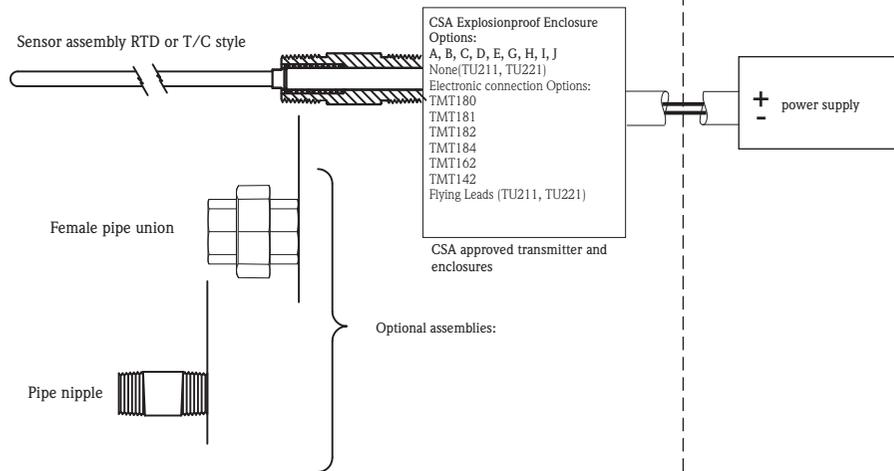


Hazardous (Classified) Location
 Class I / Division 1, 2 / Groups BCD
 Class II / Division 1, 2 / Groups EFG
 Class III

CSA Explosionproof Union

Nonhazardous Locations



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, TMT 142

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. ambient Process temperature range ≤ +130°C

Installation Notes T15, T55, TU221, TU211

- 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.
- Warning: Substitution of components may impair intrinsic safety or suitability for Class I, Division 2.



EXPLOSION PROOF

Class I / Div. 1 / Groups BCD

DUST IGNITION PROOF

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 Explosion proof approved, for appropriate area classification (TU211, TU221).

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 -)

U_i or $V_{max} \leq 30$ V DC $C_i = 0$ $L_i = 0$
 $C_i = 144$ nF for TMT180

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

U_i or $V_{max} \leq 35$ V DC $C_i = 5.3$ nF $L_i = 0$

I_i or I_{max} = see following note below

For these current controlled circuits, the parameter I_{max} is not required and need not to be aligned with parameter I_{sc} and I_t of the Associated Nonincendive Field Wiring Apparatus or Associated Apparatus.

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

$U \leq 40$ V DC

$P \leq 3$ W

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

$U \leq 30$ V DC

$P \leq 750$ mW (≤ 5.5 W for TMT184)

	Approved Pfanzelt	Date (yyyy-mm-dd) 2006-03-14	Drawing No. 16 01 00 117	Dwg.rev. A	T06504	2006-05-30	MP	71026123 ZD 054R/09/en/06.06	Endress+Hauser
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2005-10-24	Unit T15, T55, TU211, TU221	Scale 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	XP, DIP, NI		Objekt version 1 of 1	Sheet 1 of 1	Endress + Hauser Wetzler GmbH+Co. KG Nesselwang / Germany