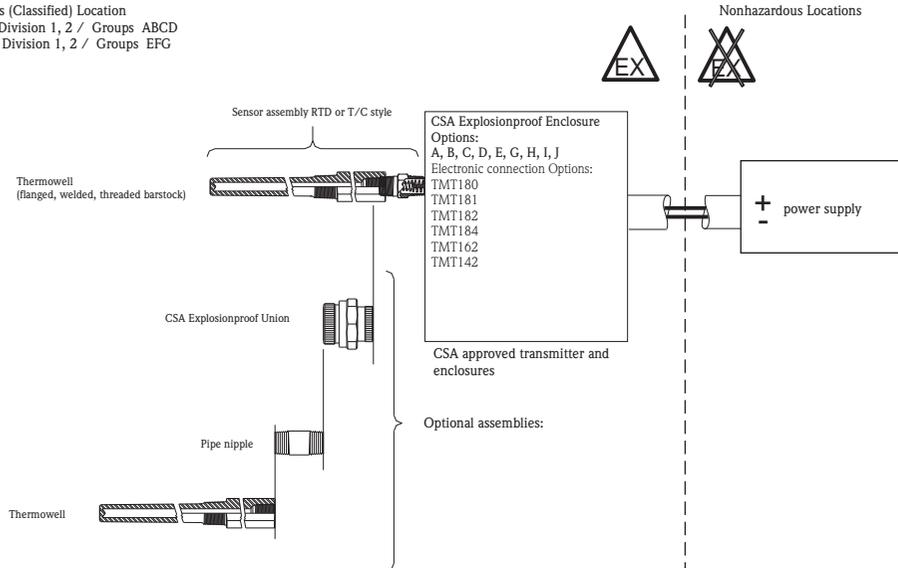


Hazardous (Classified) Location  
 Class I / Division 1, 2 / Groups ABCD  
 Class II / Division 1, 2 / Groups EFG  
 Class III



**Temperature range for E+H Transmitters TMT180, TMT181, TMT182, TMT184**

T4 -40°C ... +85°C  
 T5 -40°C ... +80°C  
 T6 -40°C ... +70°C

**Temperature range for E+H Field Transmitters TMT162, TMT42**

T4 -40°C ... +85°C (-40°C ... +70°C with display)  
 T5 -40°C ... +70°C  
 T6 -40°C ... +55°C

max. Process temperature range ≤ +130°C

CSA Explosionproof approved temperature sensor assemblies and accessory hardware for the following locations:

Type	Hazardous location
T13/T53 and T14/T54 with enclosures C, D, E, F	Class I / Div. 1 / Groups BCD Class II,III / Div. 1 / Groups EFG
T13/T53 and T14/T54 with enclosures A, B, G, H, I, J	Class I / Div. 1 / Groups ABCD Class II,III / Div. 1 / Groups EFG

**Installation Notes T13, T14, T53, T54**

- CSA approved apparatus must be installed in accordance with manufacturer's instructions.
- Install per Canadian Electrical Code.
- Use supply wires suitable for 5°C above surroundings.
- Keep tight when circuits alive.
- Inserts TU111 (RTDs) and TU121 (TC) with Additional Option Code "2" (XP Spare Part) need to be used to ensure approved classification.
- Warning: Substitution of components may impair suitability for Class I, Division 2.



**EXPLOSION PROOF  
 DUST IGNITION PROOF**

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

- All conduits must be assembled with a minimum of five full threads engagement.
- For E+H TMT162 & TMT142 Field transmitters seal conduits within 18 inches of enclosure.
- For Class II Extension and/or Thermowell must be used to maintain CSA enclosure 4X rating.
- Class II use a dust tight seal.
- Enclosures must be CSA Explosionproof approved, for appropriate area classification.
- Spring loaded temperature sensors must use a thermowell assembly

**NONINCENDIVE**

**Class I / Div. 2 / Groups ABCD**

- Intrinsic safety barrier not required.
- 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  $V_{oc} \leq V_{max}$ ,  $C_a \geq C_i + C_{cable}$ ,  $L_a \geq L_i + L_{cable}$ .

Transmitter Nonincendive Field Wiring parameters are as follows:

For E+H transmitters TMT162, TMT142, TMT180, TMT181, TMT182, TMT184 (Terminals + and -)

Ui or Vmax ≤ 30 V DC Ci = 0 Li = 0  
 Ci = 144 nF for TMT180

For E+H Field transmitters TMT162 & TMT142 connected to Foundation Fieldbus

Ui or Vmax ≤ 35 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.

- Supply circuit for E+H Field transmitters TMT162 & TMT142 (Terminals + and -)  
 U ≤ 40 V DC  
 P ≤ 3 W
- Supply circuit for E+H head transmitters TMT180, TMT181, TMT182, TMT184 (Terminals + and -)  
 U ≤ 30 V DC  
 P ≤ 750 mW (≤ 5.5W for TMT184)

	Approved Pfanzelt	Date (yyyy-mm-dd) 2006-03-14	Drawing No. 16 01 00 118	Dwg.rev. A	Revision no. T06504	Revision date (yyyy-mm-dd) 2006-05-30	Name MP	Material 71026122 ZD 055R/09/en/06.06	<b>Endress+Hauser</b>
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2005-10-24	Unit T13, T14, T53, T54	Scale 1:1	Title <b>CONTROL DRAWING CSA</b>		Series		
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No. -	Format A4	XP, DIP, NI		Objekt version	Sheet 1 of 1	Endress + Hauser Wetzlar GmbH+Co. KG Nesselwang / Germany