Certificate of Compliance

Certificate: 80147722 **Master Contract:** 229534

Project: 80147722 **Date Issued:** November 11, 2022

Issued To: **Pyromation Incorporated**
5211 Industrial Rd
Fort Wayne, Indiana 46825
United States

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: *Marua Gomes*
Maria Gomes

PRODUCTS
CLASS 2258 02 - Process Control equipment for Hazardous Locations
CLASS 2258 82 - Process Control equipment for Hazardous Locations - Certified for US Standards

Class I, Div. 1, Groups A, B, C & D; T6…T4
Class II, Div. 1 Groups E, F & G; Class III: T85°C … T135°C

4-20mA Temperature Transmitter, Type T142 with HART7, rated 11 - 36 Vdc max, 3W. Explosion proof or Dust Ignition proof when installed as per drawing H087001. Enclosure Type 4X, IP66/67. Seal conduits within 18".

Models Marking on transmitter enclosure: T142... (or T142...B w/Bluetooth) or the full form below, with the full form provided/included with on the enclosure or other order documentation: T142(b)-(c)-(d)(e)(f)-(g),(h)-(j)

Where:
b = Approval: "C" = C/US XP, DIP, I, II, III/1/A-G; "F" = C/US IS, NI I/1+2/A-D
c = "T" -Enclosure, aluminum - w/o display, explosion-proof, (3)x1/2NPT; "D" - Enclosure - aluminum w/ display.

explosion-proof (3)x1/2NPT
d = User configuration - does not affect safety (value 00, 1, 2, 3, 4)
e = Sensor Input Channel 1 - does not affect safety, {blank} when d="00"
f = Failure mode - does not affect safety, {blank} when d="00"
g = Temperature Range - does not affect safety, {blank} when d="00"
h = Temperature Unit of Measure - does not affect safety, {blank} when d="00"
j = Options - does not affect safety, {blank} or "O"=integrated overvoltage protection and/or "B"= Bluetooth
l = Temp. Range; Protect. Type: Not allowed

* mean value is not related to Explosion Safety

T-class	T142 with HART7 **Ambient temperature range**	
	Without display	**With** display
T4/T135°C	-40 °C ≤ Ta ≤ +85 °C	-40 °C ≤ Ta ≤ +70 °C
T5/T100°C	-40 °C ≤ Ta ≤ +70 °C	-40 °C ≤ Ta ≤ +70 °C
T6/T85°C	-40 °C ≤ Ta ≤ +55 °C	-40 °C ≤ Ta ≤ +55 °C

Conditions of Acceptability

1. Final acceptance of this equipment when installed is subject to the jurisdiction of the local inspection having authority.
2. The end user shall ensure appropriate earthing of the metallic field housing upon installation.
3. The equipment shall only be powered by limited energy circuits such as Class 2 SELV circuits.
4. All conduits must be assembled with a minimum of five full threads engagement
5. Seal all conduits within 18 inches of enclosures
6. For Class II i.e. Dust application, use dust tight seals.

CLASS 2258 04 - PROCESS CONTROL - Intrinsically Safe, Entity - For Hazardous Locations
CLASS 2258 84 - PROCESS CONTROL - Intrinsically Safe, Entity - For Hazardous Locations - Certified for US Standards

Ex ia IIC T6…T4 Ga
Class I, Zone 0, AEx ia IIC T6…T4 Ga
Ex/AEx ia IIC Ga and NI/NIFW
I.S. Class I, Division 1, Groups A, B, C, D; T6…T4
Class I, Division 2, Groups A,B,C,D; T6...T4 (I.S. Associated Equipment, NIFW for sensor connections)

Temperature Transmitter Type T142 with HART7, input rated 11 - 36V, 4 - 20mA; with entity parameters: Intrinsically Safe when connected according to Installation drawing H086901.

Marking on transmitter enclosure: T142... (or T142...B w/Bluetooth) or the full form below, with the full form provided/included with on the enclosure or other order documentation: T142(b)-(c)-(d)(e)(f)-(g),(h)-(j)

Where:
b = Approval: "C" = C/US XP, DIP, I, II, III/1/A-G; "F" = C/US IS, NI I/1+2/A-D
c = "T" -Enclosure, aluminum - w/o display, explosion-proof, (3)x1/2NPT; "D" - Enclosure - aluminum w/ display. explosion-proof (3)x1/2NPT
d = User configuration - does not affect safety (value 00, 1, 2, 3, 4)
e = Sensor Input Channel 1 - does not affect safety, {blank} when d="00"
f = Failure mode - does not affect safety, {blank} when d="00"
g = Temperature Range - does not affect safety, {blank} when d="00"
h= Temperature Unit of Measure - does not affect safety, {blank} when d="00"
i = Options - does not affect safety, {blank} or "O"=integrated overvoltage protection and/or "B"= Bluetooth

