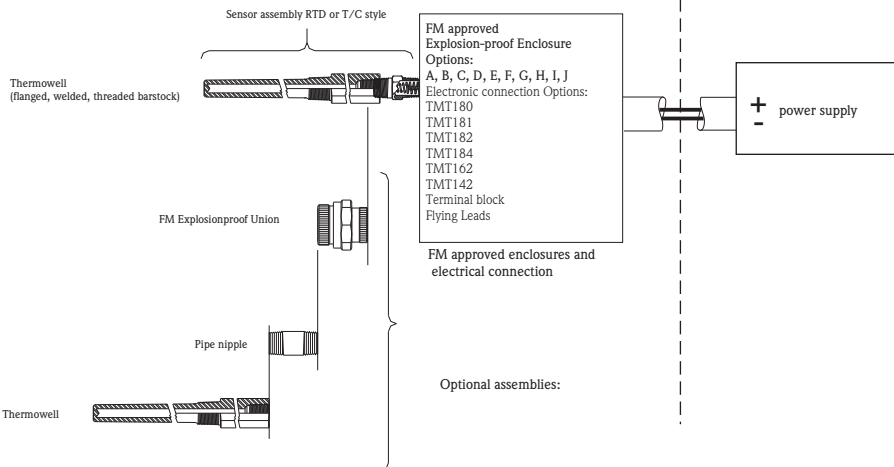


Hazardous (Classified) Location  
 Class I / Division 1 / Groups ABCD  
 Class II / Division 1 / Groups EFG  
 Class III



FM approved Explosion-proof Enclosure  
 Options:  
 A, B, C, D, E, F, G, H, I, J  
 Electronic connection Options:  
 TMT180  
 TMT181  
 TMT182  
 TMT184  
 TMT162  
 TMT142  
 Terminal block  
 Flying Leads

FM approved enclosures and electrical connection

Optional assemblies:

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

- FM Approved Apparatus must be installed in accordance with manufacturer's instructions.
- Install per National Electrical Code (NFPA 70)
- 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 classifications.
- Warning: Substitution of components may impair suitability for approved classification



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

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

- Supply circuit for E+H Field housing transmitters TMT162 & TMT142 (Terminals + and -)

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

$$P \leq 3 \text{ W}$$

- Supply circuit for E+H head transmitters TMT180, TMT181, TMT182, TMT184 (Terminals + and -)

$$U \leq 35 \text{ V DC } (\leq 30\text{V for TMT184})$$

$$P \leq 750 \text{ mW } (\leq 5.5 \text{ W for TMT184})$$

- Supply circuit for FM approved transmitters for ordinary locations

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

$$P \leq 3 \text{ W}$$

FM Explosion-proof 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

**max. ambient 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

**max. ambient temperature range for E+H Field Transmitters TMT162, TMT142**

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

**max. ambient temperature range without transmitter (except TMT162, TMT142)**

T4 -50°C ... +100°C  
 T5 -50°C ... +95°C  
 T6 -50°C ... +80°C

**max. Process temperature range ≤ +130°C**

Approved	Pfanzelt	Date (yyyy-mm-dd)	2006-05-18	Drawing No.	16 01 00 113			Dwg.rev.	Revision no.	Revision date (yyyy-mm-dd)	Name	Material	71032119 ZD057R/09/en/07.06	<b>Endress+Hauser</b>
Volume (mm³)	Designed	Date (yyyy-mm-dd)	2006-03-10	Unit	T13, T14, T53, T54			Scale	Title		Series			
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No.	-			Format	A4		CONTROL DRAWING FM Explosion-proof		Objekt version	Sheet 1 of 1	