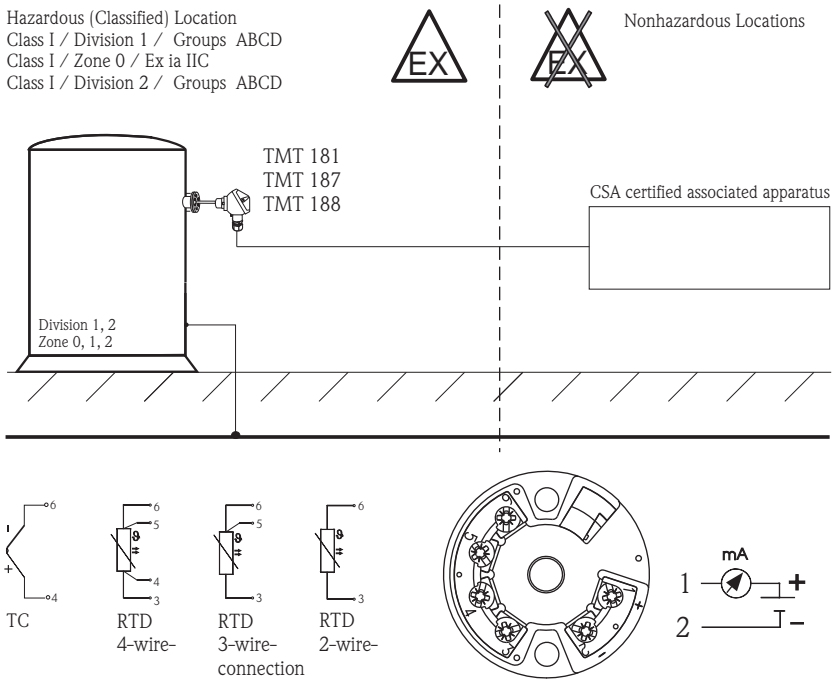

Temperature range

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

INTRINSICALLY SAFE — Class I / Div. 1 / Groups ABCD
Class I / Zone 0 / Ex ia IIC

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

Sensor output circuits (Terminals 3…6)

Uo or Voc or Vt = 8.2 V Io or Isc = 4.6 mA Po = 9.35 mW

Group A, B resp. IIC	Co or Ca = 974 nF	Lo or La = 4.5 mH
Group C, D resp. IIB, IIA	Co or Ca = 1900 nF	Lo or La = 8.5 mH

Installation Notes TMT181, TMT187, TMT188

- CSA certified Apparatus must be installed in accordance with manufacturer's instructions.
- The installation must be in accordance with the Canadian Electrical Code.
- Use supply wires suitable for 5°C above surroundings.
- Shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.
- The configuration of the transmitter TMT 181 is only permitted in nonhazardous locations.
- The voltage of the "tools" used for configuration should not exceed Um = 30 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 (Um < 253V).
- Terminals 3 to 6 provide Intrinsically Safe and Nonincendive circuits to RTD, Thermocouples and other passive resistive devices.
- Only simple apparatus should be terminated to the sensor connection.
  Simple apparatus are components as defined by the CEC (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 — Class I / Div. 1 / Groups ABCD

- CSA certified 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 W	

NONINCENDIVE — Class I / Div. 2 / Groups ABCD

- Intrinsic safety barrier not required. Vmax ≤ 35 V DC.
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be nonhazardous.
- 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 ≤ 35 DC Inom ≤ 4-20 mA

	Approved	Date (yyyy-mm-dd)	Drawing No.	Dwg.rev.	Revision no.	Revision date (yyyy-mm-dd)	Name	Material
	Pfanzelt	2001-09-01	14 05 00 112	B	M06401	2006-04-03	MP	51001931 ZD 010R/09/en/04.06
Volume (mm³)	Designed	Date (yyyy-mm-dd)	Unit	Scale	Title			
	Pfanzelt	2001-09-01	iTEMP TMT181(7)(8)	1:1	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

Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany