



- Ex i temperature transmitter, can be configured for virtually any common sensor type
- Broad range, including variants with signal conversion and trip amplifier function
- Variants for SIL 2 applications available

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MY R. STAHL 9182A



9182 series Ex i temperature transmitters for field circuits can be used to connect temperature sensors and potentiometers. They are easy to configure for virtually any sensor type by means of software or a DIP switch. These sensor types include Pt100 sensors, thermocouples and potentiometers. Variants with a trip amplifier function allow the input signal to be analysed using two independent contacts.

	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							
Output		0/4 to 20 mA active/source					
Number of channels	Limit contact (per channel)	Load resistance R_L	SIL	Connection type	Product Type	Art. No.	Weight lb
1	2 NO/NC	0 ... 750 Ω	2	Screw terminal	9182/10-51-14s	201682	0.37 lb
		0 ... 750 Ω	2	Spring clamp terminal	9182/10-51-14k	201683	0.37 lb
	without	0 ... 750 Ω	–	Screw terminal	9182/10-51-11s	160546	0.43 lb
		0 ... 750 Ω	–	Spring clamp terminal	9182/10-51-11k	160547	0.43 lb
2	without	0 ... 600 Ω	–	Screw terminal	9182/20-51-11s	160541	0.43 lb
		0 ... 600 Ω	–	Spring clamp terminal	9182/20-51-11k	160544	0.43 lb
Output		without					
Number of channels	Limit contact (per channel)	Load resistance R_L	SIL	Connection type	Product Type	Art. No.	Weight lb
2	2 NO/NC	–	–	Screw terminal	9182/20-50-12s	160552	0.43 lb

Signal duplication due to parallel connection of inputs (dual-channel version 9182/2). Further information see operating instruction.

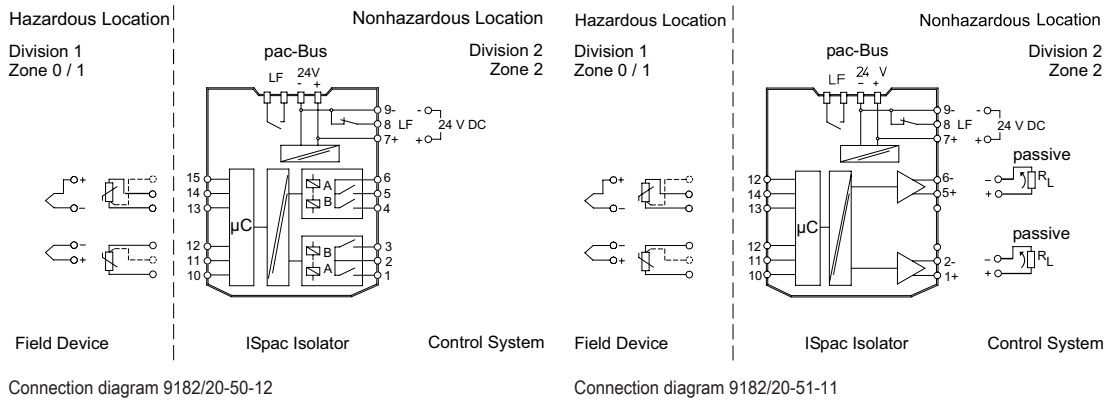
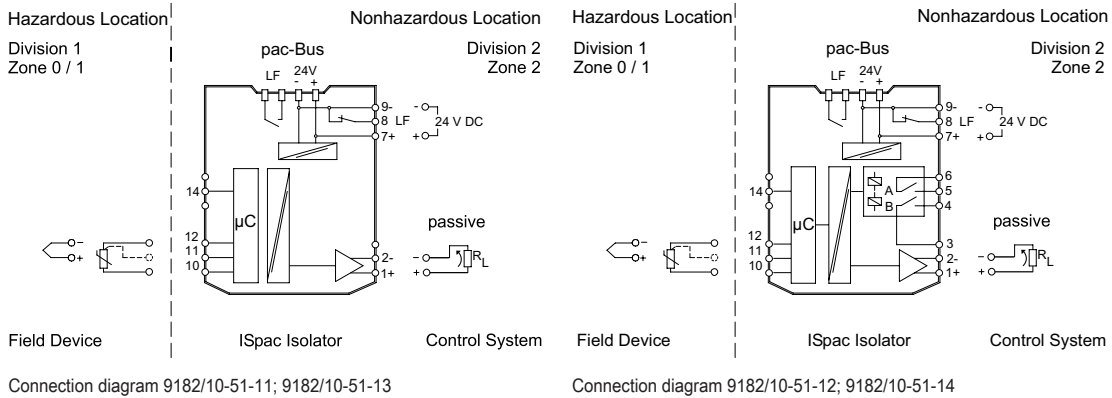
Parameterisation ex works optionally available for all variants. Art. No. 270433

Technical Data		
Variant	9182/0-51-1.	9182/20-50-12
Explosion Protection		
FMus certificate	FM16US0122X	FM16US0122X
cFM certificate	FM16CA0067X	FM16CA0067X
cFM certificate	FM16CA0067X	FM16CA0067X

