Hazardous (Classified) Location Nonhazardous Location Class I / Division 1, 2 / Groups ABCD Class II / Division 1, 2 / Groups EFG Class III Remote mount sensor configuration CSA explosionproof approved Direct mount sensor configuration temperature sensor assembly Hazardous (Classified) Location Nonhazardous Location Class I / Division 2 / Groups ABCD e.g. RTD or TC Sensor (Simple Apparatus) Temperature range T4 -40°C ... +85°C T5 -40°C ... +70°C T6 -40°C ... +55°C NONINCENDIVE, FIELD WIRING NI Class I / Div. 2 / Groups ABCD Sensor circuits (Terminals 1...4) Uo or Voc or Vt = 7.6 VIo or Isc = 29.3 mAPo = 55.6 mWCo or Ca =  $10.4 \mu F$ Group A, B resp. IIC Lo or La = 40 mHGroup C resp. IIB Co or Ca =  $160 \mu F$ Lo or La = 150 mHGroup D resp. IIA Co or Ca =  $1000 \mu F$ Lo or La = 300 mH

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#### Installation Notes TMT142

EXPLOSION PROOF

DUST IGNITION PROOF

# Class I / Div. 1 / Groups ABCD Class II, III / Div. 1 / Groups EFG

- CSA certified apparatus must be installed in accordance with manufacturer's instructions.

U

 $\triangleright$ 

В

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- Installation must be in accordance with Canadian Electrical Code.
- All Conduits must be assembled with a minimum of five full threads engagement.
- Temperature Sensor assembly must be CSA approved for appropriate area classification.
- Use supply wires suitable for 5°C above surroundings.
- Stating that only simple apparatus should be terminated to the sensor connection. Simple apparatus are components as defined by the CEC (1.2V, 0.1A, 0.25mW or 20μJ)
- Seal all conduits within 18 inches of enclosure.
- In Class II use a dust tight seal.
- A dust tight seal must be used for conduit entry when the field display is used in a Class II or Class III location.
- Keep tight when circuits alive.
- Supply circuit (Terminals + and -)

 $U \leq 40 \text{ V DC}$ 

P = 3 W

- Warning: Substitution of components may impair suitability for Class I, Division 2.
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be

non-hazardous.

### NONINCENDIVE

## Class I / Div. 2 / Groups ABCD

- Intrinsic safety barrier is 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  $Voc \le Vmax$ ,  $Ca \ge Ci + Ccable$ ,  $La \ge Li + Lcable$ .

Transmitter Nonincendive Field Wiring parameters are as follows:

Ui or Vmax  $\leq 40 \text{ V DC}$ 

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  $\leq 40 \, DC$  Inom  $\leq 4 \text{ to } 20 \, \text{mA}$ 

7		Approved	Date (yyyy-mm-dd)	Drawing No.	Dwg.rev.	Revision no.	Revision date (yyyy-mm-dd) Name	Material 7	'1540250	_	<u> —</u> Г
		Pfanzelt	2005-04-01	14 25 00 114						Endress+Hauser	
	Volume (mm³)	Designed	Date (yyyy-mm-dd)	Unit	Scale	Title					
		Meroth	2005-03-29	iTEMP TMT142	1:1	CONTROL DRAWING CSA		Serie	S		
	Refer to protection notice	Edge of working parts	Geometrical tolerancing	Part No.	Format	XP, NI, D	IP .	Objekt version	Sheet	Endress + Hauser Wetz	zer
	ISO 16016	ISO 13715	ISO 2768-mH-E	-	A4	, , , , , ,				GmbH+Co. KG Nesselwang / German	

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