



- 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

07 b

WebCode **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 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 NEC® 506					
	Class I			Class II		
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 ... 20 mA active / source					
Number of channels	Limit contact (per channel)	Load resistance R _L max.	SIL	Connection type	Product Type	Art. No.	Weight lb
1	2 NO / NC	750 Ω	2	Screw terminal	9182/10-51-14s	201682	0.37
	Without	750 Ω	–	Screw terminal	9182/10-51-11s	160546 ▲	0.43
	Without	750 Ω	2	Screw terminal	9182/10-51-13s	201653	0.37
2	Without	600 Ω	–	Screw terminal	9182/20-51-11s	160541 ▲	0.43
Output		Without					
Number of channels	Limit contact (per channel)	Load resistance R _L max.	SIL	Connection type	Product Type	Art. No.	Weight lb
2	2 NO / NC	–	–	Screw terminal	9182/20-50-12s	160552	0.43

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

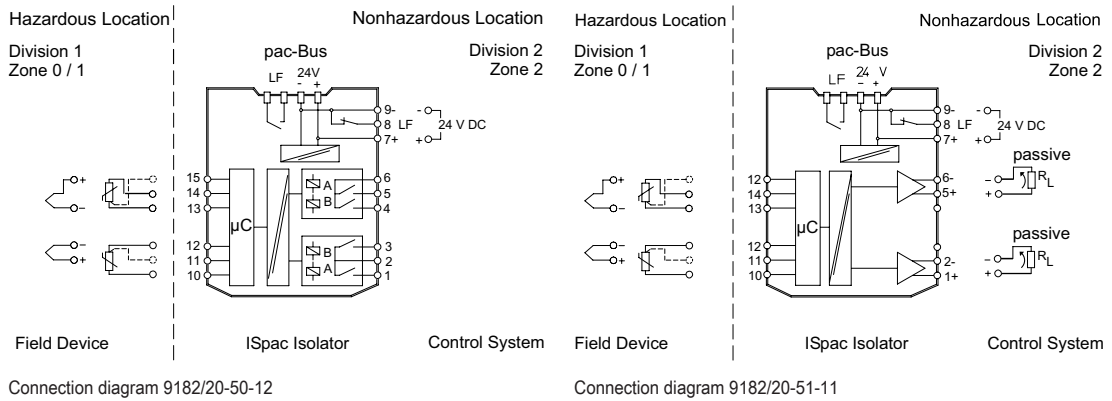
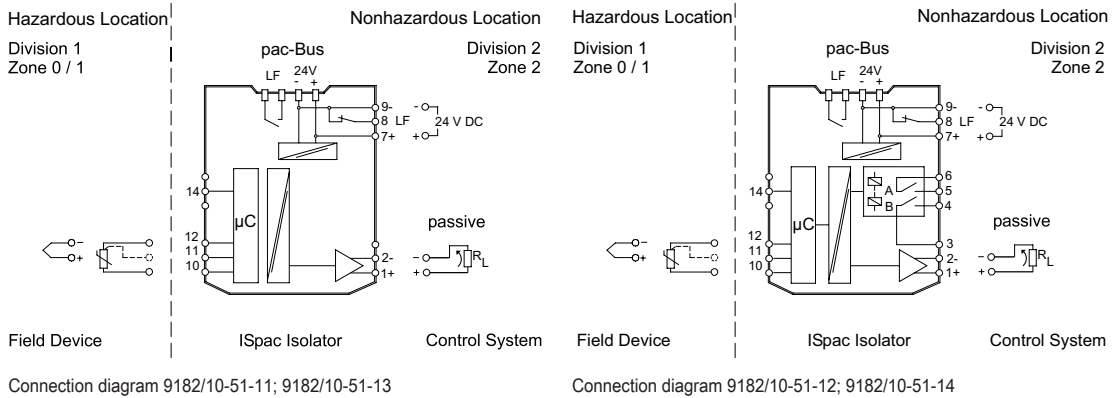
Further versions on the Internet r-stahl.com.

Technical Data		
Variant	9182/0-51-1.	9182/20-50-12
Explosion Protection		
Certificate FMus	FM16US0122X	FM16US0122X
Certificate cFM	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 ia]/[Ex ia] IIC 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 ia]/[Ex ia] IIC T4 at Ta = 70°C See Doc. 91 826 01 31 1
Certificate ULus	E81680	E81680
Marking ULus	prov. intr. safe circ. f.u.in Class I,II,III, GROUPS A,B,C,D,E,F,G; See Doc. 91 826 01 31 3	prov. intr. safe circ. f.u.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 nA nC [ia Ga] IIC T4 Gc	Ex nAc nCc [ia] IIC T4 Gc
IECEX dust explosion protection	[Ex ia Da] IIIC	[Ex ia] IIIC
Certificates	ATEX (BVS), Brazil (ULB), Canada (FM), EAC (ENDCE), IECEx (BVS), India (PESO), Korea (KTL), Russia (Meteorological certificate), SIL (exida), USA (FM), USA (UL)	ATEX (BVS), Brazil (ULB), Canada (FM), EAC (ENDCE), IECEx (BVS), India (PESO), Korea (KTL), Russia (Meteorological certificate), SIL (exida), USA (FM), USA (UL)
Ship approval	CCS, EU RO MR	CCS, EU RO MR
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 maximum voltage	253 V	253 V
Auxiliary Power		
Auxiliary power	24 V DC	24 V DC
Input		
Input potentiometer	up to 100 kΩ	
Input resistance temperature detector (RTD)	Types Pt 100, Pt 500, Pt 1000, Ni 100, Ni 500, Ni 1000	
Input resistance temperature detector (RTD) Connection type	2-, 3-, 4-wire circuit	
Input thermocouple	Types B, E, J, K, N, R, S, T, L, U, XK	
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	0/4 ... 20 mA active / source	Without
Switching voltage limiting values		≤ ± 30 V
Switching current limiting values		≤ 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	NS35/15, NS35/7.5 DIN rail	NS35/15, NS35/7.5 DIN rail

Technical Drawings – Subject to Alterations







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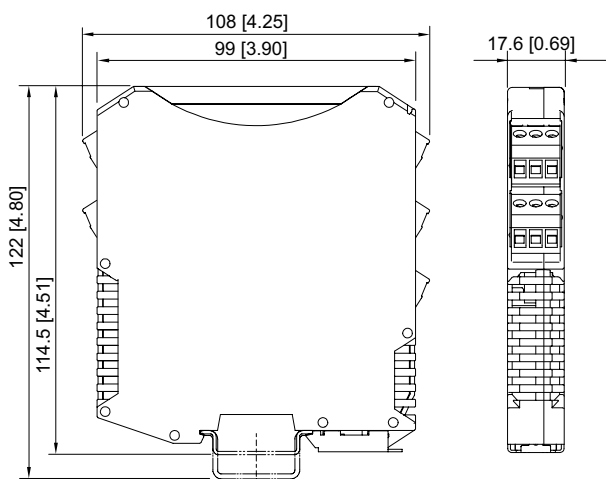


Accessories

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	-	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-pole terminal block. Installation takes place on the DIN rail.	9191/VS-04	160675 ▲	0.07
	External reference junction for 1 x thermocouple (Pt100 in 2 wire connection) integrated into the plug-gable terminal (3-pole). Installation takes place in the ISpac device instead of the standard terminal.	9191/VS-05	160676 ▲	0.07

Spare Parts

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

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


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