Hazardous (Classified) Locations
LI,L2/1-2/ABCDEF/G
I, Zone 0 IIC

Nonhazardous Locations

Installation Notes RIA45
- CSA Approved Apparatus must be installed in accordance with manufacturer’s instructions.
- Depending on location install per National Electrical Code (CEC) using wiring methods.
- Use supply wires suitable for 5°C above surroundings.
- For Non-hazardous area install the device of Protection Ratings of least NEMA 1, Type 1
- For hazardous area Class I, II install the device of Protection Ratings of least NEMA 4X, Type 4X.
- For Class II keep tight when circuits alive.
- The unit is installed in Class I, Division 2 area with two I.S. output channels (1 & 2), with cables clearance of
  2 mm minimum.
- Warning: Substitution of components may impair suitability for Class I, Division 2.

INTRINSICALLY SAFE
- The device is an Associated intrinsically safe equipment and must be installed in Division 2 or non-
  hazardous Locations only.
- Installation should be in accordance with the Canadian Electrical Code (CEC).
- For entity installations use certified equipment that satisfy the following condition
  \[ U_{o} / V_{oc} \leq \frac{V_{max}}{U_{i}} \] 
  \[ I_{o} / I_{sc} \leq \frac{I_{max}}{I_{i}} \] 
  \[ P_{o} \leq P_{i} \] 
  \[ C_{o} / C_{i} \geq C_{i} + C_{cable} \] 
  \[ L_{o} / L_{c} \geq L_{i} + L_{cable} \]
- The Terminal of the intrinsically safe circuit must be placed at least a distance of 50mm from
terminals of the non intrinsically safe circuits, or adequate separators (e.g. ground metal partitions) must be used.

NONINCENDIVE Field Wiring INSTALLATION Class I / Div. 2 / Groups ABCD
- The device is an Associated Nonincendive safe equipment and must be installed in Division 2 or
  non-hazardous Locations only.
- 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
  \[ V_{oc} / U_{o} \leq \frac{V_{max}}{U_{i}} \] 
  \[ I_{o} / I_{sc} \leq \frac{I_{max}}{I_{i}} \] 
  \[ P_{o} \leq P_{i} \] 
  \[ C_{o} / C_{i} \geq C_{i} + C_{cable} \] 
  \[ L_{o} / L_{c} \geq L_{i} + L_{cable} \]
- For entity installations use certified equipment that satisfy the following condition

Temperature range
- \[ T_{a} \leq -20°C \ldots +60°C \]

ASSOCIATED INTRINSICALLY SAFE
- Class I, Zone 0 [Ex ia] IIC
- Class I, Zone 2 Ex nA[ia] IIC

ASSOCIATED NONINCENDIVE
- Class I / Div. 2 / Groups ABCD
- \[ T_{a} \leq -20°C \ldots +60°C \]
Power supply  
U ≤ 24...230 V AC/DC (-20%/+10%) 50/60 Hz

Terminal L / +, L / -, PE

Output circuit limit relays  
Umax ≤ 250 VAC  
Imax ≤ 3A

Terminal R12, R11, R13 or  
Umax ≤ 30 DC  
Imax ≤ 3A

R22, R21, R23

CDI interface for device configuration

Impulse or Current output  
0/4...20 mA

Terminal 015, 016 or 025, 026  
Um ≤ 250 V

Output collector  
Imax ≤ 200 mA

Terminal D11, D12  
Um ≤ 30 VDC

ASSOCIATED INTRINSICALLY SAFE

Cl. I, Gps ABCD  
Cl. II, Gps EFG, Cl. III

Cl. I, Zone 0, IIC

Voc ≤ Vmax  
Isc ≤ Imax

Ca ≥ Ci + Ccable  
La ≥ Li + Lcable

Po ≤ Pi

ASSOCIATED NONINCENDIVE FIELD WIRING

Voc ≤ Vmax  
Ca ≥ Ci + Ccable  
La ≥ Li + Lcable

Current input:  
Voc ≤ 27.3 V

Terminal 14, 18 or  
24, 28

Po = 34.2 mW

Group A, B resp. IIC  
Ca = 80 nF  
La = 4.125 mH

Group C, D resp. IIB, IIA  
Ca = 675 nF  
La = 17.025 mH

Voltage input:  
Voc ≤ 27.3 V

Terminal 17, 18 and 13, 18 or  
27, 28 and 23, 28

Po = 34.2 mW

Group A, B resp. IIC  
Ca = 80 nF  
La = 1.525 H

Group C, D resp. IIB, IIA  
Ca = 675 nF  
La = 6.325 H

Entity parameters for channel 1&2 – Only one connected at a time:

2-wire transmitter power supply:  
Voc ≤ 27.3 V

Terminal 11, 12, 18 or  
21, 22, 28

Po = 659 mW

Group A, B resp. IIC  
Ca = 80 nF  
La = 4.625 mH

Group C, D resp. IIB, IIA  
Ca = 675 nF  
La = 19.125 mH

4-wire transmitter power supply:

Voc ≤ 27.3 V

Terminal 11, 12 or  
21, 22

Isc ≤ 91.1 mA  
Po = 622 mW

Group A, B resp. IIC  
Ca = 80 nF  
La = 4.625 mH

Group C, D resp. IIB, IIA  
Ca = 675 nF  
La = 19.125 mH

4-wire transmitter power supply:

Voc ≤ 27.3 V

Terminal 14, 18 or  
24, 28

Isc ≤ 5 mA  
Po = 34.2 mW

Group A, B resp. IIC  
Ca = 80 nF  
La = 1.525 H

Group C, D resp. IIB, IIA  
Ca = 675 nF  
La = 6.325 H

4-wire transmitter power supply:

Voc ≤ 27.3 V

Terminal 14, 18 or  
24, 28

Isc ≤ 5 mA  
Po = 34.2 mW

Group A, B resp. IIC  
Ca = 80 nF  
La = 1.525 H

Group C, D resp. IIB, IIA  
Ca = 675 nF  
La = 6.325 H