Certificate of Compliance

Certificate:	80194672	**Master Contract:**	200600
Project:	80194672	**Date Issued:**	2025-06-26
Issued to:	**Endress+Hauser Wetzer GmbH Co. KG** **Obere Wank 1** **Nesselwang, Bavaria 87484** **Germany** **Attention:** Michael Pfanzelt	**Issued by:**	*Amandeep Khatra* Amandeep Khatra

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.

PRODUCTS

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

Model(s)
RU48, FMA90

[Ex ia Ga] IIC / [AEx ia Ga] IIC
[Ex ia Da] IIIC / [AEx ia Da] IIIC
Associated Apparatus for Class I, Division 1, Groups A, B, C, D
Associated Apparatus for Class I, Groups A, B, C & D; Class II, Groups E, F & G; Class III

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RU48 Process Indicator / FMA 90 Control Unit - DIN mount, Panel mount and Polymeric housing field mounted version. $T_{ambient}$: -35°C to +60°C (Field Unit or Panel mount), -40°C to +60°C (DIN rail option)

Notes:
Specifications for the range of environmental conditions for which the equipment is designed, including the following:

- Pollution degree 2
- Humidity: 5- 95% Non-condensing for (DIN Rail & Panel Mount Version)
- Overvoltage category II.
- Mode of operation: continuous.
- Altitude 2000m.
- Field Unit: IP65, Panel Unit IP65 (display only). DIN Version: IP20

Rating:
Supply (Terminals 1.1, 1.2):
10.5 Vdc - 32Vdc or 100-230 VAC (Nominal) or $85V_{AC} - 253V_{AC}$ (extended)

Open collectors (Terminals 61, 62 & optional terminals 63, 64 & 65, 66)
30Vdc, 120mA

Digital inputs/switch inputs (optional) Terminals 51, 52, 53, 54, 55
30Vdc

Output circuits, limit value relay (Terminals 111, 112, 114, Terminals 211, 212, 214 (Optional), Terminals 313, 314 (Optional), Terminals 413, 414 (Optional), Terminals 513, 514 (Optional)
250Vac, 4A or 30Vdc, 4A

Analog output circuits (Terminals 71, 72 & 73, 74(Optional):
U = 30Vdc, 0/4-20mA

Analog Input circuit (Sensor connections) – Terminals 11, 12, 13 & 21, 22, 23(Optional)
Uo/Voc = 27.3 Vdc, Io/Isc = 84.1 mA, Po = 574mW
Ci = Negligible
Li = Negligible

Maximum connection values for single appearance

EPL	Lo	Co
Ex ia IIC	1.7 mH	65nF
Ex ia IIB	25 mH	551nF
Ex ia IIA	47 mH	1790nF

Maximum combined values

EPL	Lo	Co
Ex ia IIC	0.5 mH	0.065µF
Ex ia IIB	2 mH	0.390µF
Ex ia IIA	20 mH	1.3µF

Order Code <aabcdefghijjkkllmmnnooppqq>

aa = CB
b = 1, 2
d = A, B, C
f = 1, 2
ceghijjkkllmmnnooppqq is neither related to Explosion Safety nor in the scope.

Option Code details:

RU48-	**aabcdefghijjkkllmmnnooppqq**	
	LEVEL TRANSMITTER FMA90	
FMA90-	**aabcdefghijjkkllmmnnooppqq**	Comments
aa	**Approval:**	
CB	CSA C-US [Ex ia], I, II, III/1/ABCDEFG	
b	**Power Supply:**	
1	100-230 VAC (Nominal) or $85V_{AC}$ – $253V_{AC}$ (extended)	
2	10.5-32 VDC	
c	**Application Package:**	Not safety relevant
1	Universal (level, pump control, open channel flow measurement, data logging)	
2	Universal + extended process data management	
d	**Housing:**	
A	DIN rail mounting, Polycarbonate, IP20	
B	Panel mounting, Polycarbonate, front IP65, rear side IP20, 96x96	
C	Field mounting, Polycarbonate, IP65 NEMA4x	
D	Field mounting, Aluminium, IP65 NEMA4x	
e	**Display; Operating:**	Not safety relevant
1	W/o; RJ45 Ethernet	
2	W/o; RJ45 Ethernet + WLAN	
3	3.5" TFT touch display; RJ45 Ethernet	
4	3.5" TFT touch display; RJ45 Ethernet + WLAN	
f	**Sensor Connection, Analog Output:**	
1	1x 4-20mA/HART input; 1x 4-20mA output	
2	2x 4-20mA/HART input; 2x 4-20mA output	
g	**Relay Output:**	Not safety relevant
1	1x SPDT	
5	5x (2x SPDT, 3x SPST)	
h	**Digital Input; Switch Output:**	Not safety relevant
A	W/o; 1x open collector	
B	4x; 3x open collector	
i	**Communication:**	Not safety relevant
A	HART output	
B	PROFINET	
C	EtherNet/IP	
D	Modbus TCP slave	
jj	**Operating Language Display:**	Not safety relevant

kk	**Application Package:**	Not safety relevant
ll	**Calibration:**	Not Safety relevant
mm	**Service:**	Not Safety relevant
nn	**Additional Approval:**	Not Safety relevant
oo	**Accessory Mounted:**	Not Safety relevant
pp	**Accessory Enclosed:**	Not in the scope
qq	**Marking:**	Not safety relevant

Conditions of Acceptability

1. The RU48 Process Indicator / FMA 90 Control Unit (DC Version) shall 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.
2. Service may only be performed by a qualified person.
3. For the 85 to 253 VAC version (mains connection), a switch marked as a circuit breaker, as well as an overload protection device (rated power ≤ 10 A) shall be fitted in the supply line near the device (easy to reach).
4. The end enclosure (DIN rail & Panel Version), and the polymeric enclosure for Field Unit shall not be opened when the device is energized.
5. The DIN/Panel versions shall be installed in a suitable enclosure based on the environmental conditions of the end application and acceptable to the Authority having Jurisdiction.
6. The polymeric field housing shall be fitted with suitable cable entry devices compatible with the environmental conditions and Ingress protection level required

APPLICABLE REQUIREMENTS

ANSI/UL 61010-1 3rd Edition (2012), AMD1:2018 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements

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

CSA C22.2 NO. 60079-0:19 (R2024) - Explosive atmospheres - Part 0: Equipment - General requirements - Fourth Edition

ANSI/UL 60079-0-2020 Seventh Edition - Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements

ANSI/UL 60079-11:2013 - Sixth Edition - Standard for Safety Explosive Atmospheres - Part 11: Equipment Protection By Intrinsic Safety 'I'

CAN/CSA-C22.2 No 60079-11:14 - Explosive Atmospheres - Part 11: Equipment protection by intrinsic safety 'i'

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Notes:

Products certified under Class(es) C225804, C225884 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

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
80194672	2025-06-26	Original cCSAus certification of Process display unit RU48 and transmitter unit Type FMA90 for level and flow measurement.