



- Binary input or output with two channels
- For separating intrinsically safe and non-intrinsically safe signal and control circuits
- Can be used up to SIL 2 (IEC/EN 61508)

07 b

MY R. STAHL 9172A



The 9172 series relay module separates intrinsically safe and non-intrinsically safe binary signal and control circuits. To do this, it makes intrinsically safe inputs and outputs available with two channels. Depending on the version, the device has either an intrinsically safe drive or an intrinsically safe output contact, and can therefore be used as an output or input isolator.

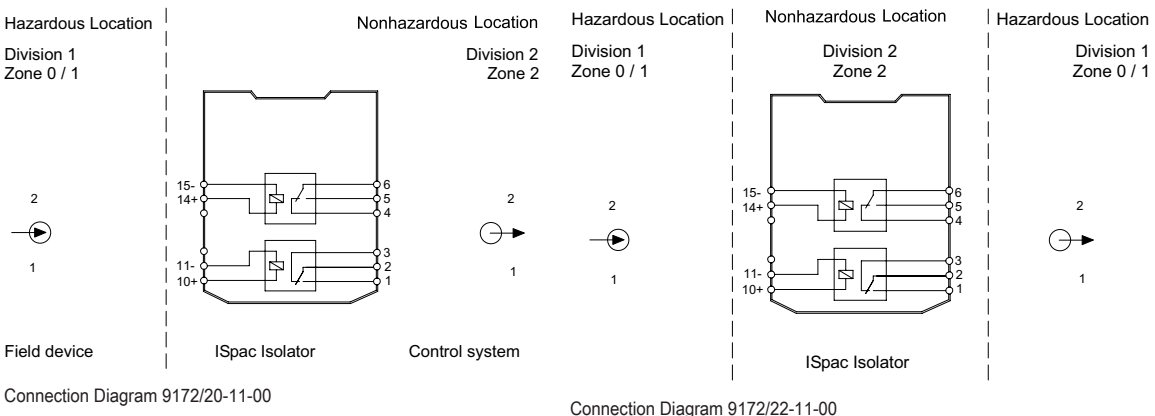
	NEC® 500 CE Code Appendix J						CE Code Section 18 NEC® 505 NEC® 506						IECEX / ATEX							
	Class I		Class II		Class III		Class I			Class I										
Division	1	2	1	2	1	2	Zone	0	1	2	20	21	22	Zone	0	1	2	20	21	22
Ex interface	•	•	•	•	•	•	Ex interface	•	•	•				Ex interface	•	•	•	•	•	•
Installation in		•					Installation in		•				Installation in		•					

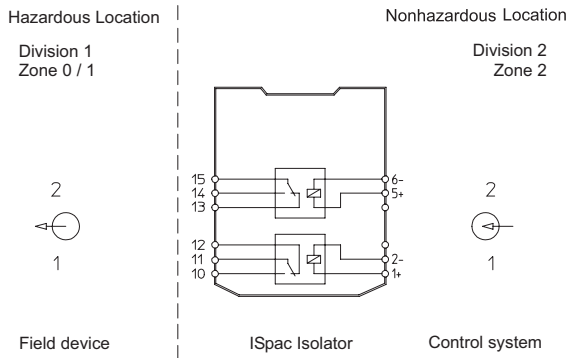
Selection Table						
Input signal			Ex i			
Switching signal input			14.0-30 V			
Number of channels	Output		Connection type		Product Type	
2	Change-over contact - Ex i		Screw terminal		9172/22-11-00s	
	Change-over contact – power relay		Screw terminal		9172/20-11-00s	
			Spring clamp terminal		9172/20-11-00k	
Art. No.	169653		160363		160364	
Weight	190 g		190 g		190 g	
Input			Non-Ex i signal			
Switching signal input			12.0-31.2 V			
Number of channels	Output		Connection type		Product Type	
2	Change-over contact - Ex i		Screw terminal		9172/21-11-00s	
			Spring clamp terminal		9172/21-11-00k	
Art. No.	160369		160370			
Weight	190 g		190 g			

Technical Data		
Variant	Input signal: Ex i	Input signal: Non-Ex i signal
Explosion Protection		
FMus certificate	FM16US0122X	FM16US0122X
cFM certificate	FM16CA0067X	FM16CA0067X
Marking cFMus	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, Group IIC AIS Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 0, [AEx ia]/[Ex ia] IIC T4 at Ta = 70°C See Doc. 91 726 01 31 1	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, Group IIC AIS Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 0, [AEx ia]/[Ex ia] IIC T4 at Ta = 70°C See Doc. 91 726 01 31 1
IECEX gas explosion protection	Ex ec nC [ia Ga] IIC T4 Gc	Ex ec nC [ia Ga] IIC T4 Gc


