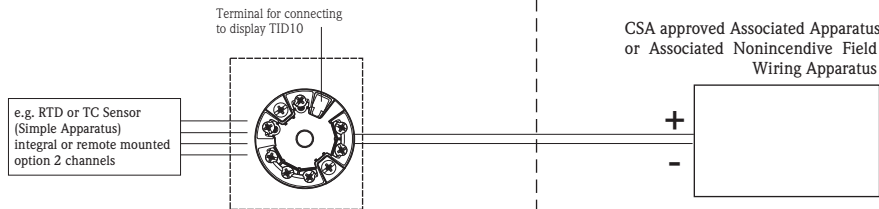


Hazardous (Classified) Location  
Class I / Division 1, 2 / Groups ABCD  
Class I, Zone 0, IIC



Nonhazardous Locations



### 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    $C_i = 0$   
 $I_i$  or  $I_{max} \leq 130$  mA    $L_i = 0$   
 $P_i \leq 800$  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.

### Temperature range

without display, TID10		with display, TID10	
T4	-50°C ... +85°C	T4	-30°C ... +85°C
T5	-50°C ... +75°C	T5	-30°C ... +70°C
T6	-50°C ... +58°C	T6	-30°C ... +55°C

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

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

$U_o$ or $V_{oc}$ or $V_t = 7.6$ V	$I_o$ or $I_{sc} = 13$ mA	$P_o = 24.7$ mW
Group A, B resp. IIC	$C_o$ or $C_a = 10.4$ µF	$L_o$ or $L_a = 236$ mH
Group C, D resp. IIB	$C_o$ or $C_a = 160$ µF	$L_o$ or $L_a = 946$ mH
Group C, D resp. IIA	$C_o$ or $C_a = 1000$ µF	$L_o$ or $L_a = 1.893$ H

### 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 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)	2010-06-16	Dwg.rev.	-	Revision no.	-	Revision date (yyyy-mm-dd)	-	Name	-	Material	71124594 ZD 088R/09/en/11.10	<b>Endress+Hauser</b>
Volume (mm³)	Designed	Date (yyyy-mm-dd)	2010-06-15	Unit	34 05 00 112			Scale	1:1	Title		Series	Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany	
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No.	iTEMP TMT82			Format	A4	CONTROL DRAWING CSA		IS, NI	Objekt version		
												1 of 1		