T-class	T142 with HART7 **Ambient temperature range**	
	Without display	**With** display
T4	-40 °C ≤ Ta ≤ +85 °C	-40 °C ≤ Ta ≤ +70 °C
T5	-40 °C ≤ Ta ≤ +70 °C	-40 °C ≤ Ta ≤ +70 °C
T6	-40 °C ≤ Ta ≤ +55 °C	-40 °C ≤ Ta ≤ +55 °C

Entity parameters

Terminals	Entity Parameters		
Supply terminals + and -	Ui / V_{max} = 30 V Ii / I_{max} = 300 mA Pi = 1000 mW Li = negligibly small Ci = 5 nF		
Sensors (Terminals 1 to 4)	U_O / V_{OC} = 4.3 V I_O / I_{SC} = 20.5 mA P_O = 22mW Maximum permissible external inductance (Lo) and capacitance (Co) for single appearance		
	Gas Groups	**Lo**	**Co**
	Group IIC / Group A & B	80 mH	1 µF
	Group IIB / Group C	300 mH	10 µF
	Group IIA / Group D	600 mH	10 µF

Conditions of Acceptability

1. Final acceptance of this equipment when installed is subject to the jurisdiction of the local inspection having authority.

2. The end user shall ensure appropriate earthing of the metallic field housing upon installation.
3. The hand held programming device shall be used only in non-hazardous area.
4. When the enclosure of the Temperature Transmitter Type T142 is made of aluminum, if it is mounted in an area where the use of EPL Ga apparatus is required, it must be installed such, that, even in the event of rare incidents, ignition sources due to impact and friction sparks are excluded.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10	General Requirements – Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 61010-1-12 UL Std. No. 61010-1 (3rd Edition)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements - Second Edition
CAN/CSA-C22.2 No. 60079-0:19 UL 60079-0:2019	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:14 UL 60079-11(6th Edition 2013)	Explosive Atmospheres – Part 11: Equipment protection by intrinsic safety "i"
CAN/CSA-C22.2 No. 60079-7:16 ANSI/UL 60079-7:2017	Explosive atmospheres — Part 7: Equipment protection by increased safety “e”
CAN/CSA C22.2 No. 213-17 UL-121201-2017 9th Edition	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
CSA Std. C22.2 No. 25- 1966(R2009)	Enclosures for Use in Class II, Groups E, F and G – Hazardous Locations
CSA Std. C22.2 No. 30-M1986(R2007)	Explosion-Proof Enclosures for Use in Class I, Hazardous Locations
CSA Std. C22.2 No. 94.2-07	Enclosures for Electrical Equipment, Environmental Considerations
FM 3600:2018	Approval Standard for Electrical Equipment for Use in Hazardous (Classified) Locations - General Requirements
FM 3615:2018	Approval Standard for Explosionproof Electrical Equipment General Requirements
FM 3616:2011	Approval Standard for Dust-Ignitionproof Electrical Equipment General Re-quirements
UL 50E: 2007 (First Edition)	Enclosures for Electrical Equipment, Environmental Considerations

MARKINGS

The following information appear on the nameplate:
- Submittor's name - "Pyromation" or "Pyromation Inc.", trademark or CSA file number adjacent to the CSA mark:
- Model designation;
- Date of manufacturer or serial number;
- Electrical ratings;
- Hazardous Location designations;
- Temperature Code ratings;
- Install drawing

For Models in Class 2258 02 and 2258 82:
- The statements, plus equivalent French language:
  - DO NOT REMOVE COVER WHEN CIRCUITS ARE ALIVE
  - SEAL ALL CONDUITS WITHIN 18 INCH

For Models in Class 2258 04 and 2258 84 (I.S.):
- The words "Intrinsically Safe" or "IS" or "I.S." or the symbol "Ex ia" or "Associated I.S connections"
- The CSA Certificate number: 22 xxxxxx
- The statements, plus equivalent French language:
  - "Warning: Substitution of components may impair instrinsic safety";
  - "Warning: Do not disconnect unless power is switched off or the area is known to be non-hazardous"

Note: Optional additional marking may include the appropriate Class, Division, Group, and temperature class marking based on the permitted installation of that type of protection according to the CE Code, Part I.

METHOD OF MARKING SS 304 or AlMg1 (Mg <0.06%) plate, or anodized aluminum, with laser printing. Or approved adhesive label material.