



- 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					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface	•	•	•	•	•	•
Installation in		•				

	CE Code Section 18					
	NEC® 505			NEC® 506		
	Class I					
Zone	0	1	2	20	21	22
Ex interface	•	•	•			
Installation in			•			

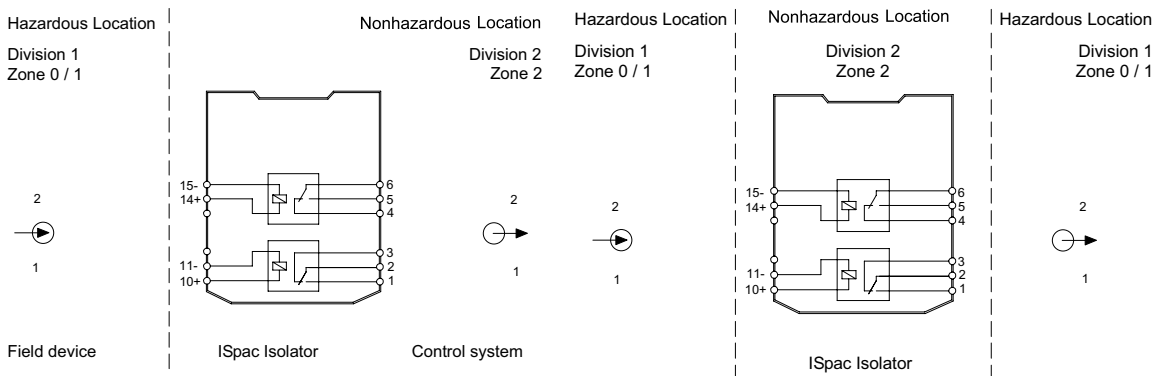
	IECEx / ATEX					
	0	1	2	20	21	22
Zone						
Ex interface	•	•	•	•	•	•
Installation in			•			

Selection Table							
Input signal Switching signal input		Ex i 14 – 30 V					
Number of channels	Output	Connection type	Product Type	Art. No.	Weight lb		
2	Change-over contact - Ex i	Screw terminal	9172/22-11-00s	169653	0.42 lb		
		Change-over contact – power relay	Screw terminal	9172/20-11-00s	160363	0.42 lb	
			Spring clamp terminal	9172/20-11-00k	160364	0.42 lb	
Input Switching signal input		Non-Ex i signal 12 – 31.2 V					
Number of channels	Output	Connection type	Product Type	Art. No.	Weight lb		
2	Change-over contact - Ex i	Screw terminal	9172/21-11-00s	160369	0.42 lb		
		Spring clamp terminal	9172/21-11-00k	160370	0.42 lb		

Technical Data		
Variant	Input signal: Ex i	Input signal: Non-Ex i signal
Explosion Protection		
FMus certificate	FM16US0122X	FM16US0122X
cFM certificate	FM16CA0067X	FM16CA0067X

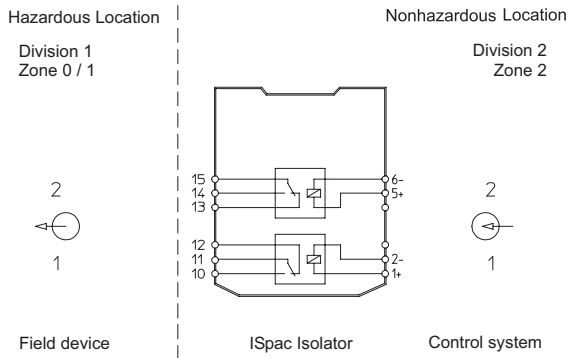
Technical Data		
Variant	Input signal: Ex i	Input signal: Non-Ex i signal
Explosion Protection		
Marking cFMus	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, Group IIC AIS Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 0, [AEx ia]/[Ex ia] IIC T4 at Ta = 70°C See Doc. 91 726 01 31 1	Class 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
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		
Auxiliary power	without	without
Max. power dissipation	0.4 W	0.4 W
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 9172/20-11-00

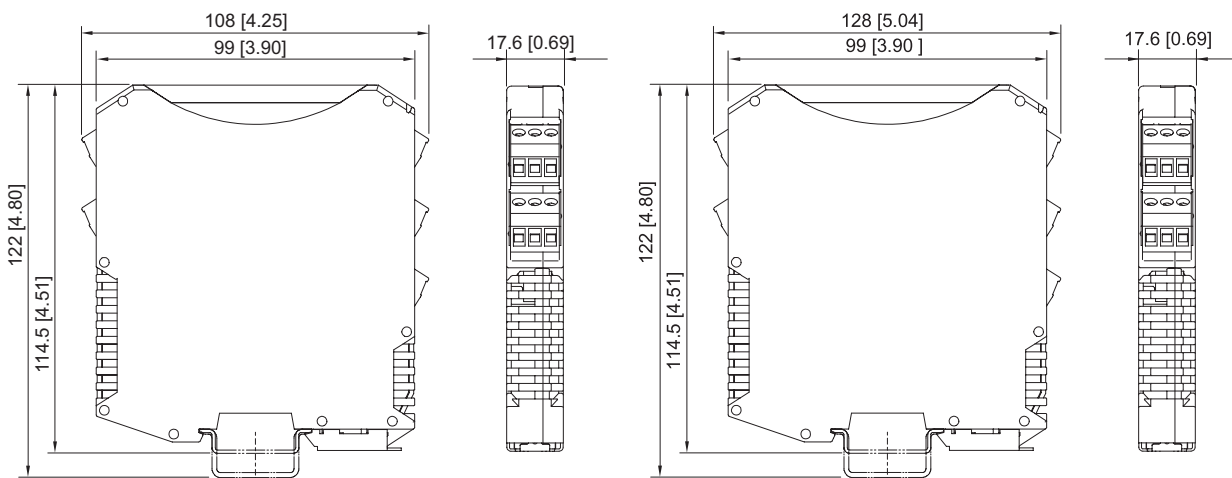
Connection Diagram 9172/22-11-00



Connection Diagram 9172/21-11-00

Accessories				
Figure	Description	Product Type	Art. No.	Weight lb
	For 91xx ISpac modules Yellow, transparent Clear identification of the device for SIL applications. (Packaging unit: 10 pieces)	cover 17,6 yellow transparent	200914	0.04

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