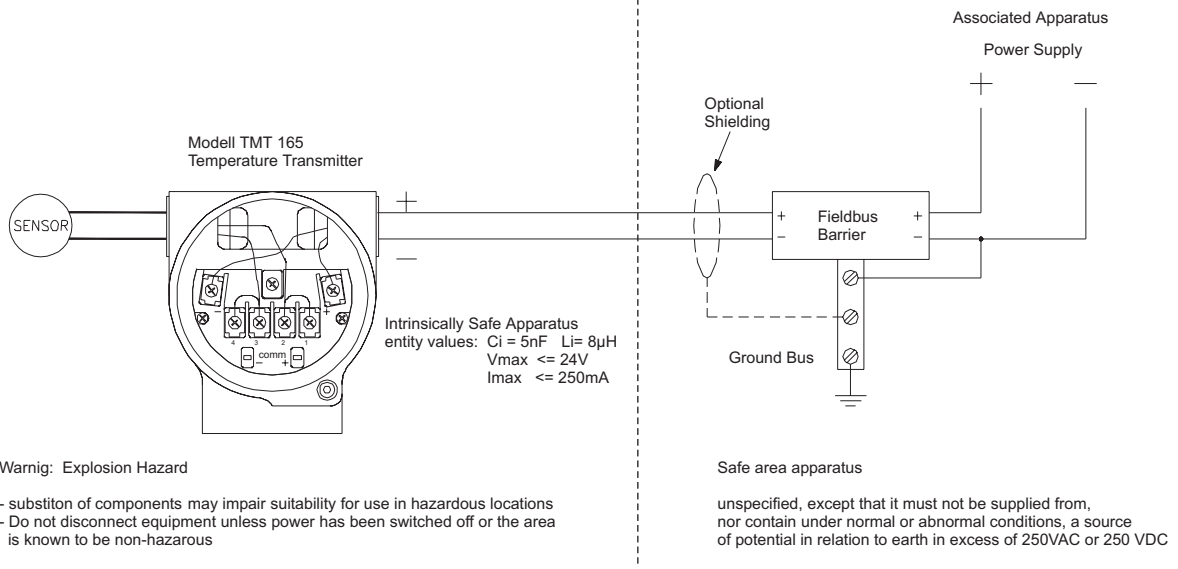


Hazardous (Classified) Location
Class I, II, III / Division 1, 2 / Groups ABCDEFG



Nonhazardous Locations
or Division 2 Area



Installation Notes TMT 165

- 1) Installation must be in accordance with National Electrical Code ANSI / NFPA 70 and ANSI / ISA 12.6
- 2) Transmitter specifications must be in accordance to approval listing
- 3) Associated apparatus ground bus to be insulated from panels and mounting enclosures
- 4) Wires: twist pair, 22AWG or larger
- 5) Shield is optional if used, be sure to insulate the end not grounded
- 6) Cable capacitance and inductance plus Ci and Li must be smaller than Ca and La of the associated apparatus
- 7) Only simple apparatus can be connected to the sensor terminals 1, 2, 3, 4
Simple apparatus is a device that will not generate or store more than 1.2V, 0.1A, 25mW or 20µJ
Examples are Switches, Thermocouples, Resistance Temperature Detectors

FM certified associated apparatus must meet the following requirements:
 $V_{oc} \leq V_{max}$ $I_{sc} \leq I_{max}$ $C_a \geq C_i + C_{cable}$ $L_a \geq L_i + L_{cable}$

Entity Parameters for Temperature Terminals:

TMT 165		INTRINSICALLY SAFE Class III, III / Division 1, 2 / Groups ABCDEFG	
Supply circuit (Terminal + and -)		$V_{max} < 24 \text{ V}$ $I_{max} < 250 \text{ mA}$ $C_i \sim 5 \text{ nF}$ $L_i \sim 8 \mu\text{H}$	
Sensor circuit (Terminal 1, 2, 3, 4)		$V_t = 8.25 \text{ V}$ $I_t = 85.3 \text{ mA}$	
Max. Connecting Values (concentrative L, C e.g. cable)	Group A, B	$L_a = 4.8 \text{ mH}$ $C_a = 5.5 \mu\text{F}$	

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Edge of working parts ISO 13715 		Geometrical Tolerancing ISO 2768-mH-E		Series	Scale	Volume: [mm ³]
					Material ZD 005R/09/en/12.00	Ident.-No. 510 03510 (14 09 00 111)
		Date	Name	Title CONTROL DRAWING FM ITEMP TMT 165		
		Drawn 2000-09-15	Kellermann			
		Check 2000-09-15	Kellermann			
		Norm				
		Sheet size A4		Drawing No. 102A0606		
		Repl. for:				
Index		Revision		Date		Name
Part:		ENDRESS+HAUSER WETZER		Sheet 1		Of 1