



- Ex i resistance isolator 9180/.0 for Pt100 or 9180/.1 for Pt1000
- World's only two-channel device requiring just 8.8 mm of space per channel
- For two-, three- and four-conductor connection

07 b

MY R. STAHL 9180A



9180 series Ex i resistance isolators can be used for the intrinsically safe operation of Pt100 (9180/.0) or Pt1000 (9180/.1) resistance temperature detectors. The resistance measured at the input is transmitted to the output and can thereby be measured by an I/O card. The auxiliary power, output and intrinsically safe input are galvanically separated.

	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			•			

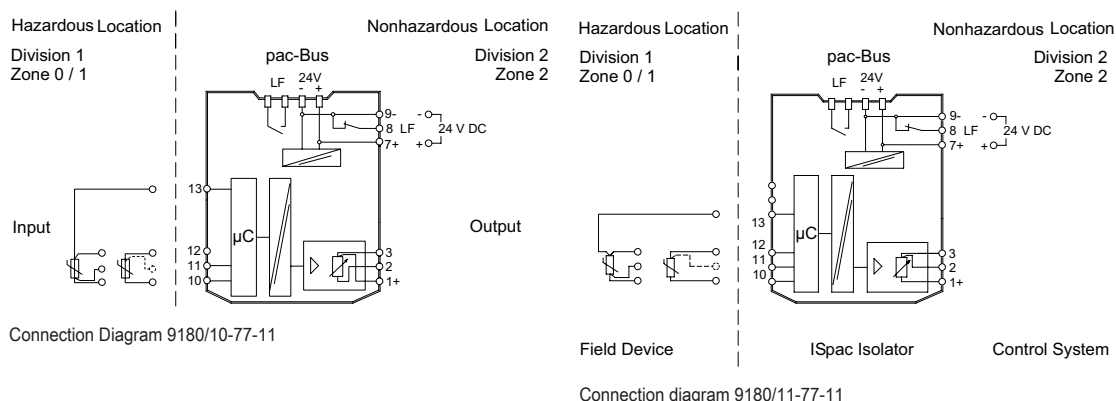
	IECEX / ATEX					
Zone	0	1	2	20	21	22
Ex interface	•	•	•	•	•	•
Installation in			•			

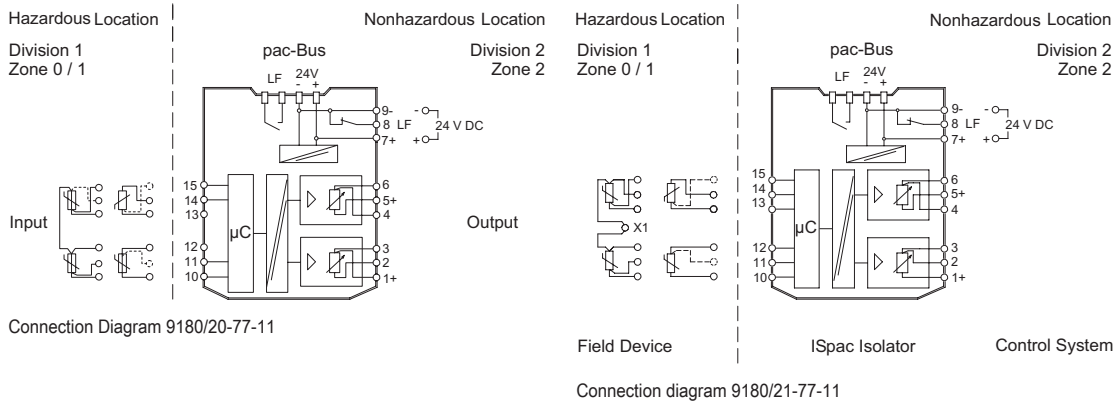
Selection Table						
Number of channels	1					
Measuring range	Medium resolution input	Input for resistance temperature detector	Connection type	Product Type	Art. No.	Weight
18 to 391 Ω	0.02 Ω	Pt 100	Screw terminal	9180/10-77-11s	160491 ▲	160 g
		Pt 100	Spring clamp terminal	9180/10-77-11k	160492	160 g
180 to 3910 Ω	0.2 Ω	Pt 1000	Screw terminal	9180/11-77-11s	160499	160 g
Number of channels	2					
Measuring range	Medium resolution input	Input for resistance temperature detector	Connection type	Product Type	Art. No.	Weight
18 to 391 Ω	0.02 Ω	Pt 100	Screw terminal	9180/20-77-11s	160494 ▲	180 g
		Pt 100	Spring clamp terminal	9180/20-77-11k	160495	180 g
180 to 3910 Ω	0.2 Ω	Pt 1000	Screw terminal	9180/21-77-11s	160502	180 g
		Pt 1000	Spring clamp terminal	9180/21-77-11k	160503	180 g

