



# Certificate of Compliance

**Certificate:** 80144694

**Master Contract:** 229534

**Project:** 80144694

**Date Issued:** October 18, 2022

**Issued to:** Pyromation Incorporated  
5211 Industrial Rd.,  
Fort Wayne, Indiana 46825  
USA

*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:** *Faith A. Caprio*  
Faith A. Caprio

## PRODUCTS

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

**Ex ec IIC Gc**  
**Class I, Zone 2, AEx ec IIC Gc**  
**Class I, Division 2, Groups A, B, C, D;**

- **COMPONENT:** Pyromation Temperature Transmitter Head. Model T31. Rated 10...36 Vdc, 23 mA. Suitable for Division 2 or Zone 2 when installed per control drawing H086801.

Models T31... (or T31...P with push-terminals) with the following full form provided/included with order documentations: T31(b)-(c)(d)-(e)-S(f)(g)(h)

Where:

(note: c, d, e, f, g, h, i, j do not affect safety, can be configured by the user, and are provided on supplied documentation)



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T31(b)-(c)(d)-(e)-(f)(g)(h)

b = specific approval option {blank}

c = sensor connection, customer specified, "00" is default for customer programming - does not affect safety

d = sensor type, customer specified, does not affect safety

e = fault detection (D or U), customer specified, does not affect safety

f = range e.g. (0-100), customer specified, does not affect safety

g = unit of measure (C, F, K), customer specified, does not affect safety

h = options (P=push terminals), does not affect safety

### **Schedule of Limitations:**

1. Due to the risk of discharge, the non-metallic parts of the equipment and of all non-metallic accessories have to be protected from electrostatic charging during installation and operation (e.g. only wipe with a damp cloth and do not expose to high voltage fields).
2. The device may only be powered by a power supply unit with a limited energy electric circuit in accordance with CSA/UL/EN/IEC 61010-1:2010 chapter 6.3.1/6.3.2 and 9.4 or Class 2 according to CSA 223/UL 1310
3. For use in the type of protection increased safety Ex ec, and for Zone 2 (EPL Gc), and Class I, Division 2 applications, the transmitter T31 shall be installed completely inside an additional enclosure, providing a degree of protection of not less than IP54 according to CSA/UL 60079-0 and CSA/UL 60079-7. The ambient temperature within the end use enclosure shall not exceed the limits of the permissible ambient temperature range. Clearances, creepage distances, and separations as defined in CSA/UL 60079-7 must be considered for the installation.
4. If the head transmitter T31, in type of protection increased safe and for use in Zone 2 (EPL Gc) and Class I, Division 2 applications, is mounted in an optional field housing the field housing must be equipped with suitable cable glands, certified according to CSA/UL 60079-0 and CSA/UL 60079-7, providing a degree of ingress protection of not less than IP54.
5. This component has not been evaluated for process pressure and process temperature, or any other source of heating or cooling.
6. Wire end ferrules must be used with spring terminals and when using flexible cables with a cable cross section of  $\leq 0.3 \text{ mm}^2$
7. The end user shall ensure appropriate earthing of any metallic field housing (optional) and any metallic accessories if used.
8. The maximum temperature rise recorded was  $+42^\circ\text{K}$ . These components do not have any surface that achieves a temperature greater than  $135^\circ\text{C}/100^\circ\text{C}/85^\circ\text{C}$  with a 5K safety factor when operated under full load conditions at an ambient of range of  $85^\circ\text{C}/50^\circ\text{C}/35^\circ\text{C}$  respectively.

T31 Ambient temperature range	TCode guidance
$-40^\circ\text{C} \leq T_a \leq +85^\circ\text{C}$	135°C
$-40^\circ\text{C} \leq T_a \leq +50^\circ\text{C}$	100°C
$-40^\circ\text{C} \leq T_a \leq +35^\circ\text{C}$	85°C

9. The factory programming 4-pins, covered pins, (CDI-Connection) are not used during normal operations.



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### **APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 61010-1-12	-	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
ANSI/UL 61010-1 (3rd Edition)	-	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
ANSI/UL 121201-2021 Ninth Edition	-	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
CAN/CSA C22.2 NO. 213-17 (R2021)	-	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
CAN/CSA-C22.2 No. 60079-0:19	-	Explosive atmospheres - Part 0: Equipment - General Requirements
CAN/CSA-C22.2 No. 60079-7:16	-	Explosive atmospheres - Part 7: Equipment protection by increased safety “e”
ANSI/UL 60079-0:2019	-	Explosive atmospheres - Part 0: Equipment - General Requirements
ANSI/UL 60079-7:2017 (R2021)	-	Explosive atmospheres - Part 7: Equipment protection by increased safety “e”

### **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.

The following are minimum marking to be found on the component:

- Manufacturer’s name: “Pyromation Inc.” or “Pyromation”, or CSA Master Contract Number
- “229534”, adjacent to the CSA Mark in lieu of manufacturer’s name.
- The CSA Mark, with or without the “C” and “US” indicators, as shown on the Certificate of Compliance
- Model Designation, as specified in the PRODUCTS section, above.
- Electrical Ratings, as specified in the PRODUCTS section, above.
- Ambient temperature range, as specified in the PRODUCTS section, above...
- Serial Number, Date Code or Month and Year of Manufacture.

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- Hazardous Location designation: 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”.
- Method of Protection markings (Ex -- markings): As specified in the PRODUCTS section, above.
- Temperature code: As specified in the PRODUCTS section, above.
- Certificate Number: CSA22CA80144694
- Install per control drawing H086801
- Temperature code: As specified in the PRODUCTS section, above, or alternate forms (e.g.): "T6: -40 °C ≤ Ta ≤ +35C, etc; may be marked "Ta: -40 to +35/50/85°C T6/T5/T4" or "T6: -40 to +35°C", etc.. Where required by technology or readability: "≤" is same as "<=" and "≥" is the same as ">=".

**Method of Marking:**

Laser etched onto enclosure; or

The material of the label type TOP-SCRIPT 101 720 (manufacturer Eltex) and the label type 3105 2008 (Manufacturer WOELCO) is accepted in the CSA Letter of Attestation 2089254.

**Note:**

According to CSA C22.2 No. 60079-0:19, 29.1A 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.

**Notes:**

Products certified under Class C225802, C225882 have been certified under CSA’s ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)

