Installation Notes RIA14

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

- CSA certified apparatus must be installed in accordance with manufacturer's instructions.
- Installation must be in accordance with Canadian Electrical Code.
- Use supply wires suitable for 5°C above surroundings.
- Conduit seal required at 18°.
- All Conduits must be assembled with a minimum of five full threads engagement.
- A dust tight seal must be used for conduit entry when the field display is used in a Class II or Class III location.
- Keep tight when circuits alive.
- Warning: Substitution of components may impair suitability for Class I, Division 2.
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.
- Supply circuit (Terminals + and 1)
  \[ V_{\text{max}} \leq 35 \text{ V DC} \]
  \[ P_{\text{max}} = 1.75 \text{ W} \]
- Open Collector (Terminals 2 and 3)
  \[ V_{\text{max}} \leq 35 \text{ V DC} \]
  \[ P_{\text{max}} \leq 875 \text{ mW} \]

Temperature range
- T4: -40°C...+80°C
- T5: -40°C...+70°C
- T6: -40°C...+55°C

Connecting a passive current source
e.g. a sensor with its own power supply and active current output

Connecting a passive current source
e.g. 2-wire transmitter with additional loop power supply

Nonhazardous Locations

Hazardous (Classified) Location
Class I / Division 1, 2 / Groups ABCD
Class II / Zone 0 / IC T6/T5/T4a
Class III / Division 1, 2 / Groups EFG
Class III

Connecting a passive current source
e.g. Process Transmitter

Active

Passive

loop power supply

see also installation notes for using power supply
**Nonhazardous Locations**

- Class I / Zone 2 / Ex nA IIC

**Hazardous (Classified) Location**

- Class I / Zone 2 / Ex nA IIC
- Class II, III/Division 1/ Groups EFG

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**Temperature range**

- **T4** -40°C ... +80°C
- **T5** -40°C ... +70°C
- **T6** -40°C ... +55°C

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**Nonincendive FIELD WIRING**

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 \( V_{oc} \leq V_{max} \), \( C_a \geq C_i + C_{able}, L_a \geq L_i + L_{able} \).

Transmitter Nonincendive Field Wiring parameters are as follows:

**Supply circuit (Terminals + and 1)**

- Supply voltage \( \leq 35 \text{ V DC} \)
- Signal current: \( 4 \text{–} 20 \text{mA} \)

**Open Collector (Terminals 2 and 3)**

- Supply voltage \( \leq 35 \text{ V DC}, \text{max. } 100\text{mA} \)

**Nonincendive, Field Wiring**

- Class I / Zone 2 / Ex nA IIC

**Intrinsic safety barrier not required.**

Supply circuit (Terminals + and 1)

- Supply voltage \( \leq 35 \text{ V DC} \)
- Signal current: \( 4 \text{–} 20 \text{mA} \)

Open Collector (Terminals 2 and 3)

- Supply voltage \( \leq 35 \text{ V DC}, \text{max. } 100\text{mA} \)

- Intrinsic safety barrier not required.

**Supply circuit (Terminals + and 1)**

- Supply voltage \( \leq 35 \text{ V DC} \)
- \( C_a \geq C_i + C_{able}, L_a \geq L_i + L_{able} \)

**Open Collector (Terminals 2 and 3)**

- Supply voltage \( \leq 35 \text{ V DC} \)
- \( C_a \geq C_i + C_{able}, L_a \geq L_i + L_{able} \)

**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.**

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**Installation Notes RIA14**

- CSA certified apparatus must be installed in accordance with manufacturer’s instructions.
- Installation must be in accordance with Canadian Electrical Code (CEC) Section 18.
- Use supply wires suitable for 5°C above surroundings.
- A dust tight seal must be used for conduit entry when the field display is used in a Class II or Class III location.
- The device for Class I, Zone 2, Ex nA IIC is suitable for installation in Class I, Division 2, Groups A, B, C, D per CEC Section 18-000 Subrule (5).
- Warning: Substitution of components may impair suitability for Class I, Division 2.
- Warning: Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.