Technical Data	
Explosion Protection	
FMus certificate	FM16US0122X
cFM certificate	FM16CA0067X
Marking cFMus	Class I, Div. 2, Groups A,B,C,D; Class I, Zone 2, AEx/Ex nA nC 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. 9180 6 031 001 1

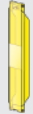
Technical Data	
Explosion Protection	
IECEX gas explosion protection	Ex ec nC [ia Ga] IIC T4 Gc
IECEX dust explosion protection	[Ex ia Da] IIIC
Certificates	ATEX (BVS), Brazil (ULB), Canada (FM), China (NEPSI), IECEX (BVS), India (PESO), Korea (KTL), USA (FM)
Ship approval	CCS, EU RO MR (DNV)
Safety Data	
Max. voltage U_j/V_{oc}	6.5 V
Max. current I_j/I_{sc}	16.5 mA
Max. power P_o	27 mW
Safety-related max. voltage	253 V
Auxiliary Power	
Auxiliary power	24 V DC
Input	
Input RTD	2-, 3- and 4-wire circuits
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	Equal to input signal (resistance value)
Settling time output	< 10 ms
Response time output	< 1 s
Ambient Conditions	
Ambient temperature °F	-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)
Storage temperature °F	-40°F ... +176°F
Storage temperature °C	-40 °C ... +80 °C
Mounting / Installation	
Mounting type	DIN rail NS35/15, NS35/7.5

Technical Drawings – Subject to Alterations











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

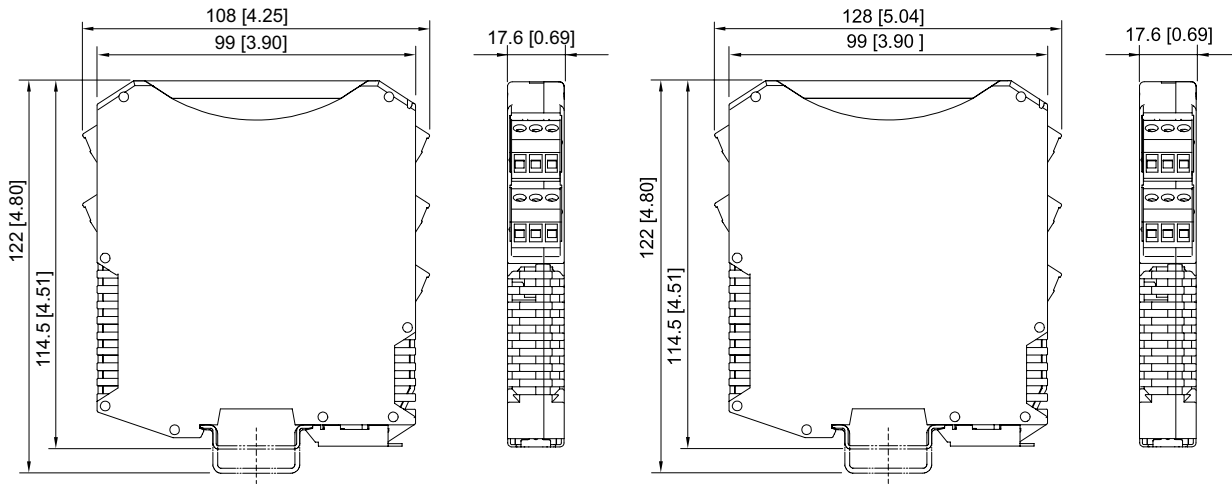
Spare Parts

Figure	Description	Art. No.	Weight
Spring clamp terminal			
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm color: blue	112826	5 g
Screw terminal			
	3-pole plug, screw connector thread: M3 stripping length: 7 mm color: black	112816	4 g
	3-pole plug, screw connector thread: M3 stripping length: 7 mm color: blue	112818	5 g
	3-pole plug, screw connector thread: M3 stripping length: 7 mm color: green	112817	5 g
Screw terminal with test tap			
	3-pole plug with test tap, screw connector thread: M3 stripping length: 7 mm color: blue	113004	1 g
	3-pole plug with test tap, screw connector thread: M3 stripping length: 7 mm color: black	113005	1 g

Spare Parts

Figure	Description	Art. No.	Weight
Spring clamp terminal			
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm color: green	112825	5 g
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm color: black	112824	5 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