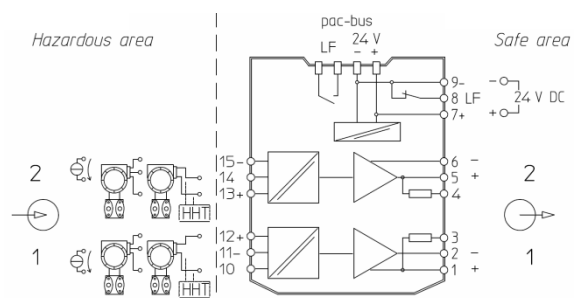
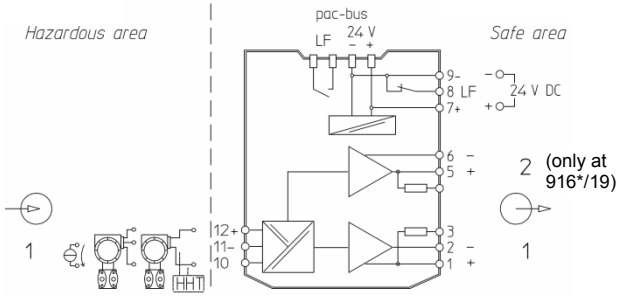


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Type 916*/1*-**-1*(1 channel)

Type 916*/2*-**-1*(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; Division 2 or Zone 2 Hazardous (Classified) Locations

The Transmitter supply unit Type 9160 / Isolating Repeater (HART) Input Type 9163 are associated apparatus as well as nonincendive apparatus for installation in non-hazardous or Class I, 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.

Type 916z/ab-cd-1f

z = 0: Transmitter Supply Unit, z = 3: Isolating Repeater (HART) Input

a = numeral 1 or 2 for number of channels

d = numeral 0 or 1 for characterising the output

b = numeral 1, 3, 4 or 9 for design

f = numeral 0, 1 or 3 for characterising the line fault detection

c = numeral 1 or 8 for characterising the input

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} [V]	I _{max} [mA]	P _{max} [W]
9160	for 2-wire transmitter	27.0	87.9	574	2.3 mH	14 mH	90 nF	705 nF	-	-	-
	for 3-wire transmitter	27.0	88.3	574	2.3 mH	14 mH	90 nF	705 nF	-	-	-
	9160/14-1*-1*	27.0	112.5	731	0.31 mH	9.2 mH	90 nF	705 nF	-	-	-
	for 3-wire transmitter										
	active current source	4.1	≈ 0	≈ 0	1000 mH	1000 mH	100000 nF	100000 nF	30	100	*)
9163	active voltage source	4.1	≈ 0	≈ 0	-	-	-	-	30	*)	*)
	active current source	≈ 0	≈ 0	≈ 0	-	-	-	-	30	150	1

*) determined by internal circuit

Notes:

- For Connections refer to chapter Commissioning of the Operating Instruction ID-No. 91 606 01 31 0 or 91 636 01 31 0.
- 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.
- For Entity concept use the appropriate parameters to ensure the following:
 V_i or $V_{OC} \leq V_{max}$ $C_o, C_a \geq C_i + C_{leads}$ $P_o \leq P_i$
 I_t or $I_{SC} \leq I_{max}$ $L_o, L_a \geq L_i + L_{leads}$
- Electrical apparatus connected to an intrinsically safe system should not use or generate voltages > 250 V (U_{max}).
- 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 or Class I, Division 2, Hazardous (Classified) Location.
- 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.
- 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.
- Ambient temperature: -40°C ... +60°C (any mounting position)
 -40°C ... +70°C (vertical mounting on horizontal DIN rail)

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.

			2007	Date	Name	Certification drawing		Scale
			drawn	04.05.	Einsiedler	Transmitter Supply Unit / Isolating Repeater (HART) Input Type 916*/**-**-1*		none
			checked		Kaiser			Sheet
								1 of 1
03	01.10.14	Bader					Agency	
02	22.10.12	Reistle					FM	
01	13.12.11	Reistle						
Version	Date	Name				Ers. f.	Ers. d.	A4



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