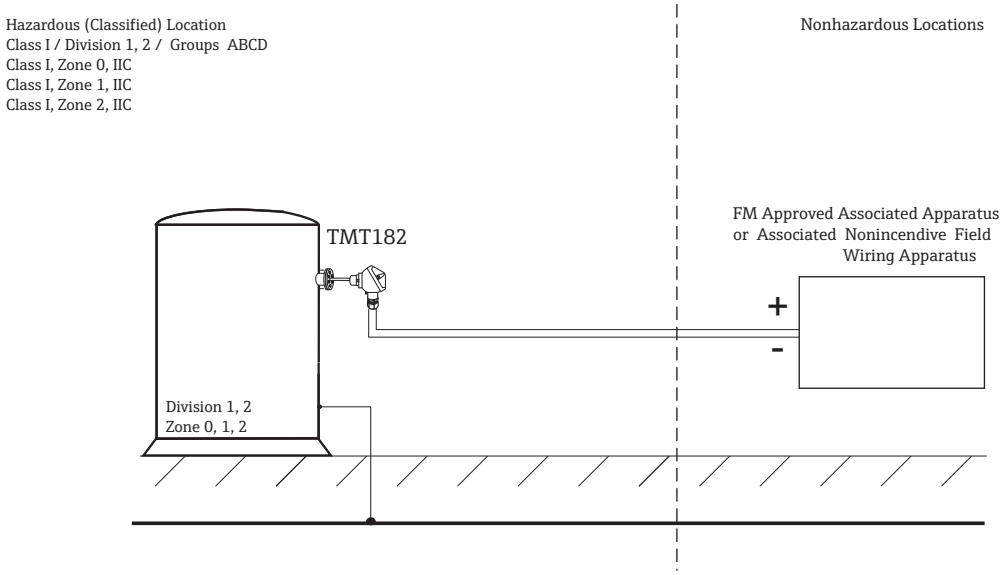

Temperature range

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)

Uo or Voc or Vt = 6.0 V Io or Isc = 2.5 mA Po = 3.75 mW

Group A, B resp. IIC Co or Ca = 40 µF Lo or La = 100 mH
Group C, D resp. IIB, IIA Co or Ca = 1000 µF Lo or La = 100 mH

Installation Notes TMT182

FM APPROVED

- 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:
  Uo ≤ Ui Io ≤ Ii Po ≤ Pi Ca ≥ Ci + Ccable La ≥ Li + Lcable
  Transmitter entity parameters are as follows:
  Ui or Vmax ≤ 30 V DC Ci = 0
  Ii or Imax ≤ 100 mA Li = 0
  Pi ≤ 750 mW
- Voc + Voc of Handheld device < Vmax, Isc + Isc of Handheld device < Imax,
  Po + Po of Handheld device < Pi, Ca > Ci + Ccable + Ci of Handheld device,
  La > Li + Lcable + Li 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. Vmax ≤ 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 Voc ≤ Vmax, Ca ≥ Ci + Ccable, La ≥ Li + Lcable.
  Transmitter Nonincendive Field Wiring parameters are as follows:
  Ui or Vmax ≤ 30 V DC Ci = 0 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 ≤ 30 DC Inom ≤ 4 to 20 mA

	Approved	Date (yyyy-mm-dd)	Drawing No.	Dwg.rev.	Revision no.	Revision date (yyyy-mm-dd)	Name	Material	
	Kellermann	2001-04-24	14 06 00 111	A	T04n04	2004-11-20	Meroth	71540234 XA02345T/09/EN/01.20	Endress+Hauser
Volume (mm³)	Designed	Date (yyyy-mm-dd)	Unit	Scale	Title			Series	
	Kellermann	2001-04-24	iTEMP TMT182	1:1	CONTROL DRAWING FM IS, NI			Objekt version / Sheet	
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No. -	Format A4				1 of 1	Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany