

Hazardous (Classified) Location
 Class I / Division 1, 2 / Groups ABCD
 Class I / Zone 1 / IIC T6/T5/T4
 Class II / Division 1, 2 / Groups EFG
 Class III

Nonhazardous Locations

Remote mount sensor configuration



FM explosionproof approved temperature sensor assembly

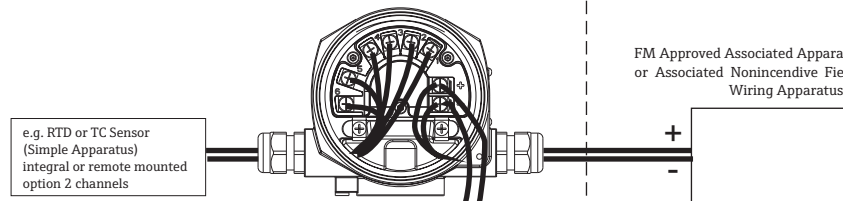
Direct mount sensor configuration:



FM explosionproof approved temperature sensor assembly

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

Nonhazardous Locations



FM Approved Associated Apparatus or Associated Nonincendive Field Wiring Apparatus

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

FM Approved Programming Handheld Device

NONINCENDIVE, FIELD WIRING NI Class I / Div. 2 / Groups ABCD

Sensor circuits (Terminals 1...6)

Uo or Voc or Vt = 7.6 V Io or Isc = 29.3 mA Po = 55.6 mW
 Group A, B resp. IIC Co or Ca = 10.4 µF Lo or La = 40 mH
 Group C, D resp. IIB, IIA Co or Ca = 160 µF Lo or La = 400 mH

Installation Notes TMT162



- 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.

EXPLOSION PROOF XP Class I / Div. 1 / Groups ABCD
DUST IGNITION PROOF DIP Class II,III / Div. 1 / Groups EFG

- Install per National Electrical Code (NFPA 70)
 - For Group A, seal all conduits within 18 inches of enclosure; otherwise, conduit seal not required for compliance with NEC 501.5(A)(1)(1).
 - All conduits must be assembled with a minimum of five full threads engagement.
 - Temperature sensor assembly must be FM approved for appropriate area classification.
 - Class II use a dust tight seal
 - Keep tight when circuits alive
- U ≤ 40 V DC P ≤ 3 W

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. Vmax ≤ 40 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 Voc ≤ Vmax, Ca ≥ Ci + Ccable, La ≥ Li + Lcable.
 Transmitter Nonincendive Field Wiring parameters are as follows:
 Ui or Vmax ≤ 40 V DC Ci = 5.3 nF Li = 0 Ii or Imax = see following note below
 For these current controlled circuits, the parameter Imax is not required and need not to be aligned with parameter Isc and It of the Associated Nonincendive Field Wiring Apparatus or Associated Apparatus.

Functional ratings

These ratings do not supersede Hazardous Location values
 Unom ≤ 40 DC Inom ≤ 4 to 20 mA

Temperature range

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

Approved	Pfanzelt	Date (yyyy-mm-dd)	2003-01-16	Drawing No.	14 12 00 113A	Dwg.rev.	C	Revision no.	T05204	Revision date (yyyy-mm-dd)	2005-02-11	Name	Meroth	Material	71540241 XA02338T/09/EN/01.20	Endress+Hauser
Volume (mm³)	Designed	Date (yyyy-mm-dd)	2003-01-16	Unit	iTEMP TMT162	Scale	1:1	Title	CONTROL DRAWING FM		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	XP, NI	Objekt version	Sheet	1 of 1						