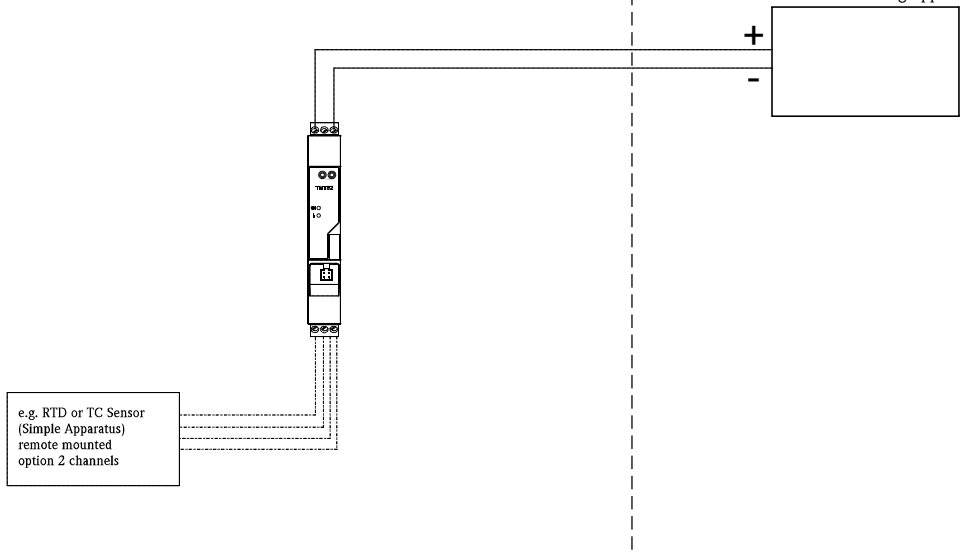


Hazardous (Classified) Location  
Class I / Division 1, 2 / Groups ABCD  
Class I, Zone 0, IIC

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 ... +56°C
- T6 -40°C ... +41°C

**INTRINSICALLY SAFE** IS Class I / Div. 1 / Groups ABCD  
**NONINCENDIVE, FIELD WIRING** NI Class I / Div. 2 / Groups ABCD

Sensor circuits (Terminals 3...7)

$U_o$ or $V_o$ or $V_t = 9.0 V$	$I_o$ or $I_{sc} = 13 mA$	$P_o = 29.3 mW$
Group A, B resp. IIC	$C_o$ or $C_a = 4.9 \mu F$	$L_o$ or $L_a = 236 mH$
Group C, D resp. IIB	$C_o$ or $C_a = 40 \mu F$	$L_o$ or $L_a = 946 mH$
Group C, D resp. IIA	$C_o$ or $C_a = 500 \mu F$	$L_o$ or $L_a = 1.893 H$

**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.

**INTRINSICALLY SAFE** Class I / Div. 1 / Groups ABCD Ex ia IIC

- Installation should be in accordance with the Canadian Electrical Code (CEC).
- CSA Approved Associated Apparatus must meet the following parameters:  
 $U_o \leq U_i$     $I_o \leq I_i$     $P_o \leq P_i$     $C_a \geq C_i + C_{cable}$     $L_a \geq L_i + L_{cable}$   
 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.

**NONINCENDIVE** Class I / Div. 2 / Groups ABCD Ex nA II

- Intrinsic safety barrier is not required.  $V_{max} \leq 35 V DC$ .
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be non hazardous.
- 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  $V_{max} \leq 35 V DC$     $C_i = 3.5 nF$     $L_i = 0$   
 $I_i$  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. -	Revision no. -	Revision date (yyyy-mm-dd) -	Name -	Material 71209552	Endress+Hauser
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2012-06-01	Unit iTEMP TMT82	Scale 1:1	Title CONTROL DRAWING CSA XA01033T/09/EN/01.12		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 1	Endress + Hauser Wetzler GmbH+Co. KG Nesselwang / Germany		