

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

Nonhazardous Locations

Installation Notes TMT182



- FM Approved Apparatus must be installed in accordance with manufacturer's instructions.
- Use supply wires suitable for 5°C above surroundings.
- Only simple apparatus should be terminated to the sensor connection.
 Simple apparatus are components as defined by the NEC (1.2 V, 0.1 A, 0.25 mW or 20 µJ).
- Warning: Substitution of components may impair intrinsic safety or suitability for Class I, Division 2.

INTRINSICALLY SAFE IS Class I / Div. 1 / Groups ABCD

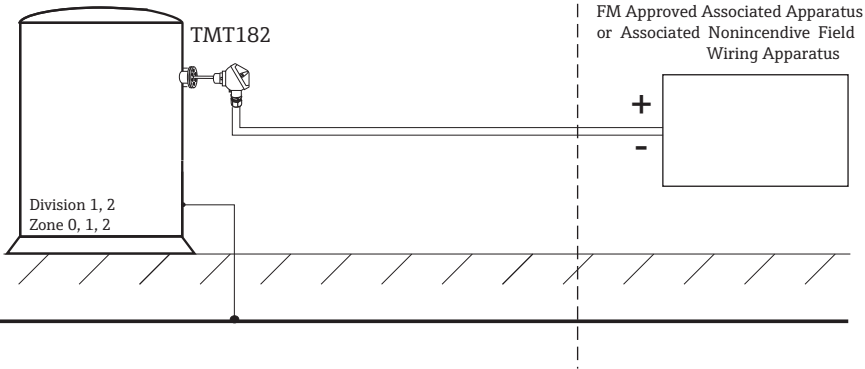
- Installation should be in accordance with ANSI/ISA RP 12.6.01 "Installation of Intrinsically safe systems for Hazardous (classified) locations" and the National Electrical Code (ANSI/NFPA 70).
- FM Approved Associated Apparatus must meet the following parameters:
 $U_o \leq U_i$ $I_o \leq I_i$ $P_o \leq P_i$ $C_a \geq C_i + C_{cable}$ $L_a \geq L_i + L_{cable}$
 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
- $V_{oc} + V_{oc}$ 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.

NONINCENDIVE NI Class I / Div. 2 / Groups ABCD

- Depending on location install per National Electrical Code (NEC) using wiring methods described in article 500 through article 510.
 Intrinsic safety barrier not required. $V_{max} \leq 30$ 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 $V_{max} \leq 30$ 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
 $U_{nom} \leq 30$ DC $I_{nom} \leq 4$ to 20 mA



Temperature range

- T4 -40°C ... +85°C
- T5 -40°C ... +70°C
- T6 -40°C ... +55°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 $V_t = 5.0$ V I_o or $I_{sc} = 3.6$ mA $P_o = 4.3$ mW
- Group A, B resp. IIC C_o or $C_a = 40$ µF L_o or $L_a = 100$ mH
- Group C, D resp. IIB, IIA C_o or $C_a = 1000$ µF L_o or $L_a = 100$ mH

Approved	Meroth	Date (yyyy-mm-dd)	2004-11-20	Drawing No.	14 06 00 131	Dwg.rev.	A	Revision no.	W07247	Revision date (yyyy-mm-dd)	2007-02-26	Name	MP	Material	71540243 XA02335T/09/EN/01.20	Endress+Hauser
Volume (mm³)	Designed	Meroth	Date (yyyy-mm-dd)	2004-11-20	Unit	iTEMP TMT182		Scale	1:1	Title		CONTROL DRAWING FM		Series		
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No.	-	Format	A4		TMT182-C/lxxxC/K/L Advanced Diagnostics		Objekt version	Sheet	1 of 1		Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany		