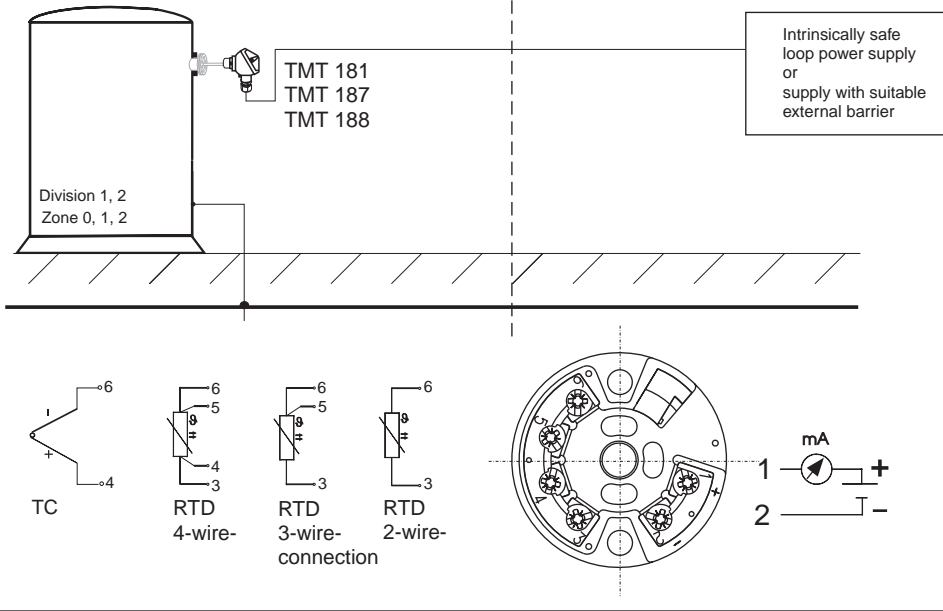


Hazardous (Classified) Location
 Class I / Division 1, 2 / Groups ABCD
 Class I / Zone 0 / AEx ia IIC
 NI / Class I / Div. 2 / GR. ABCD



Nonhazardous Locations

Associated Intrinsically Apparatus



Installation Notes TMT 181, TMT 187, TMT 188

- 1) FMRC certified apparatus must be installed in accordance with manufacturer's instructions.
- 2) FMRC certified associated apparatus must meet the following requirements:
 U_o or $V_{oc} \leq U_i$ or V_{max} I_o or $I_{sc} \leq I_i$ or I_{max} P_o or $P_{max} \leq P_i$ or P_{max}
 $C_a \geq C_i + C_{cable}$ $L_a \geq L_i + L_{cable}$
- 3) The installation must be in accordance with the National Electrical Code NEC ANSI / NFPA 70, Article 504 and ANSI / ISA-RP 12.6
- 4) Use supply wires suitable for 5°C above surrounding.
- 5) The configuration of the headtransmitter TMT 181 is only permitted in nonhazardous locations.
- 6) The voltage of the "tools" used for configuration should not exceed $U_m = 30$ V.
 This can be achieved e.g. by a battery powered laptop. An approved adapter with barrier (e.g. TMT 181A) has to be used for configuration using a PC with mains connection ($U_m < 253$ V).



Warning: Substitution of Components may impair intrinsic safety

TMT 181 / TMT 187 / TMT 188		IS / Class I / Division 1 / Groups ABCD / T4/T5/T6 Class I / Zone 0 / AEx ia IIC / T4/T5/T6 NI / Class I / Division 2 / Groups ABCD / T4/T5/T6	
Supply circuit (Terminal 1 and 2)		$V_{max} = U_i \leq 30$ VDC $I_{max} = I_i \leq 100$ mA $P_{max} = P_i \leq 750$ mW $C_i \sim 0$ $L_i \sim 0$	
Sensor circuit (Terminal 3 until 6)		$V_{oc} = U_o \leq 8.2$ VDC $I_{sc} = I_o \leq 4.5$ mA $P = P_o \leq 9.36$ mW	
Max. Connecting Values	Group A, B AEx ia IIC Group C AEx ia IIB Group D AEx ia IIA	$L_a = L_o = 4.5$ mH $L_a = L_o = 8.5$ mH $L_a = L_o = 1000$ mH	$C_a = C_o = 974$ nF $C_a = C_o = 1900$ nF $C_a = C_o = 210$ μ F
Temperature range		T6: $T_a = -40^\circ\text{C} \dots +55^\circ\text{C}$ T5: $T_a = -40^\circ\text{C} \dots +70^\circ\text{C}$ T4: $T_a = -40^\circ\text{C} \dots +85^\circ\text{C}$	

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Edge of working parts ISO 13715 		Geometrical Tolerancing ISO 2768-mH-E		series	Scale	Volume: [mm ³]
					Material ZD 002R/09/en/08.00	Ident.-No. 510 01932
		Date		Name	Title	
		Drawn 1999-12-13		Kellermann	CONTROL DRAWING FM ITEMP TMT 181(7)(8)	
		Check. 2000-12-17		Kellermann		
		Norm				
		Sheet size A4		Repl. for:		
A	2000-09-01	TK	ENDRESS+HAUSER		Drawing No.	Sheet 1
Index	Revision	Date	Name	WETZER	14 05 00 111	Of 1