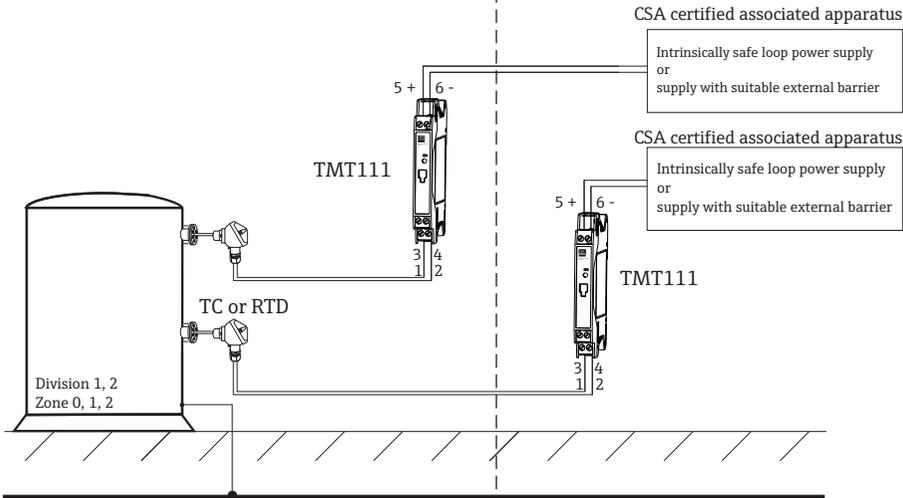


Hazardous (Classified) Location
 Class I / Division 1 / Groups ABCD
 Class I / Zone 0 / Ex ia IIC
 Class I / Division 2 / Groups ABCD

Nonhazardous Locations



Installation Notes TMT111



- CSA approved apparatus must be installed in accordance with manufacturer's instructions.
- Use supply wires suitable for 5°C above surroundings.
- Installation should be in accordance with the Canadian Electrical Code (CEC).
- The product will be installed in a suitable enclosure accepted by local authority having jurisdiction.
- The configuration of the transmitter TMT111 is only permitted in non-hazardous locations. The voltage of the "tools" used for configuration should not exceed $U_m = 30\text{ V}$. This can be achieved e.g. by a battery powered laptop. An approved adapter with barrier has to be used for configuration using a PC with mains connection ($U_m < 253\text{ V}$).
- 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.
- Warning: Substitution of components may impair intrinsic safety or suitability for Class I, Division 2.

INTRINSICALLY SAFE

Class I / Div. 1 / Groups ABCD

- 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 $V_{max} \leq 30\text{ V DC}$ $C_i = 0$
 I_i or $I_{max} \leq 100\text{ mA}$ $L_i = 0$
 $P_i \leq 750\text{ mW}$
- $V_{oc} + V_{oc}$ 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

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

INTRINSICALLY SAFE

Class I / Div. 1 / Groups ABCD
Class I / Zone 0 / Ex ia IIC / T4/T5/T6

NONINCENDIVE

Class I / Div. 2 / Groups ABCD

Sensor circuits (Terminals 1, 2, 3 and 4)

U_o or V_{oc} or $V_t = 4.4\text{ V}$ I_o or $I_{sc} = 9.6\text{ mA}$ $P_o = 10.2\text{ mW}$

Max. Connecting values

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

NONINCENDIVE

Class I / Div. 2 / Groups ABCD

- Intrinsic safety barrier is not required. $V_{max} \leq 35\text{ V DC}$.
- 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 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 $V_{max} \leq 30\text{ V DC}$ $C_i = 0$ $L_i = 0$
 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
 $U_{nom} \leq 35\text{ DC}$ $I_{nom} \leq 4$ to 20 mA

Approved	Meroth	Date (yyyy-mm-dd)	2004-01-26	Drawing No.	14 17 01 112	Dwg.rev.	A	Revision no.	-	Revision date (yyyy-mm-dd)	2008-11-19	Name	MP	Material	71540212 XA02336T/09/EN/01.20	Endress+Hauser
Designed	Meroth	Date (yyyy-mm-dd)	2004-01-26	Unit	iTEMP TMT111	Scale	1:1	Title	CONTROL DRAWING CSA		Series		Objekt version	Sheet	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	iTEMP TMT111		1 of 1							