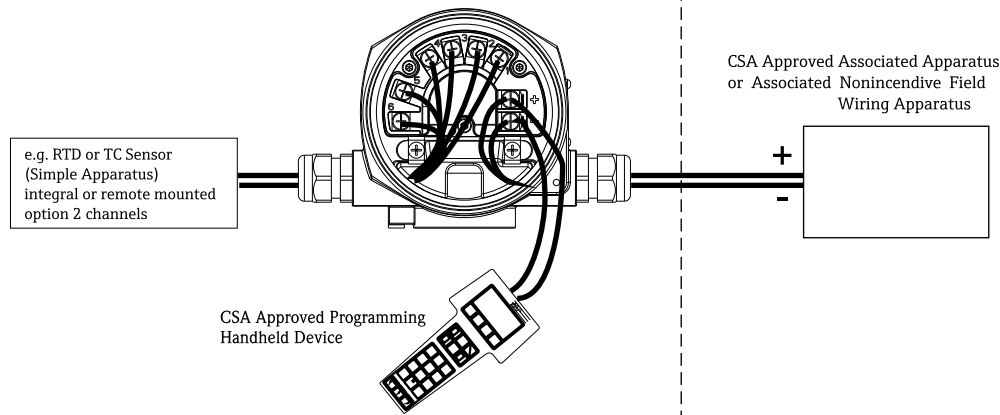


Hazardous (Classified) Location  
 Class I / Division 1 / Groups ABCD  
 Class I / Zone 0 / Ex ia IIC  
 Class I / Division 2 / Groups ABCD  
 Class II / Division 1 / Groups EFG  
 Class III / Division 1 / Hazardous Locations

Nonhazardous Locations



**Temperature range**

T4 -50°C ... +85°C  
 T5 -50°C ... +70°C  
 T6 -50°C ... +55°C

**INTRINSICALLY SAFE**

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

**NONINCENDIVE, FIELD WIRING**

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

Sensor circuits (Terminals 1...6)

$U_o$ 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 $C_a = 10.4 \mu F$	$L_o$ or $L_a = 40 mH$
Group C resp. IIB	$C_o$ or $C_a = 160 \mu F$	$L_o$ or $L_a = 150 mH$
Group D resp. IIA	$C_o$ or $C_a = 1000 \mu F$	$L_o$ or $L_a = 300 mH$

**Installation Notes TMT 162**

- 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:

$$U_o \leq U_i \quad I_o \leq I_i \quad P_o \leq P_i \quad C_a \geq C_i + C_{cable} \quad L_a \geq L_i + L_{cable}$$

Transmitter entity parameters are as follows:

$$U_i \text{ or } V_{max} \leq 30 V \text{ DC} \quad C_i = 5.3 nF$$

$$I_i \text{ or } I_{max} \leq 300 mA \quad L_i = 0$$

$$P_i \leq 1000 mW$$

- $V_{oc} + V_{oc}$  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.

**Avertissement :** La substitution de composants peut compromettre la sécurité intrinsèque.

**NONINCENDIVE**

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

- Intrinsic safety barrier is not required.  $V_{max} \leq 40 V \text{ DC}$ .
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.

**Avertissement :** Risque d'explosion - Ne pas débrancher tant que le circuit est sous tension, à moins qu'il s'agisse d'un emplacement non dangereux.

- 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:

$$U_i \text{ or } V_{max} \leq 40 V \text{ DC} \quad C_i = 5.3 nF \quad L_i = 0$$

$I_i$  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

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



	Approved Pfanzelt	Date (yyyy-mm-dd) 2017-02-20	Drawing No. 10000009437	Dwg.rev.	Revision no.	Revision date (yyyy-mm-dd)	Name	Material 71393609	Endress+Hauser
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2017-02-19	Unit TMT162	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	XA01712T/09/EN/01.17			Objekt version Sheet 1 of 1	
								Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany	