

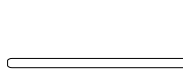
Hazardous (Classified) Location
Class I / Division 1, 2 / Groups ABCD
Class II / Division 1, 2 / Groups EFG
Class III

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



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



Nonhazardous Locations



Nonhazardous Locations

CSA approved Associated Apparatus
or Associated Nonincendive Field
Wiring Apparatus

NONINCENDIVE, FIELD WIRING

NI Class I / Div. 2 / Groups ABCD

Sensor circuits (Terminals 1...6)

U_o or V_o or $V_t = 7.6 \text{ V}$

I_o or $I_{sc} = 29.3 \text{ mA}$

$P_o = 55.6 \text{ mW}$

Group A, B resp. IIC

C_o or $C_a = 10.4 \mu\text{F}$

L_o or $L_a = 40 \text{ mH}$

Group C resp. IIB

C_o or $C_a = 160 \mu\text{F}$

L_o or $L_a = 150 \text{ mH}$

Group D resp. IIA

C_o or $C_a = 1000 \mu\text{F}$

L_o or $L_a = 300 \text{ mH}$

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.
- Use supply wires suitable for 5°C above surroundings.
- 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, 0.25mW or 20μJ)
- 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 -)
 $U \leq 40 \text{ V DC}$
 $P = 3 \text{ W}$

- 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. $V_{max} \leq 40 \text{ V DC}$.
- 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 $V_o \leq V_{max}$, $C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$.
Transmitter Nonincendive Field Wiring parameters are as follows:
 U_i or $V_{max} \leq 40 \text{ V DC}$ $C_i = 5.3 \text{ nF}$ $L_i = 0$
 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
 $U_{nom} \leq 40 \text{ DC}$ $I_{nom} \leq 4 \text{ to } 20 \text{ mA}$

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 71393608	Endress+Hauser	
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2003-04-03	Unit TMT162	Scale 1:1	Title CONTROL DRAWING CSA XA01723T/09/EN/01.18			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. -	Format A4				Objekt version	Sheet 1 of 1	