

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



Nonhazardous Locations

Remote mount sensor configuration



CSA explosion proof approved temperature sensor assembly

Direct mount sensor configuration:



CSA explosion proof approved temperature sensor assembly

### Temperature range

- T4 -40 °C ... +85 °C
- T5 -40 °C ... +70 °C
- T6 -40 °C ... +55 °C

### NONINCENDIVE, FIELD WIRING

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

Sensor circuits (Terminals 1...6)

$U_o$ or $V_{oc}$ or $V_t = 7.6$ V	$I_o$ or $I_{sc} = 29.3$ mA	$P_o = 55.6$ mW
Group A, B resp. IIC	$C_o$ or $C_a = 10.4$ $\mu$ F	$L_o$ or $L_a = 40$ mH
Group C resp. IIB	$C_o$ or $C_a = 160$ $\mu$ F	$L_o$ or $L_a = 150$ mH
Group D resp. IIA	$C_o$ or $C_a = 1000$ $\mu$ F	$L_o$ or $L_a = 300$ mH

### Installation Notes Series 662



- CSA 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 CEC (1.2 V, 0.1 A, 0.25 mW or 20  $\mu$ J).
- Warning: Substitution of components may impair intrinsic safety or suitability for Class I, Division 2.

### EXPLOSION PROOF

**Class I / Div. 1 / Groups ABCD**

### DUST IGNITION PROOF

**Class II, III / Div. 1 / Groups EFG**

- Installation should be in accordance with the Canadian Electrical Code (CEC).
- 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 CSA approved for appropriate area classification.
- Class II use a dust tight seal.
- Keep tight when circuits alive.
- $U \leq 40$  V dc     $P \leq 3$  W

### 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:

$$U_i \text{ or } V_{max} \leq 40 \text{ V dc} \quad C_i = 5.3 \text{ nF} \quad L_i = 0$$


$I_i$  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.

### Functional ratings

These ratings do not supersede Hazardous Location values

$$U_{nom} \leq 40 \text{ dc} \quad I_{nom} \leq (4 \text{ to } 20) \text{ mA}$$

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