

Hazardous (Classified) Location  
Class I / Division 1, 2 / Groups ABCD  
Class II / Division 1, 2 / Groups EFG  
Class III

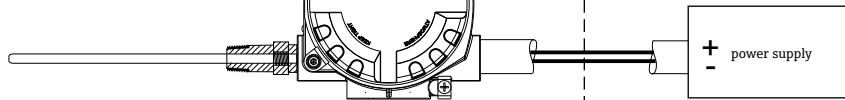
Nonhazardous Locations

Remote mount sensor configuration



CSA explosionproof approved temperature sensor assembly

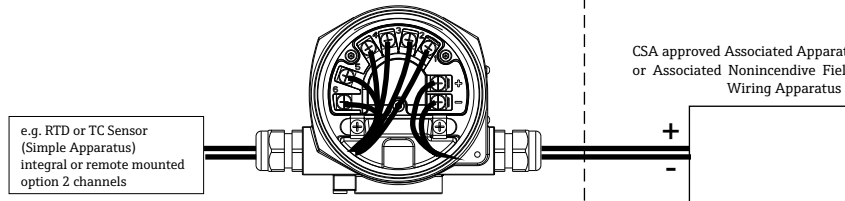
Direct mount sensor configuration:



CSA explosionproof approved temperature sensor assembly

Hazardous (Classified) Location  
Class I / Division 2 / Groups ABCD

Nonhazardous Locations



CSA approved Associated Apparatus  
or Associated Nonincendive Field  
Wiring Apparatus

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

### NONINCENDIVE, FIELD WIRING

Class I / Div. 2 / Groups ABCD

Sensor circuits (Terminals 1...6)

$U_o$ or $V_o$ 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 TMT162

#### EXPLOSION PROOF DUST IGNITION PROOF

Class I / Div. 1 / Groups ABCD  
Class II, III / Div. 1 / Groups EFG

- CSA certified apparatus must be installed in accordance with manufacturer's instructions.
- Installation must be in accordance with Canadian Electrical Code.
- All Conduits must be assembled with a minimum of five full threads engagement.
- Temperature Sensor assembly must be CSA approved for appropriate area classification.
- Stating that only simple apparatus should be terminated to the sensor connection.  
Simple apparatus are components as defined by the CEC (1.2V, 0.1A, 0.25mWor 20μj)
- Use supply wires suitable for 5°C above surroundings.
- Seal all conduits within 18 inches of enclosure.
- In Class II use a dust tight seal.
- A dust tight seal must be used for conduit entry when the field display is used in a Class II or Class III location.
- Keep tight when circuits alive.
- Supply circuit (Terminals + and -)  
 $U \leq 40 V DC$   
 $P = 3 W$

- Warning: Substitution of components may impair suitability for Class I, Division 2.  
**Avertissement :** La substitution de composants peut compromettre la sécurité intrinsèque
- 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

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.  
**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  $V_{oc} \leq V_{max}$ ,  $C_a = C_i + C_{cable}$ ,  $L_a = L_i + L_{cable}$ .  
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 20mA

#### Temperature range

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

	Approved Pfanzelt	Date (yyyy-mm-dd) 2003-04-03	Drawing No. 14 12 00 114	Dwg.rev. A	Revision no.	Revision date (yyyy-mm-dd) 2017-12-13	Name MP	Material 71540239 XA02340T/09/EN/01.20	Endress+Hauser
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2003-04-03	Unit TMT162	Scale 1:1	Title CONTROL DRAWING CSA EXPLOSION PROOF		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	