

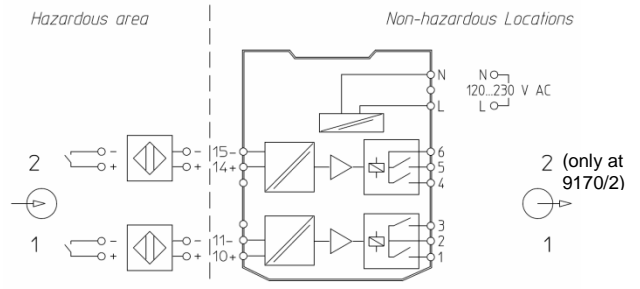
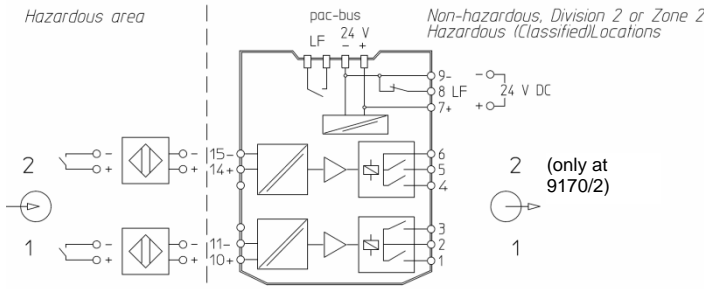
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F 4830 503 G

Type 9170/*1--1***
(for 24 V DC)

Type 9170/*1--2***
(for 120/230 V AC or with power relay)



The Switching Repeater Type 9170/*1-d-1* (d = 0, 1, 4) is an associated apparatus as well as a nonincendive apparatus for installation in non-hazardous or Class 1, Division 2 or Zone 2 Hazardous (Classified) Locations and provides intrinsically safe connections for one (or two) field devices located in Class I, II, III, Division 1, Group A-G or Class I, Zone 0 [AEx ia] Group IIC, hazardous locations according to NEC Article 504/505 as listed below.

The Switching Repeater Type 9170/*1-**-2* and Type 9170/*1-d-2* (d = 2, 3) is an associated apparatus located in a non-hazardous location and provides intrinsically safe connections for one (or two) field devices located in Class I, II, III, Division 1, Group A-G, hazardous locations according to NEC Article 504/505 as listed below.

Switching Repeater Type 9170/a1-cd-ef

- a = numeral 1 or 2 for number of channels
- d = numeral 0, 1, 2, 3 or 4 for output stage
- f = numeral 0, 1, 2 or 3 for line fault detection
- c = numeral 1, 2, 3, 4, 5 or 6 for input signals
- e = numeral 1 or 2 for power supply

Entity parameters for wiring configurations are as follows:

	V _{OC} [V]	I _{SC} [mA]	P _O [mW]	L _O CL I, DIV 1, A,B / Zone 0, GP IIC	L _O CL I, DIV 1, C-G / Zone 0, GP IIB	C _O CL I, DIV 1, A,B / Zone 0, GP IIC	C _O CL I, DIV 1, C-G / Zone 0, GP IIB	V _{max}	I _{max}
Type 9170/*1-c-**-** (with c = 1, 3, 4, 5 or 6) input circuits parallel	9.6	10	24	350 mH	1000 mH	3.6 µF	26 µF	-	-
Type 9170/*1-2-**-** input circuits parallel	9.6	0.61	1.5	1000 mH	1000 mH	3.6 µF	26 µF	-	-
	9.6	1.22	3:0	1000 mH	1000 mH	3.6 µF	26 µF	-	-

Notes:

1. For Connections refer to chapter Commissioning of Operating Instruction ID-No. 91 706 12 31 0.
2. Intrinsically safe apparatus may be switches, thermocouples, LEDs, RTDs or an FM Approved System or Entity device connected in accordance with the manufacturer's installation instructions.
3. For Entity concept use the appropriate parameters to ensure the following:

$$V_i \text{ or } V_{OC} \leq V_{max} \quad C_o, C_a \geq C_i + C_{leads} \quad P_o \leq P_i$$

$$I_i \text{ or } I_{SC} \leq I_{max} \quad L_o, L_a \geq L_i + L_{leads}$$
4. Electrical apparatus connected to an intrinsically safe system should not use or generate voltages > 250 V (U_{max}).
5. Installation should be in accordance with Article 504/505 of the National Electrical Code, ANSI/NFPA 70 and ANSI/ISA RP 12.06.01.
6. Installation in Canada should be in accordance with the Canadian Electrical Code, CSA C22.1, Part 1, Appendix F.
7. Use a general purpose enclosure meeting the requirements of IEC 61010-1 for use in non-hazardous or Class I, Division 2, Hazardous (Classified) Locations.
8. Use an FM Approved Dust-ignition proof enclosure appropriate for environmental protection in Class II, Division 1, Groups E, F and G; and Class III, Hazardous (Classified) Locations.
9. These modules are to be mounted on DIN rail, DIN rail with pac-Bus (type 9194) or pac-Carrier (type 9195). The I.S. field wiring in any case is connected to the ISpac device terminals.
10. Ambient temperature: -20°C ... +70°C (any mounting position).

WARNING: Do not disconnect equipment when a flammable or combustible atmosphere is present.
 AVERTISSEMENT: Ne pas débrancher l'équipement en présence d'atmosphère inflammable ou combustible.

The safety relevant statements of this document may be transferred into the operating instructions. Transferring the text, editorial changes of equivalent meaning are allowed.

			2009	Date	Name	Certification drawing	Scale
			drawn	08.05.	Einsiedler		none
			checked		Kaiser		Sheet
						Switching Repeater Type 9170/*1-**-**	1 of 1
							Agency
02	22.10.12	Reistle	STAHL			91 706 02 31 1	FM
01	15.04.11	Reistle					
Version	Date	Name	Ers. f.	Ers. d.			A4