Technical Data		
Variant	9182/0-51-1	9182/20-50-12
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/Ex ia] [AEx ia]/ T4 at Ta = 70°C See Doc. 91 826 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/Ex ia] [AEx ia]/ T4 at Ta = 70°C See Doc. 91 826 01 31 1
Certificate ULus	E81680	E81680
Marking ULus	providing intrinsically safe circuits for use in Class I,II,III, GROUPS A,B,C,D,E,F,G; See Doc. 91 826 01 31 3	providing intrinsically safe circuits for use in Class I,II,III, GROUPS A,B,C,D,E,F,G; See Doc. 91 826 01 31 3
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
Certificates	ATEX (BVS), Brazil (ULB), Canada (FM), China (NEPSI), IECEx (BVS), India (PESO), Korea (KTL), USA (FM), USA (UL)	ATEX (BVS), Brazil (ULB), Canada (FM), China (NEPSI), IECEx (BVS), India (PESO), Korea (KTL), USA (FM), USA (UL)
Ship approval	CCS, EU RO MR (DNV)	CCS, EU RO MR (DNV)
Safety Data		
Max. voltage U_j/V_{oc}	6.5 V	6.5 V
Max. current I_j/I_{sc}	19.7 mA	19.7 mA
Max. power P_o	32 mW	32 mW
Safety-related max. voltage	253 V	253 V
Auxiliary Power		
Auxiliary power	24 V DC	24 V DC
Input		
Potentiometer input	Up to 100 kΩ	
Input RTD	Types Pt 100, Pt 500, Pt 1000, Pt 2000, Ni 100, Ni 500, Ni 1000, M50, M53, M100	
Input resistance temperature detector (RTD) Connection type	2-, 3- and 4-wire circuit	
Input thermocouple	Types B, E, J, K, N, R, S, T, L, U, XK	
Output		
Output	0/4 to 20 mA active/source	without
Switching voltage limiting values		≤ ± 30 V
Switching current limiting values		≤ 100 mA
Line fault and loss of power signalization	- Contact (30 V/100 mA), closed against earth in case of error - pac-Bus, potential-free contact (30 V/100 mA)	- Contact (30 V/100 mA), closed against earth in case of error - pac-Bus, potential-free contact (30 V/100 mA)
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

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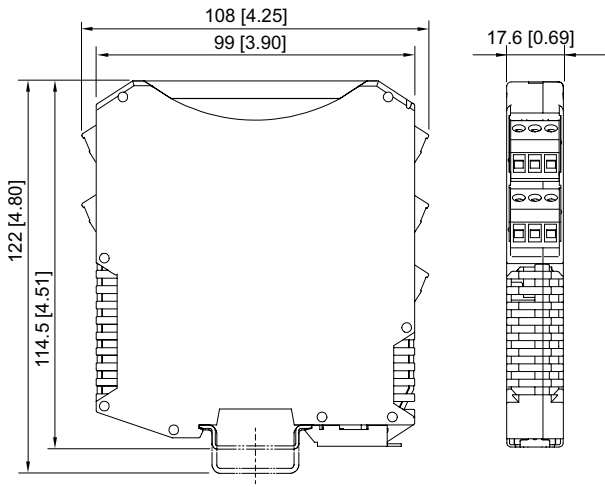
Accessories

Figure	Description	Product Type	Art. No.	Weight lb
Parameterization set ISpac - Wizard				
	The software serves for commissioning, configuring and diagnosing the ISpac isolators Series 9146, 9162, 9182 and 9282. For further information, see operating instructions. Form of delivery: USB stick; parameterization software incl. parameterization cable / adaptor System requirements: IBM compatible PC with MS XP, Vista, Windows 7, 10 RS 232 C interface RS 232 / USB adaptor	9199/20-02 set for parameterization ispa	202595	0.52
External reference junction				
	External reference junction for 2 x thermocouple (1 x Pt100 for 2-, 3- or 4-wire connection) integrated into the 4-pin terminal block. Mounted on a DIN rail.	9191/VS-04	160675	0.07
	External reference junction for 1 x thermocouple (Pt100 in 2-wire connection) integrated into the pluggable terminal (3-pin). Mounted in the ISpac device instead of the standard connection terminal.	9191/VS-05	160676	0.07

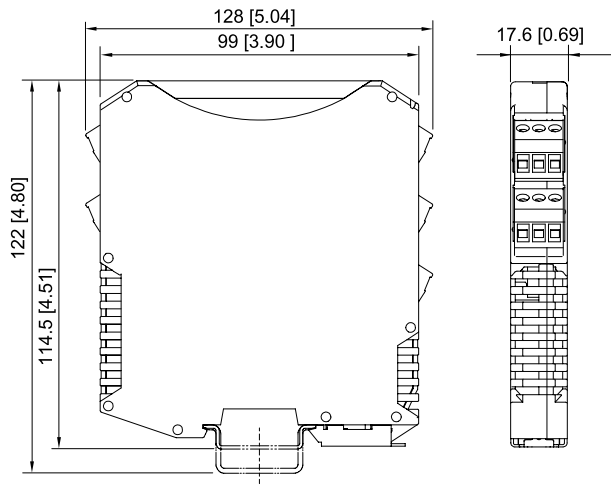
Spare Parts				
Figure	Description	Product Type	Art. No.	Weight lb
Screw terminal				
	3-pole plug, screw connector thread: M3 stripping length: 7 mm color: green	Terminal block 3-pole green	112817	0.01
	3-pole plug, screw connector thread: M3 stripping length: 7 mm color: black	Terminal block 3-pole black	112816	0.01
	3-pole plug, screw connector thread: M3 stripping length: 7 mm color: blue	Terminal block 3-pole blue	112818	0.01
Screw terminal with test tap				
	3-pole plug with test tap, screw connector thread: M3 stripping length: 7 mm colour: black	Terminal block 3-pole black Screwable co	113005	0.01
	3-pole plug with test tap, screw connector thread: M3 stripping length: 7 mm colour: blue	Terminal block 3-pole blue Screwable con	113004	0.01
Spring clamp terminal				
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm color: green	terminal block 3-pole green spring force	112825	0.01
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm color: black	terminal block 3-pole black spring force	112824	0.01
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm color: blue	terminal block 3-pole blue spring force	112826	0.01

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

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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