Technical Data		
Variant	Input signal: Ex i	Input signal: Non-Ex i signal
Explosion Protection		
IECEx dust explosion protection	[Ex ia Da] IIIC	[Ex ia Da] IIIC
Installation	in Zone 2, Division 2 and in the safe area	in Zone 2, Division 2 and in the safe area
Further information	see respective certificate and operating instructions	see respective certificate and operating instructions
Certificates	ATEX (BVS), Canada (FM), China (NEPSI), IECEx (BVS), India (PESO), SIL (exida), USA (FM)	ATEX (BVS), Canada (FM), China (NEPSI), IECEx (BVS), India (PESO), SIL (exida), USA (FM)
Ship approval	CCS, EU RO MR (DNV)	CCS, EU RO MR (DNV)
Safety Data		
Max. voltage U_i	30 V	
Max. current I_i	150 mA	
Max. power P_i	1.3 W	
Internal capacitance	Negligible	
Internal inductance	Negligible	
Safety-related max. voltage	253 V	253 V
Functional Safety		
SIL	2	2
Auxiliary Power		
Max. power dissipation	0.4 W	0.4 W
Auxiliary power	without	without
Ambient Conditions		
Ambient temperature °F	-4 °F ... +158 °F (Single device) -4 °F ... +140 °F (Group assembly)	-4 °F ... +158 °F (Single device) -4 °F ... +140 °F (Group assembly)
Ambient temperature °C	-20 °C ... +70 °C (Single device) -20 °C ... +60 °C (Group assembly)	-20 °C ... +70 °C (Single device) -20 °C ... +60 °C (Group assembly)
Storage temperature °F	-40 °F ... +176 °F	-40 °F ... +176 °F
Storage temperature °C	-40 °C ... +80 °C	-40 °C ... +80 °C
Mounting / Installation		
Mounting type	DIN rail NS35/15, NS35/7.5	DIN rail NS35/15, NS35/7.5

Technical Drawings – Subject to Alterations

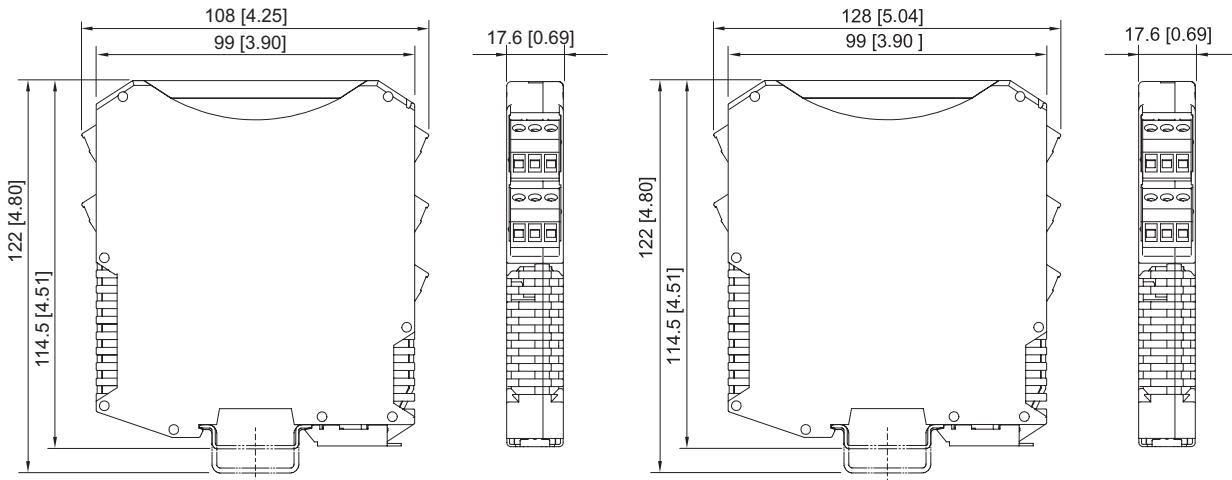




Connection Diagram 9172/21-11-00

Accessories			
Figure	Description	Art. No.	Weight
Transparent cover			
	For 91xx ISpac modules Yellow, transparent Clear identification of the device for SIL applications. (Packaging unit: 10 pieces)	200914	20 g

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



ISpac Series 9143, 9146, 9147, 9160, 9162, 9163, 9165, 9167, 9170, 9172, 9175, 9176, 9180, 9182, 9193, ISbus Series 9412 with screw terminal

ISpac Series 9146, 9147, 9160, 9162, 9163, 9165, 9167, 9170, 9172, 9175, 9176, 9180, 9182, 9193, Fieldbus Power Supply Series 9412 with spring clamp terminal