



Certificate of Compliance

Certificate: 1893497

Master Contract: 200600

Project: 80121984

Date Issued: February 8, 2023

Issued To: Endress+Hauser Wetzer GmbH Co. KG
Obere Wank 1
Nesselwang, Bavaria, 87484
Germany

Attention: Michael Pfanzelt

The products listed below are eligible to bear the CSA Mark shown

Issued by: 





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PRODUCTS

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations

Class I, Division 1, Groups A, B, C and D:

- iTEMP Temperature Transmitter Head. Type TMT84 and TMT85 with or without optional display module type TID10. Intrinsically Safe when installed per drawing 34 02 00 112.

Codes TMT84-C2Ac+d+eeffgg and TMT85- C2Ac+d+eeffgg

Where:

- c = Electrical connections: 1 (push in terminals), or 2 (screw terminals).
- d = Field housing (any allowed)
- ee = Input Configuration (any allowed)
- ff = Optional Display E1: TID10 Installed, none: TID10 not installed
- gg = Calibration (any allowed)

Terminals	FISCO Parameters	Entity Parameters	
1/+ and 2/- / Input	$U_i = 17.5 \text{ V}$ $I_i = 380 \text{ mA}$ $P_i = 5.5 \text{ W}$ FISCO Field Device	$U_i = 24 \text{ V}$ $I_i = 250 \text{ mA}$ $P_i = 1.2 \text{ W}$ $L_i = 10 \mu\text{H}$ $C_i = 5 \text{ nF}$	
3 ... 7 / Sensor Interface	Entity Parameters		
	$U_o = 7.2 \text{ V}$ $I_o = 25.9 \text{ mA}$ $P_o = 46.7 \text{ mW}$		
	Maximum permissible external inductance (L_o) and capacitance (C_o)		
		L_o	C_o
	Groups A&B	59 mH	13.5 μF
Group C	238 mH	240 μF	
Group D	477 mH	1000 μF	
Ambient Temperature Range	T-Code	Temperature Range	
	T6	$-40 \text{ }^\circ\text{C} \leq T_a \leq +55 \text{ }^\circ\text{C}$	
	T5	$-40 \text{ }^\circ\text{C} \leq T_a \leq +70 \text{ }^\circ\text{C}$	
	T4	$-40 \text{ }^\circ\text{C} \leq T_a \leq +85 \text{ }^\circ\text{C}$	

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT Process Control equipment for Hazardous Locations

Class I, Div. 1, Groups A, B, C & D; Class II, Div. 1 Groups E, F & G; Class III:



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- Temperature Transmitter, Type iTEMP TMT84 PA and TMT85 FF, rated 9-32 Vdc, 23 mA with or without optional display module type TID10. Provided with die cast aluminum or stainless-steel enclosure. Conduit entry sizes 1/2 inch NPT or M20 x 1.5; Enclosure Type 4X; Explosion-Proof when installed per Drawing 34 02 00 114.

Ambient Temperature Range	
T-Code	iTEMP TMT84 and TMT85 with or without optional display TID10
T4/T135°C	-40 °C ≤ Ta ≤ +85 °C
T5/T100°C	-40 °C ≤ Ta ≤ +80 °C
T6/T85°C	-40 °C ≤ Ta ≤ +70 °C

Codes TMT84-C3Ac+d+eeffgg and TMT85-C3Ac+d+eeffgg

Where:

c = Electrical connections: 1 (push in terminals), or 2 (screw terminals).

d = Field housing:

D (TA30H, Alu, 2x M20x1.5, w/o display window, explosion-proof enclosure)

E (TA30H, Alu, 2x M20x1.5, glass display window, explosion-proof enclosure)

F (TA30H, Alu, 2x NPT1/2, w/o display window, explosion-proof enclosure)

G (TA30H, Alu, 2x NPT1/2, glass display window, explosion-proof enclosure)

N (TA30H, 316L, 2x M20x1.5, w/o display window, explosion-proof enclosure)

O (TA30H, 316L, 2x M20x1.5, glass display window, explosion-proof enclosure)

P (TA30H, 316L, 2x NPT1/2, w/o display window, explosion-proof enclosure)

Q (TA30H, 316L, 2x NPT1/2, glass display window, explosion-proof enclosure)

ee = Input Configuration (any allowed)

ff = Optional Display E1: TID10 Installed, none: TID10 not installed

gg = Calibration (any allowed)

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

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

- iTEMP Temperature Transmitter Head. Type TMT84 and TMT85 with or without optional display module type TID10. Non-Incendive Field Wiring Apparatus when installed per drawing 34 02 00 112.

Codes TMT84-C2Ac+d+eeffgg and TMT85- C2Ac+d+eeffgg

Where:

c = Electrical connections: 1 (push in terminals), or 2 (screw terminals).



