

Hazardous (Classified) Location  
Class I / Division 2 / Groups ABCD  
Class I, Zone 2 (EPL Gc), IIC

Nonhazardous Location



**INCREASED SAFETY**

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



- Intrinsic safety barrier is not required.  $V_{max} \leq 36$  Vdc
- **WARNING: EXPLOSION HAZARD - DO NOT CONNECT OR DISCONNECT WHILE CIRCUITS ARE LIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS.**
- **AVERTISSEMENT: RISQUE D'EXPLOSION - NE PAS CONNECTER OU DÉCONNECTER LORSQUE LES CIRCUITS SONT SOUS TENSION À MOINS QUE LA ZONE NE SOIT CONNUE ÊTRE NON DANGEREUX.**
- **WARNING: POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS.**
- **AVERTISSEMENT: RISQUE POTENTIEL DE DÉCHARGES ELECTROSTATIQUES – VOIR CONSIGNES.**

**Functional ratings**

These ratings do not supersede Hazardous Location values  
 $U_{nom} \leq 36$  DC  $I_{nom} \leq 4$  to 20 mA

**Schedule of Limitations:**

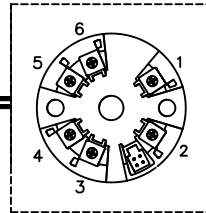
- Due to the risk of discharge, the non-metallic parts of the equipment and of all non-metallic accessories have to be protected from electrostatic charging during installation and operation (e.g. only wipe with a damp cloth and do not expose to high voltage fields).
- The device may only be powered 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
- 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.
- 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, 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.
- This component has not been evaluated for process pressure and process temperature, or any other source of heating or cooling.
- Wire end ferrules must be used with spring terminals and when using flexible cables with a cable cross section of = 0.3 mm<sup>2</sup>
- The end user shall ensure appropriate earthing of any metallic field housing (optional) and any metallic accessories if used.
- The maximum temperature rise recorded was +42°K. These components do not have any surface that achieves a temperature greater than 135°C/100°C/85°C with a 5K safety factor when operated under full load conditions at an ambient of range of 85°C/50°C/35°C respectively, see table "Ambient Temperature and TCode Guidance".
- The factory programming 4-pins covered terminal (CDI - Connection) are not used during normal operations

Applicable requirements see CSA certificate 80144694

**Installation Notes T31**

- CSA approved apparatus must be installed in accordance with manufacturer's instructions.
- Install per Canadian Electrical Code or National Electrical Code (NFPA 70).
- Use supply wires suitable for 5°C above surroundings.

e.g. RTD or TC Sensor (Simple Apparatus) integral or remote mounted



Any apparatus with supply voltage: max. 36 Vdc



T31 Ambient Temperature	TCode Guidance
-40°C to +85°C	135°C
-40°C to +50°C	100°C
-40°C to +35°C	85°C

Terminal Specifications	Torque	Cable version	Cable cross-section
Screw terminals cable version, stripping length = min. 7 mm (0.39 in)	0.4 Nm	Solid or flexible	0.2 to 1.5 mm <sup>2</sup> (24 to 16 AWG)
Push-in terminals cable version, stripping length = min. 10 mm (0.39 in)	—	Solid or flexible	0.2 to 1.5 mm <sup>2</sup> (24 to 16 AWG)
	—	Flexible with wire end ferrules with/without plastic ferrule	0.25 to 1.5 mm <sup>2</sup> (24 to 16 AWG)

<b>TITLE:</b> INSTALLATION INSTRUCTION CSA, INCREASED SAFETY, T31	<b>PART NUMBER:</b>	<b>REVISION DATE:</b> 09/12/2022	 beyond measure FORT WAYNE, INDIANA 260-484-2580
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