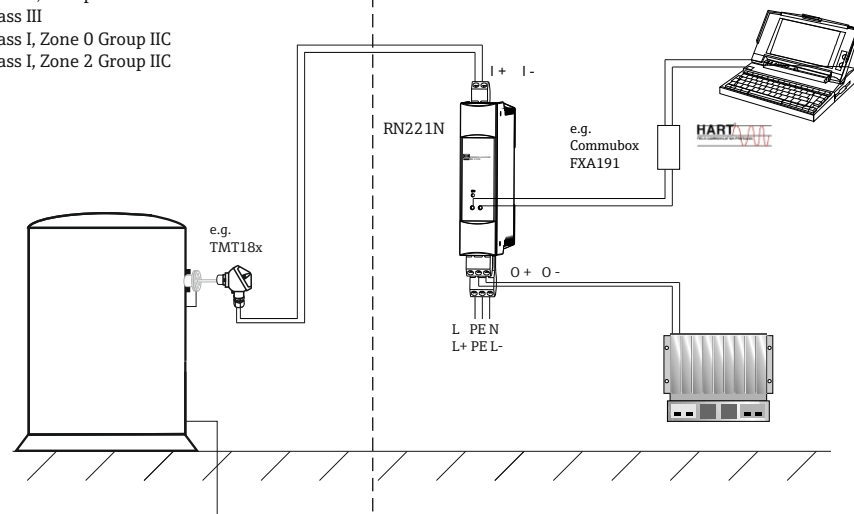


Hazardous (Classified) Locations
Class I, Groups ABCD
Class II, Groups EFG
Class III
Class I, Zone 0 Group IIC
Class I, Zone 2 Group IIC

Nonhazardous Locations



Temperature range

Ta -20°C ... +50°C

AIS

Class I, II, III, Div. 1+2, Groups ABCDEFG

Cl. I, Zone 0 [AEx ia] IIC

ANI

Class I, II, III, Div. 2, Groups ABCDEFG

Supply	L/L+	N/L	20 ... 250VDC/AC 50/60Hz
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Ground PE

Output	0+	0-	4 ... 20mA
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(HART Communication) OH

Output (Terminals +I and -I)

$$U_o \text{ or } V_{oc} = 27.3 \text{ V} \qquad I_o \text{ or } I_{sc} = 87.6 \text{ mA} \qquad P_o = 597 \text{ mW}$$

Group A, B resp. |AEx ia| IIC Co or Ca = 86 nF Lo or La = 2.9 mH

Group C resp. [AEx ia] IIB Co or Ca = 681nF Lo or La = 9.9 mH

Group D resp. [AEx ia] IIA Co or Ca = 2278 nF Lo or La = 19.9 mH

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

$$U_o/V_o \leq V_{max}/U_i \quad I_o/I_{sc} \leq I_{max}/I_i \quad P_o \leq P_i \quad C_o/C_a \geq C_i + C_{cable} \quad L_o/L_a \geq L_i + L_{cable}$$
- 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 CONNNECTION 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 $V_{oc} \leq V_{max}$, $C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$.
- For entry installations use certified equipment that satisfy the following condition

$$U_o/V_{oc} \leq V_{max}/U_i \quad I_o/I_{sc} \leq I_{max}/I_i \quad P_o \leq P_i \quad C_o/C_a \geq C_i + C_{cable} \quad L_o/L_a \geq L_i + L_{cable}$$

	Approved Pfanzelt	Date (yyyy-mm-dd) 2002-01-15	Drawing No. 02 02 00 111	Dwg.rev. A	Revision no. K05502	Revision date (yyyy-mm-dd) 2005-01-07	Name MP	Material 71540236 XA02343R/09/EN/01.20	Endress+Hauser 
Volume (mm³)	Designed Pfanzelt	Date (yyyy-mm-dd) 2002-01-15	Unit RN221N	Scale 1:1	Title CONTROL DRAWING FM			Series	
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No. -	Format A4				Objekt version	