

Hazardous (Classified) Location
Class I / Division 1 / Groups ABCD
Class I / Division 2 / Groups ABCD

Nonhazardous Locations

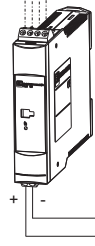
e.g. RTD or TC Sensor
(Simple Apparatus)
remote mounted

e.g. TMT121



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CSA approved Associated Apparatus
or Associated Nonincendive Field
Wiring Apparatus

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Temperature range

T4 -40°C ... +85°C
T5 -40°C ... +65°C
T6 -40°C ... +50°C

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

Sensor circuits (Terminals 3...6)

U_o or V_{oc} or $V_t = 4.4 V$ I_o or $I_{sc} = 2.2 mA$ $P_o = 2.4 mW$

Group A, B resp.	IIC	C_o or $C_a = 100 \mu F$	L_o or $L_a = 100 mH$
Group C resp.	IIB	C_o or $C_a = 1000 \mu F$	L_o or $L_a = 100 mH$
Group D resp.	IIA	C_o or $C_a = 1000 \mu F$	L_o or $L_a = 100 mH$

Installation Notes TMT121, TMT127, TMT128

- 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

Exia/ 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 $V_{max} \leq 30 V DC$ $C_i = 0$
 I_i or $I_{max} \leq 100 mA$ $L_i = 0$
 $P_i \leq 750 mW$

- The configuration of the transmitter TMT121 is only permitted in non-hazardous locations.

The voltage of the "tools" used for configuration should not exceed $U_m = 30 V$. This can be achieved e.g. by a battery powered laptop. An approved adapter with barrier (e.g. TMT181A) has to be used for configuration using a PC with mains connection ($U_m < 253V$).

- 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. $V_{max} \leq 35 V DC$.
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.
- Avertissement: La substitution de composants peut rendre ce matériel inacceptable pour les emplacements de Class I, Division 2.
- Transmitter provides nonincendive field wiring to the Thermocouple/RTD
- 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 $V_{max} \leq 30 V DC$ $C_i = 0$ $L_i = 0$
 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
 $U_{nom} \leq 35 V DC$ $I_{nom} \leq 4$ to 20 mA



	Approved Pfanzelt	Date (yyyy-mm-dd) 2001-12-04	Drawing No. 14 10 01 112A	Dwg.rev. B	Revision no. W15105	Revision date (yyyy-mm-dd) 2015-01-08	Name MP	Material 71540281 XA02297T/09/EN/01.20	Endress+Hauser
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2001-12-04	Unit iTEMP TMT121(7)(8)	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	Objekt version	Sheet 1 of 1	Endress + Hauser Wetzler GmbH+Co. KG Nesselwang / Germany		