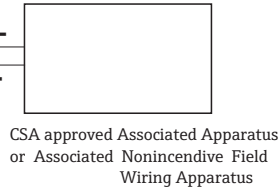


Hazardous (Classified) Location  
Class I / Division 1, 2 / Groups ABCD  
Class I, Zone 1 (EPL Gb), IIC

Nonhazardous Locations



CSA approved Associated Apparatus  
or Associated Nonincendive Field  
Wiring Apparatus

e.g. RTD or TC Sensor  
(Simple Apparatus)  
remote mounted  
option 2 channels

### Temperature range

- T4 -40°C ... +85°C
- T5 -40°C ... +61°C
- T6 -40°C ... +46°C

### Sensor circuits (Terminals 3...7)

$U_o$  or  $V_o$  or  $V_t = 9.0 V$        $I_o$  or  $I_s = 13 mA$        $P_o = 29.3 mW$

Combined values:

- Group A, B resp. IIC       $C_o$  or  $C_a = 0.93 \mu F$        $L_o$  or  $L_a = 5 mH$
- Group C, D resp. IIB       $C_o$  or  $C_a = 3.8 \mu F$        $L_o$  or  $L_a = 20 mH$
- Group C, D resp. IIA       $C_o$  or  $C_a = 4.8 \mu F$        $L_o$  or  $L_a = 50 mH$

Applicable requirements see CSA certificate **80153053**

### Installation Notes TMT82

- CSA approved apparatus must be installed in accordance with manufacturer's instructions.
- Use supply wires suitable for 5°C above surroundings.
- Stating that only simple apparatus should be terminated to the sensor connection.  
Simple apparatus is defined as a device that will neither generate nor store more than 1.2V, 0.1A, 0.25mW or 20µJ. Examples are Thermocouples or RTDs.
- **WARNING: POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS.**  
**AVERTISSEMENT: RISQUE POTENTIEL DE DÉCHARGES ELECTROSTATIQUES – VOIR CONSIGNES.**

### INTRINSICALLY SAFE

**Class I / Div. 1 / Groups ABCD Ex ib [ia Ga] IIC**



- Installation should be in accordance with the Canadian Electrical Code (CEC).
- CSA Approved Associated Apparatus must meet the following parameters:  
Transmitter entity parameters are as follows:  
 $U_i$  or  $V_{max} \leq 30 V DC$        $C_i = 3.5 nF$   
 $I_i$  or  $I_{max} \leq 130 mA$        $L_i = 0$   
 $P_i \leq 770 mW$
- $V_{oc} + V_{oc}$  of Handheld device <  $V_{max}$ ,  $I_{sc} + I_{sc}$  of Handheld device <  $I_{max}$ ,  
 $P_o + P_o$  of Handheld device <  $P_i$ ,  $C_a > C_i + C_{cable} + C_i$  of Handheld device,  
 $L_a > L_i + L_{cable} + L_i$  of Handheld device, when Programming Handheld device is used.
- **WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY.**  
**AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINÈQUE**

