb -40°C to +70°C **(**Lithium-Powered), or Tamb: -18°C to 55°C (Alkaline-Powered), Enclosure Type 4.

Note:
1. The above model is Equipment Class I, Pollution Degree 2, and Measurement Category III.
2. When externally powered, the MC Synergy WP shall be powered by an ELV power source.

APPLICABLE REQUIREMENTS

To Part A and B and C (MC SYNERGY EXP DIVISION & ZONE & DIVISION MC SYNERGY WP)

CSA CAN/CSA-C22.2 NO. 61010-1-12, UPD1:2015, UPD2:2016	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements - Third Edition
UL Std. No. 61010-1 3rd Edition (2016)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirement – Third edition
CSA C22.2 No. 94.2-15 Second Edition	Enclosures for Electrical Equipment, Environmental Considerations
UL 50E Second Edition 2015	Enclosures for Electrical Equipment, Environmental Considerations

To Part A only (MC SYNERGY EXP Division)

C22.2 No. 30-M1986 (r2016)	Explosion-Proof Enclosures for Use in class I hazardous locations
C22.2 No. 25-17	Enclosures for use in Class II, Division 1, Groups E, F, and G hazardous locations
UL Standard 1203, Fifth Edition	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
CAN/CSA-C22.2 No. 60079-11:14 (IEC 60079-11:2011, MOD)	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “I”
UL 913, 8th Ed.	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations

To Part B only (MC SYNERGY EXP Zone)

CSA C22.2 No. 60079-0:19 (IEC 60079-0:2017 Ed. 7, MOD)	Explosive atmospheres - Part 0: Equipment - General requirements –
CAN/CSA-C22.2 No. 60079-1:11 (IEC 60079-1:2007 Ed. 6, MOD)	Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures “d”
CAN/CSA-C22.2 No. 60079-31:15 (IEC 60079-31:2013, MOD)	Explosive atmospheres — Part 31: Equipment dust ignition protection by enclosure "t"

UL 60079-0 Ed. 7	Explosive atmospheres - Part 0: Equipment - General requirements
UL 60079-1 Ed.7 2015	Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures “d”
UL 60079-31 Ed. 2 2015	Explosive atmospheres — Part 31: Equipment dust ignition protection by enclosure "t"

To Part C only (MC SYNERGY WP)

UL 121201 Ninth Edition 2017	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
C22.2 No 213-17	Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations

MARKINGS

Please refer to MARKINGS section of the Descriptive Report and Test Results for details.

Supplement to Certificate of Compliance

Certificate: 70204214 **Master Contract:** 167018

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
70204214	2021-04-21	Certification of Model MC Synergy EXP and Model MC Synergy WP Flow Totalizer Transmitter for use in hazardous locations. Also certification of the ordinary locations version of the Model MC Synergy WP Flow Totalizer Transmitter.