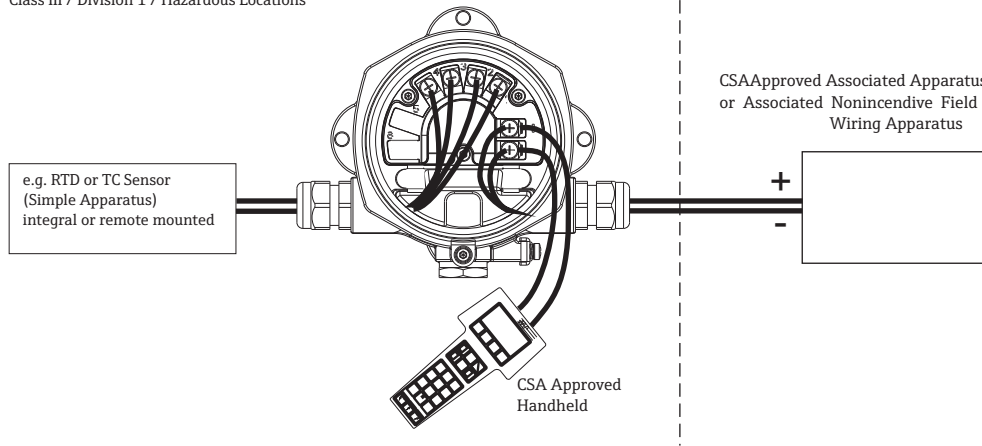


Hazardous (Classified) Location  
 Class I / Division 1 / Groups ABCD  
 Class I / Zone 0 / Ex ia IIC  
 Class I / Division 2 / Groups ABCD  
 Class II / Division 1 / Groups EFG  
 Class III / Division 1 / Hazardous Locations

Nonhazardous Locations



**Installation Notes TMT142**

- 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**

- 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    $C_i = 5.3$  nF  
 $I_i$  or  $I_{max} \leq 300$  mA    $L_i = 0$   
 $P_i \leq 1000$  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**

- Intrinsic safety barrier is not required.  $V_{max} \leq 40$  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  $V_{max} \leq 40$  V DC    $C_i = 5.3$  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

$U_{nom} \leq 40$  DC    $I_{nom} \leq 4$  to 20 mA

**Temperature range**

T4   -40°C ... +85°C  
 T5   -40°C ... +70°C  
 T6   -40°C ... +55°C

**INTRINSICALLY SAFE**

**IS Class I / Div. 1 / Groups ABCD**

**NONINCENDIVE, FIELD WIRING**

**NI Class I / Div. 2 / Groups ABCD**

**Sensor circuits (Terminals 1...4)**

$U_o$  or  $V_{oc}$  or  $V_t = 7.6$  V    $I_o$  or  $I_{sc} = 29.3$  mA    $P_o = 55.6$  mW

Group A, B resp. IIC    $C_o$  or  $C_a = 10.4$  µF    $L_o$  or  $L_a = 40$  mH

Group C resp. IIB    $C_o$  or  $C_a = 160$  µF    $L_o$  or  $L_a = 150$  mH

Group D resp. IIA    $C_o$  or  $C_a = 1000$  µF    $L_o$  or  $L_a = 300$  mH

Approved	Pfanzelt	Date (yyyy-mm-dd)	2005-05-31	Drawing No.	14 25 00 112	Dwg.rev.	-	Revision no.	-	Revision date (yyyy-mm-dd)	-	Name	-	Material	71540249 XA02329T/09/EN/01.20	Endress+Hauser
Volume (mm³)	Designed	Meroth	Date (yyyy-mm-dd)	2005-04-22	Unit	iTEMP TMT142	Scale	1:1	Title	CONTROL DRAWING CSA		Series				
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No.	-	Format	A4	Intrinsical safety, Nonincendive		Objekt version	Sheet	1 of 1	Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany				