



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

Nonhazardous Locations

e.g. Remote mount sensor configuration



Hazardous (Classified) Location
Class I / Division 2 / Groups ABCD

Nonhazardous Locations



Installation Notes T82

- FM Approved Apparatus must be installed in accordance with manufacturer's instructions.
- Use supply wires suitable for 5 °C above surroundings.
- Only simple apparatus should be terminated to the sensor connection.
- Simple apparatus are components as defined by the NEC (1.2 V, 0.1 A, 0.25 mW or 20 μJ).
- Warning: Substitution of components may impair intrinsic safety or suitability for Class I, Division 2.

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

- Install per National Electrical Code (NFPA 70)
- For Group A, seal all conduits within 18 inches of enclosure; otherwise, conduit seal not required for compliance with NEC 501.5(A)(1)(1).
- All conduits must be assembled with a minimum of five full threads engagement.
- Temperature sensor assembly must be FM approved for appropriate area classification.
- Class II use a dust tight seal
- Keep tight when circuits alive

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

- Depending on location install per National Electrical Code (NEC) using wiring methods described in article 500 through article 510.
- Intrinsic safety barrier not required. $V_{max} \leq 35 \text{ V dc}$.
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be non hazardous.
- 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:
 U_i or $V_{max} \leq 35 \text{ V dc}$ $C_i = 0$ $L_i = 0$
 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.

Temperature range

without display, D10	with display, D10
T4 -50 °C ... +85 °C	T4 -40 °C ... +85 °C
T5 -50 °C ... +80 °C	T5 -40 °C ... +80 °C
T6 -50 °C ... +70 °C	T6 -40 °C ... +70 °C


NONINCENDIVE, FIELD WIRING **NI Class I / Div. 2 / Groups ABCD**

Sensor circuits (Terminals 3...7)

U_o or V_{oc} or $V_t = 7.6 \text{ V}$	I_o or $I_{sc} = 13 \text{ mA}$	$P_o = 24.7 \text{ mW}$
Group A, B resp. IIC	C_o or $C_a = 10.4 \mu\text{F}$	L_o or $L_a = 236 \text{ mH}$
Group C, D resp. IIB	C_o or $C_a = 160 \mu\text{F}$	L_o or $L_a = 946 \text{ mH}$
Group C, D resp. IIA	C_o or $C_a = 1000 \mu\text{F}$	L_o or $L_a = 1.893 \text{ H}$

Functional ratings

These ratings do not supersede Hazardous Location values
 $U_{nom} \leq 42 \text{ dc}$ $I_{nom} \leq (4 \text{ to } 20) \text{ mA}$

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