



Certificate of Compliance

Certificate: 80107108

Master Contract: 302565

Project: 80128768

Date Issued: 2022-06-07

Issued To: Endress+Hauser Yamanashi Co., Ltd
862-1 Mitsukunugi
Sakaigawa-cho
Fuefuki city, Yamanashi, 406-0846
Japan

Attention: Yuuki MUTO

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: Sorin Tat
Sorin Tat



PRODUCTS

CLASS - C225804 - PROCESS CONTROL EQUIPMENT Intrinsically Safe, Entity - For Hazardous Locations

CLASS - C225884 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations - Certified to US Standards

Class I, Division 1, Groups A, B, C, and D; T4/T6

Ex ia IIC T4/T6 Ga/Gb

Class I, Zone 0 AEx ia IIC T4/T6 Ga/Gb

-Temperature sensor, Series Prothermo NMT81-CB followed by suffixes (as per Product Ordering Code from document 961005934_A) contains Average Temperature Probe and Converter. Input ratings U=30V, I=4mA with entity parameters: U_i (Vmax) = 30V, I_i (Imax) = 300 mA, P_i = 1.0 W, C_i = 10 nF, L_i = 0 μ H. Enclosure Type 4. Intrinsically safe when connected in accordance with Installation Drawing No XA02755G-A00EN01.22 Control.



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Class I, Division 1, Groups C, and D; T4/T6

Ex ia IIB T4/T6 Ga/Gb

Class I, Zone 0 AEx ia IIB T4/T6 Ga/Gb

-Temperature and Bottom level measurement sensor, Series Prothermo NMT81-CJ with suffixes (as per Product Ordering Code from document 961005934_A) contains Average Temperature probe and Water Bottom Sensor and Converter. Input ratings $U=30V$, $I=4mA$ with entity parameters: $U_i (V_{max}) = 30V$, $I_i (I_{max}) = 300 mA$, $P_i = 1.0 W$, $C_i = 10 nF$, $L_i = 0 \mu H$. Enclosure Type 4. Intrinsically safe when connected in accordance with Installation Drawing No XA02755G-A00EN01.22 Control.

Class I, Division 1, Groups A, B, C, and D; T4/T6

Ex ia IIC T4/T6 Ga/Gb

Class I, Zone 0 AEx ia IIC T4/T6 Ga/Gb

-Converter, Series Prothermo NMT81-CH with suffixes (as per Product Ordering Code from document 961005934_A) contains Converter (only). Input ratings $U=30V$, $I=4mA$ with input entity parameters: $U_i (V_{max}) = 30V$, $I_i (I_{max}) = 300 mA$, $P_i = 1.0 W$, $C_i = 10 nF$, $L_i = 0 \mu H$ and output entity parameters $U_o (V_{oc}) = 7V$, $I_o (I_{sc}) = 68 mA$, $P_o = 0.25 W$, $Co(Ca) = 15.58 \mu F$ (for $Lo = 0$) and $Lo(La) = 5mH$ (for $Co=0$). Enclosure Type 4. Intrinsically safe when connected in accordance with Installation Drawing No XA02755G-A00EN01.22 Control.

Conditions of Acceptability:

-For ordinary locations to be supplied by a Class 2 or Limited Energy Source in accordance with CSA 61010-1-12/UL 61010-1.

-The apparatus is not capable of withstanding the 500V insulation test required by Clause 6.3.13 of IEC 60079-11:2012. This must be taken into account when installing the equipment.

- Potential electrostatic charging Hazard – see Safety Instructions.

-The following ambient temperatures and process temperatures shall be observed:

Temperature Class	Temperature Specification	Ambient Temperature (T_a)	Process Temperature(T_p) ¹⁾	
			Temperature Probe	Temperature Probe + Water Bottom Sensor
T6	Standard	-40 °C to +60 °C	-40 °C to +75 °C	-40 °C to +70 °C
	Low Temperature		-196 °C to +75 °C	-
T4*	Standard	-40 °C to +70 °C	-40 °C to +75 °C	-40 °C to +75 °C
	High Temperature		-55 °C to +235 °C	-
	Low Temperature		-196 °C to +100 °C	-



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1) Process temperature depending on the specification of the sensor if the convertor only is selected.

* Alternatively, the equipment may be used in Temperature Classes T3 or T2 with no changes to ambient or process temperatures indicated above.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 60079-0:19	-Explosive atmospheres — Part 0: Equipment — General requirements
CAN/CSA C22.2 No. 60079-11:14(R2018)	-Explosive atmospheres — Part 11: Equipment protection by intrinsic safety “i”
ANSI/UL 60079-0:20	-Explosives atmospheres –part 11: Equipment protection by intrinsic safety “i”
ANSI/UL 60079-11:18	-Explosives atmospheres –part 11: Equipment protection by intrinsic safety “i”
CAN/CSA 61010-1-12	-Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements - Third Edition
ANSI/UL 61010-1-2012	-Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements - Third Edition
CAN/CSA C22.2 No. 60079-26:16	-Explosives atmospheres –part 26: Equipment with Equipment Protection Level (EPL) Ga
ANSI/UL 60079-26:17	-Explosives atmospheres –part 26: Equipment with Equipment Protection Level (EPL) Ga

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.

There are two methods for marking:



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1. UL Approved adhesive nameplate with laser engrave, Top-Script 101720 black mat manufactured by Eltex and 3105 2002, black mat manufactured by CCL detailed can be refer to the drawing 960018037
2. Engrave to the housing directly if material of housing is stainless steel.

- CSA Monogram with “C-US” indicator
- Company name and/or Master Contract number
- Date code of manufacture and a serial number
- Hazardous locations designation : As specified in the PRODUCTS section, above.
- Method of Protection markings (Ex -- markings): As specified in the PRODUCTS section, above.
- Temperature code rating
- Ambient Temperature Range
- The certificate number “CSA22CA80107108X”
- The words “Intrinsically Safe” in English and in French
- Install per drawing XA02755G-A”
- The following warnings in English and French are mentioned in the Control drawing XA02755G-A.
 - Warning: Do not open when an explosive atmosphere is present
 - Warning: Potential electrostatic charging Hazard – see Instructions
 - Warning: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY

Notes:

Products certified under Class 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
80128768	2022-06-07	Update to Report 80107108 to make minor correction to the control drawing and nameplate drawing, model NMT81
80107108	2022-04-13	Original cCSAus Certification of model Prothermo NT181 Temperature Transmitter based on acceptance of the IECEx CML 20.0170X certification .