Installation Notes RN221N
- FM Approved Apparatus must be installed in accordance with manufacturer’s instructions.
- Depending on location install per National Electrical Code (NEC) using wiring methods described in article 500 through article 510.
- Use supply wires suitable for 5°C above surroundings.
- Install the device of Protection Ratings of least IP20, NEMA 1, Type 1.
- The active Barrier must be connected to a suitable ground.

INTRINSICALLY SAFE CONNECTION TO Class I, II, III / Div. 1+2 / Groups ABCDEFG
- The device is an Associated intrinsically safe equipment and must be installed only in non-hazardous locations.
- Installation should be in accordance with ANSI/ISA RP 12.6.01 “Installation of Intrinsically safe systems for Hazardous (classified) locations” and the National Electrical Code (ANSI/NFPA 70).
- For entity installations use certified equipment that satisfy the following condition:
  \[ U_o/V_{oc} \leq V_{max}/U_i \]
  \[ I_o/I_{sc} \leq I_{max}/I_i \]
  \[ P_o \leq P_i \]
  \[ C_o/C_{a} \geq C_i + C_{cable} \]
  \[ L_o/L_{a} \geq L_i + L_{cable} \]
- 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 Connection TO Class I, II, III / Div. 2 / Groups ABCDEFG
- The device is an Associated Nonincendive safe equipment and must be installed only in nonhazardous locations.
- 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 \( V_{oc} \leq V_{max}, C_o/C_{a} \geq C_i + C_{cable}, L_o/L_{a} \geq L_i + L_{cable} \).
- For entity installations use certified equipment that satisfy the following condition:
  \[ U_o/V_{oc} \leq V_{max}/U_i \]
  \[ I_o/I_{sc} \leq I_{max}/I_i \]
  \[ P_o \leq P_i \]
  \[ C_o/C_{a} \geq C_i + C_{cable} \]
  \[ L_o/L_{a} \geq L_i + L_{cable} \]

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Hazardous (Classified Locations
Class I, Groups ABCD
Class II, Groups EFG
Class III
Class I, Zone 0 Group IIC
Class I, Zone 2 Group IIC

Nonhazardous Locations
Class I, IIC, Cl. 0, [AEx ia] IIC
Class I, Div. 1+2, Groups ABCDEFG
Cl. I, Zone 0 [AEx ia] IIC
Class I, Zone 2 Group IIC