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d = Field housing (any allowed)
 ee = Input Configuration (any allowed)
 ff = Optional Display E1: TID10 Installed, none: TID10 not installed
 gg = Calibration (any allowed)

Terminals	NIFW Parameters		
1/+ and 2/- / Input	$U_i / V_{MAX} = 35 \text{ V}$ $L_i = 10 \mu\text{H}$ $C_i = 5 \text{ nF}$		
3 ... 7 / Sensor Interface	$U_o / V_{OC} = 7.2 \text{ V}$ $I_o / I_{SC} = 25.9 \text{ mA}$ $P_o = 46.7 \text{ mW}$		
	Maximum permissible external inductance (Lo/La) and capacitance (Co/Ca)		
		Lo/La	Co/Ca
	Groups A&B	59 mH	13.5 μF
	Group C	238 mH	240 μF
Group D	477 mH	1000 μF	
Ambient Temperature Range	T-Code	Temperature Range	
	T6	$-40 \text{ }^\circ\text{C} \leq T_a \leq +55 \text{ }^\circ\text{C}$	
	T5	$-40 \text{ }^\circ\text{C} \leq T_a \leq +70 \text{ }^\circ\text{C}$	
	T4	$-40 \text{ }^\circ\text{C} \leq T_a \leq +85 \text{ }^\circ\text{C}$	

Conditions of Acceptability:

The above units are certified as a component for use within an enclosure where the suitability of the final combination is to be determined by authority having jurisdiction.

CLASS 2252 06 - PROCESS CONTROL EQUIPMENT

- Temperature Head Transmitter, Model Series TMT84 PA and TMT85 FF, rated 9-32V dc, 23 mA with either one or two temperature sensor inputs for resistance thermometers, thermocouples and resistance and voltage transmitters. Permanently connected to a SELV source, Installation Category I, Pollution degree 2.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 30:20	Explosion-proof equipment
CSA C22.2 No. 25-1966 (R2014)	Enclosures for use in Class II, Division 1, Groups E, F, and G hazardous locations
CSA C22.2 No. 94.2-15	Enclosures for Electrical Equipment, Environmental Considerations
CAN/CSA C22.2 No. 157-92	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations



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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.
CAN/CSA C22.2 No. 213-M1987	Nonincendive Electrical Equipment For Use in Class I, Division 2 Hazardous Locations

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, without any adjacent indicators, indicating that products have been manufactured to the requirements of Canadian Standards.

Markings shall include:

- Manufacturer's name, or CSA Master Contract No. 200600
- Model designation; As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- Temperature Codes T4, T5 & T6 with max ambient temperature of 85°C, 70°C & 55°C, respectively.
- Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
- Hazardous locations designations As specified 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".
- The CSA Mark, as shown on the Certificate of Conformity.
- Reference to Control Drawing or Installation Drawing as applicable;
- The symbol, "Exia" or "Intrinsically Safe", "Non-Incendive" or "Explosion Proof" as applicable;
- For Explosion Proof codes:
 - Thread size and type shall be permanently marked adjacent to the threaded entries.
 - "CAUTION – DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE IS PRESENT" and "ATTENTION – NE PAS OUVRIR EN PRÉSENCE D'UNE ATMOSPHERE EXPLOSIVE"
 - "CAUTION – "SEAL ENTRIES WITHIN 18 INCHES OF ENCLOSURE" and "ATTENTION – SCELLER LES ENTRÉES À MOINS DE 18 INCHES DE L'ENCEINTE"



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- For Non-Incendive codes :
 - “WARNING – EXPLOSION HAZARD. DO NOT REMOVE OR REPLACE WHILE CIRCUIT IS LIVE UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS”, and
“AVERTISSEMENT – RISQUE D’EXPLOSION. NE PAS RETIRER NI REMPLACER PENDANT QUE LE CIRCUIT EST SOUS TENSION À MOINS QUE L’EMPLACEMENT NE SOIT EXEMPT DE CONCENTRATIONS INFLAMMABLES”

Nameplate adhesive label material approval information:

Certified adhesive label 3M, type 7384, polyester silver polished with thermo transfer or laser etched on enclosure.

Markings per CAN/CSA-C22.2 No. 61010-1:

- Manufacturer’s name
- Model designation
- Electrical ratings
- Date of manufacture
- Temperature rating
- The CSA Mark

Notes:

Products certified under Class C225205, C225802, C225803, C225804 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
80121984	2023-02-08	Update to report 1893497 (last update 70190306) to remove models TMT82, TMT82 DINrail from report and certificate. Update to CAN/CSA C22.2 No. 30:20 and CAN/CSA C22.2 No. 61010-1-12 + UPD1:2015, UPD2:2016, AMD 1-18. Add CSA C22.2 No. 25-1966(R2014) and CAN/CSA 94.2-20 to applicable requirements. Remove Can/CSA C22.2 No. 0 from applicable requirements. Update class 2252 05 to 2252 06. Clarification of model numbers for products listed under classes 2258 02, 2258 03, and 2258 04. There were no constructional changes made to the models listed in this assessment.
70190306	2019-02-18	Variation to the CofC1893497 - Adding an alternative potting compound type QSi1553LV CSA CAN only CSA Class Number (Canada) 2258 02, 2258-03,2258-04 Standards marking 1: Class I, Div. 1, Groups A, B, C & D; Class II, Div. 1 Groups E, F & G; Class III: Standards marking 2: Class I, Division 2, Groups A, B, C and D Ambient Temperature: -40°C> +85°C>
2572467	2013-01-07	Update to include TMT82 DINrail Transmitter.
2462545	2012-01-16	Update to Report to include Ordinary Locations certification of Models TMT 82/84/85 with UL Test Report provided.
2484266	2012-01-06	Update to include certified TA30H explosion - proof enclosure.
2397521	2011-03-24	Update to include Model TMT82 for Exia / Class I, Groups A, B, C and D hazardous classifications with FM Report provided.
1990675	2008-07-16	Intrinsically Safe Display Module TID10 for Class I, Groups A, B, C & D
1893497	2007-12-12	I.S./N.I. Head Transmitter