



- Universal use for transmitters and mA sources (4-wire transmitters) with two configurable limit values and one 4 to 20 mA output
- Bidirectional HART transmission
- Can be used up to SIL 2 (IEC/EN 61508)

07 b

WebCode 9162A



9162 series Ex i transmitter power supply units with limit values can be used for the intrinsically safe operation of two- and three-conductor transmitters or for connecting to intrinsically safe mA sources. Two limit values can be easily set using the “ISpac Wizard” software. If the value exceeds or falls below these limit values, these units will issue an alert. A wire-breakage and short-circuit monitoring system provides increased availability.

	NEC® 500 CEC Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface	•	•	•	•	•	•
Installation in		•				

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

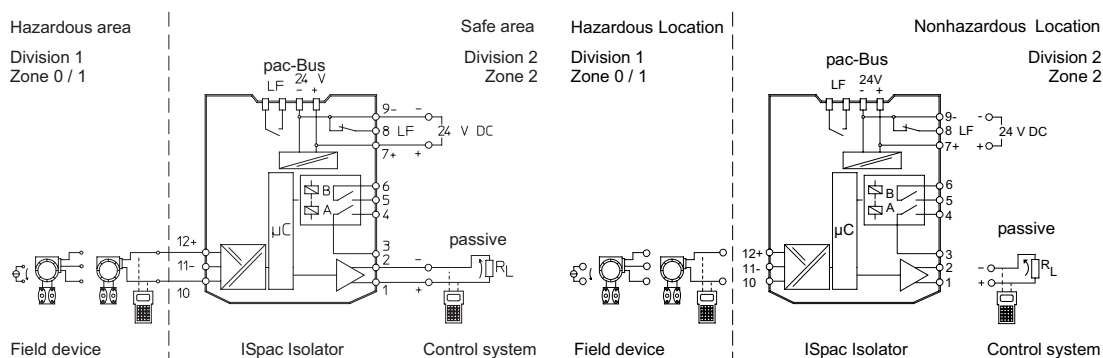
	IECEX / ATEX					
	Zone	0	1	2	20	21
Ex interface	•	•	•	•	•	•
Installation in			•			

Selection Table						
Number of channels	1					
Input	Output	Limit contact (per channel)	Connection type	Product Type	Art. No.	Weight lb
4 ... 20 mA with HART	4 ... 20 mA with HART	2 NOs	Screw terminal	9162/13-11-14s	238251	0.5
Further versions on the Internet r-stahl.com.						

Technical Data	
Explosion Protection	
Certificate FMus	FM16US0122X
Certificate cFM	FM16CA0067X
Marking cFMus	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, nA nC Group IIC AIS Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 0, [Ex ia] IIC T4 at Ta = 70°C See Doc. 9162 6 031 001 1
IECEX gas explosion protection	Ex nA nC [ia Ga] IIC T4 Gc
IECEX dust explosion protection	[Ex ia Da] IIIC
Certificates	ATEX (BVS), Canada (FM), IECEX (BVS), India (PESO), SIL (exida), USA (FM)
Ship approval	CCS, EU RO MR
Safety Data	
Max. voltage U_0/V_{oc}	27 V

Technical Data	
Safety Data	
Max. current I_{Lsc}	87.9 mA
Max. power P_o	574 mW
Safety-related maximum voltage	253 V
Functional Safety	
SIL	2
Electrical Data	
Limiting values configuration	using ISpac wizard (V3.04 and following)
Auxiliary Power	
Auxiliary power	24 V DC
Nominal current	85 mA
Input	
Input	4 ... 20 mA with HART
Supply voltage for transmitter	≥ 16 V at 20 mA
Line fault and loss of power signalization	Contact (30 V / 100 mA) closed to ground in case of fault pac-Bus, floating contact (30 V / 100 mA)
Output	
Output signal	4 ... 20 mA with HART
Load resistance R_L	0 ... 600 Ω (terminal 1+ / 2-)
Switching voltage limiting values	$\leq \pm 30$ V
Switching current limiting values	≤ 170 mA
Ambient Conditions	
Ambient temperature °F	-40 °F ... +158 °F (Single device) -40 °F ... +140 °F (Group assembly)
Ambient temperature °C	-40 °C ... +70 °C (Single device) -40 °C ... +60 °C (Group assembly)
Storage temperature °F	-40 °F ... +176 °F
Storage temperature °C	-40 °C ... +80 °C
Mounting / Installation	
Mounting type	NS35/15, NS35/7.5 DIN rail


Technical Drawings – Subject to Alterations





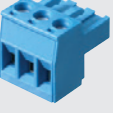



Connection diagram 9162/13-11-14

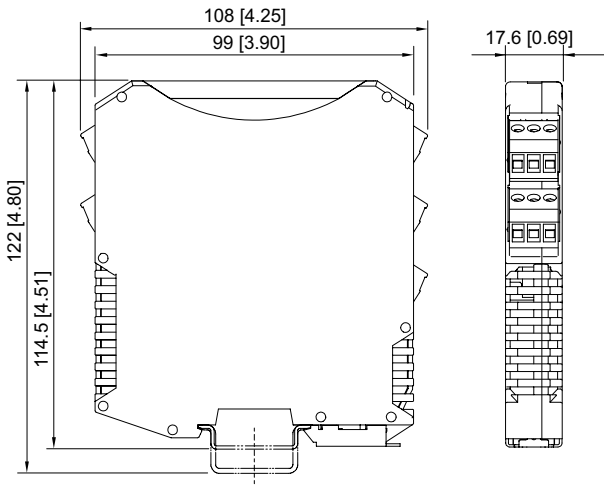
Connection diagram 9162/13-11-14

Accessories

Figure	Description	Art. No.	Weight lb
Parameterization set ISpac - Wizard			
	<p>The software serves for commissioning, configuring and diagnosing the ISpac isolators Series 9146, 9162, 9182 and 9282. For further information, see operating instructions.</p> <p>Form of delivery: USB stick; parameterization software incl. parameterization cable / adaptor</p> <p>System requirements: IBM compatible PC with MS XP, Vista, Windows 7, 10 RS 232 C interface RS 232 / USB adaptor</p>	202595 ▲	0.52

Spare Parts

Figure	Description	Art. No.	Weight lb
Screw terminal			
	<p>3-pole plug, screw connector</p> <p>thread: M3</p> <p>stripping length: 7 mm</p> <p>color: green</p>	112817	0.01
	<p>3-pole plug, screw connector</p> <p>thread: M3</p> <p>stripping length: 7 mm</p> <p>color: black</p>	112816	0.01
	<p>3-pole plug, screw connector</p> <p>thread: M3</p> <p>stripping length: 7 mm</p> <p>color: blue</p>	112818	0.01
Spring clamp terminal			
	<p>3-pole plug with test tap, spring clamp connection</p> <p>stripping length: 10 mm</p> <p>color: green</p>	112825	0.01
	<p>3-pole plug with test tap, spring clamp connection</p> <p>stripping length: 10 mm</p> <p>color: black</p>	112824	0.01
	<p>3-pole plug with test tap, spring clamp connection</p> <p>stripping length: 10 mm</p> <p>color: blue</p>	112826	0.01



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