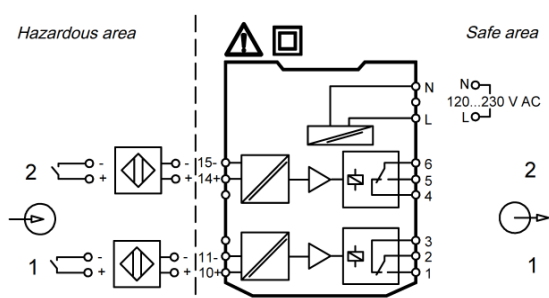
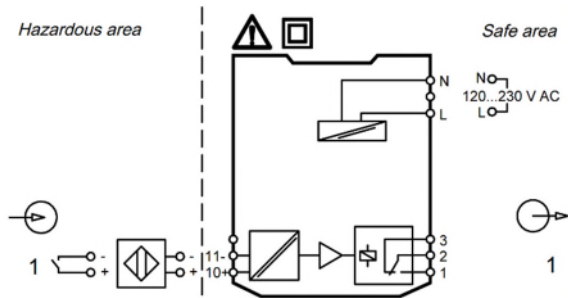


Type 9170/11-1\*-21 (1 channel)

Type 9170/21-1\*-21 (2 channels)



Hazardous area: Class I, II, III; DIV 1; Group A-G or Class I; Zone 0; Group IIC/IIB Hazardous Locations  
 Safe area: Non-hazardous

The Switching Repeater Type 9170 is an associated apparatus for installation in non-hazardous 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/Ex ia] Group IIC, hazardous locations according to NEC and CEC as listed below. The I.S. inputs are limited with linear characteristic.

Type 9170/a1-1d-21

a = numeral 1 or 2 for number of channels  
 d = numeral 0, 1, 2 or 3 for characterising the output

Entity parameters for wiring configurations are as follows:

	V <sub>OC</sub> [V]	I <sub>SC</sub> [mA]	P <sub>O</sub> [mW]	L <sub>O</sub> CL I, DIV 1, A,B / Zone 0, GP IIC	L <sub>O</sub> CL I, DIV 1, C-G / Zone 0, GP IIB	C <sub>O</sub> CL I, DIV 1, A,B / Zone 0, GP IIC	C <sub>O</sub> CL I, DIV 1, C-G / Zone 0, GP IIB
Type 9170/*1-1*-21	9.6	10	24	350 mH	1000 mH	3.6 µF	26 µF
Two input circuits in parallel	9.6	20	48	90 mH	340 mH	3.6 µF	26 µF

Maximum supply current (at 96 V AC, terminals L and N):

9170/11-1*-21	11.3 mA
9170/21-1*-21	19.5 mA

Notes:

- For Connections refer to chapter Commissioning of the provided Operating Instructions.
- Intrinsically safe apparatus may be switches, thermocouples, LEDs, RTDs or a third party certified system or Entity device connected in accordance with the manufacturer's installation instructions.  
 For Entity concept use the appropriate parameters to ensure the following:  

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

$$I_i \text{ or } I_{SC} \leq I_{max} \quad L_o, L_a \geq L_i + L_{leads}$$
 For installations in which both the C<sub>i</sub> and L<sub>i</sub> of the intrinsically safe apparatus exceeds 1% of the C<sub>a</sub> (or C<sub>o</sub>) and L<sub>a</sub> (or L<sub>o</sub>) parameters of the associated apparatus (excluding the cable), then 50% of C<sub>a</sub> (or C<sub>o</sub>) and L<sub>a</sub> (or L<sub>o</sub>) parameters are applicable and shall not be exceeded. The reduced capacitance shall not be greater than 1 µF for Groups C and/or D, and 600 nF for Groups A and B.
- This associated apparatus has not been evaluated for use in combination with another associated apparatus.
- Electrical apparatus connected to an intrinsically safe system should not use or generate voltages > 250 V (U<sub>max</sub>).
- Installation should be in accordance with Article 504/505 of the National Electrical Code, ANSI/NFPA 70 and ANSI/ISA RP 12.06.01.
- Installation in Canada should be in accordance with the Canadian Electrical Code, CSA C22.1, Part 1, Appendix F.
- Use a general purpose enclosure meeting the requirements of IEC 61010-1 for use in non-hazardous.
- These modules are to be mounted on DIN rail. The I.S. field wiring in any case is connected to the ISpac device terminals.
- Ambient temperature: -20°C ... +70°C (any position)

WARNING: Do not disconnect equipment when a flammable or combustible atmosphere is present.

			2019	Date	Name	Certification drawing	Scale
			drawn	14.10.	T.Stahl		none
			checked		Kaiser		Sheet
						Type 9170/*1-1*-21	1 of 1
						91 706 03 31 3	Agency
							UL
01	16.01.20	Reistle	<b>STAHL</b>			Ers. f.	Ers. d.
Version	Date	Name					