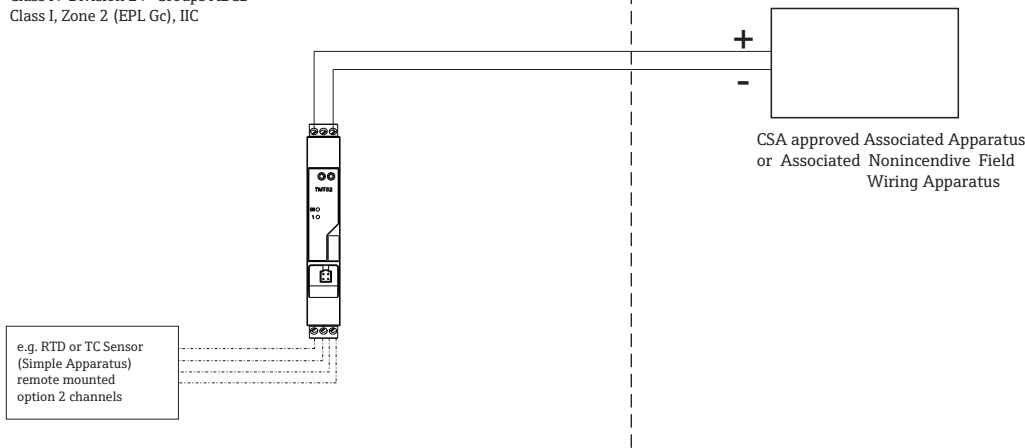
### CONDITIONS OF ACCEPTABILITY

- 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 equipment is for use under atmospheric conditions only, the permissible pressure range is 0.1 to 1.1 bar (80 to 110 kPa) and the permissible normal oxygen content is typically 21 % v/v.
- These models are provided without enclosure. They shall be installed within a suitable end-use enclosure, providing a degree of protection of not less than IP20 according to CSA 60079-0 and CSA 60079-11. 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 60079-11 must be considered for the installation. The final combination shall be subjected to acceptance of the local authority having jurisdiction.
- In hazardous area it is not permitted to use the CDI interface for configuration.
- Only simple apparatus shall be connected to the sensor terminals. Simple apparatus is defined as a device that neither generates or stores more than 1.2V, 0.1A, 0.25 mW, or 20 uJ. Examples are thermocouples and RTDs.

	Approved Pfanzelt	Date (yyyy-mm-dd) 2012-06-04	Drawing No. 10000004193	Dwg.rev. A	Revision no. -	Revision date (yyyy-mm-dd) 2024-01-17	Name MP	Material 71649102 XA01033T/09/EN/02.24-00	Endress+Hauser
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2012-06-01	Unit ITEMP TMT82	Scale 1:1	Title CONTROL DRAWING CSA XA01033T		Series		
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No. -	Format A4			Objekt version	Sheet 1 of 2	Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany

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

Nonhazardous Locations



**Temperature range**

- T4 -40°C ... +85°C
- T5 -40°C ... +61°C
- T6 -40°C ... +46°C

**NONINCENDIVE, FIELD WIRING Class I / Div. 2 / Groups ABCD**

Sensor circuits (Terminals 3...7)

$U_o$  or  $V_{oc}$  or  $V_t = 9.0 V$      $I_o$  or  $I_{sc} = 13 mA$      $P_o = 29.3 mW$

Combined values:

- |                      |                             |                        |
|----------------------|-----------------------------|------------------------|
| Group A, B resp. IIC | $C_o$ or $C_a = 0.93 \mu F$ | $L_o$ or $L_a = 5 mH$  |
| Group C, D resp. IIB | $C_o$ or $C_a = 3.8 \mu F$  | $L_o$ or $L_a = 20 mH$ |
| Group C, D resp. IIA | $C_o$ or $C_a = 4.8 \mu F$  | $L_o$ or $L_a = 50 mH$ |

**NONINCENDIVE**

**Class I / Div. 2 / Groups ABCD Ex ic IIC**



- Installation should be in accordance with the Canadian Electrical Code (CEC).
- Intrinsic safety barrier is required.  $V_{max} \leq 35 V DC$ .
- **WARNING: EXPLOSION HAZARD - DO NOT CONNECT OR DISCONNECT WHILE CIRCUITS ARE LIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS.**

**AVERTISSEMENT: RISQUE EXPLOSIF- NE JAMAIS BRANCHEZ OU DECONNECTEZ QUAND LES CIRCUITS INTERNES SONT SOUS TENSION Á MOINS QUE LA ZONE SOIT PAS Á RISQUES.**

- Nonincendive field wiring installation  
The Nonincendive Field Wiring Circuit Concept allows interconnection of Nonincendive Field Wiring Apparatus with Associated Nonincendive Field Wiring Apparatus or Associated Intrinsically Safe Apparatus or Associated Apparatus not specifically examined in combination as a system using any of the wiring methods permitted for unclassified locations, when  $V_{oc} \leq V_{max}$ ,  $C_a \geq C_i + C_{cable}$ ,  $L_a \geq L_i + L_{cable}$ .

Transmitter Nonincendive Field Wiring parameters are as follows:

$U_i$  or  $V_{max} \leq 35 V DC$      $C_i = 0$      $L_i = 0$

$I_i$  or  $I_{max}$  = see following note below

For these current controlled circuits, the parameter  $I_{max}$  is not required and need not to be aligned with parameter  $I_{sc}$  and  $I_t$  of the Associated Nonincendive Field Wiring Apparatus or Associated Apparatus.

**Functional ratings**

These ratings do not supersede Hazardous Location values

$U_{nom} \leq 42 DC$      $I_{nom} \leq 4$  to 20 mA

	Approved Pfanzelt	Date (yyyy-mm-dd) 2012-06-04	Drawing No. 10000004193	Dwg.rev. A	Revision no. -	Revision date (yyyy-mm-dd) 2024-01-17	Name MP	Material 71649102 XA01033T/09/EN/02.24-00	Endress+Hauser
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2012-06-01	Unit ITEMP TMT82	Scale 1:1	Title CONTROL DRAWING CSA XA01033T		Series		
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No. -	Format A4			Objekt version	Sheet 2 of 2	Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany