



- 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			•			

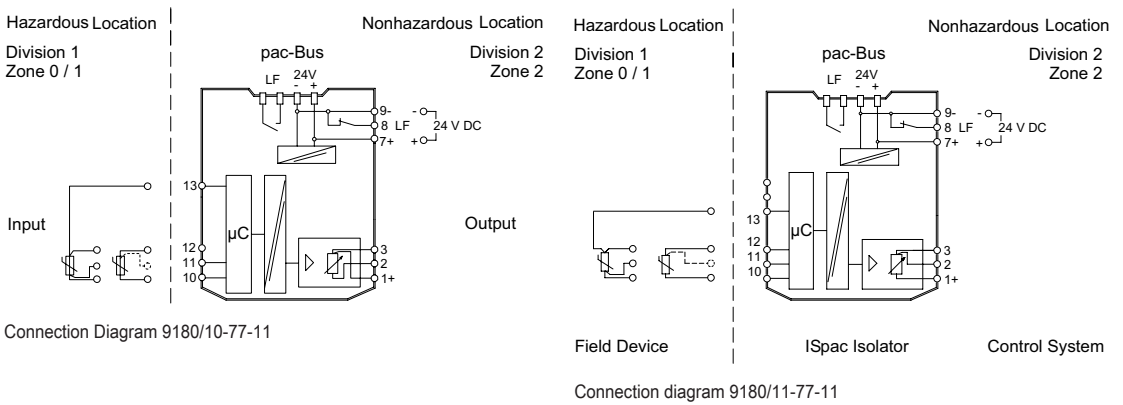
	IECEX / ATEX					
Zone	0	1	2	20	21	22
Ex interface	•	•	•	•	•	•
Installation in			•			

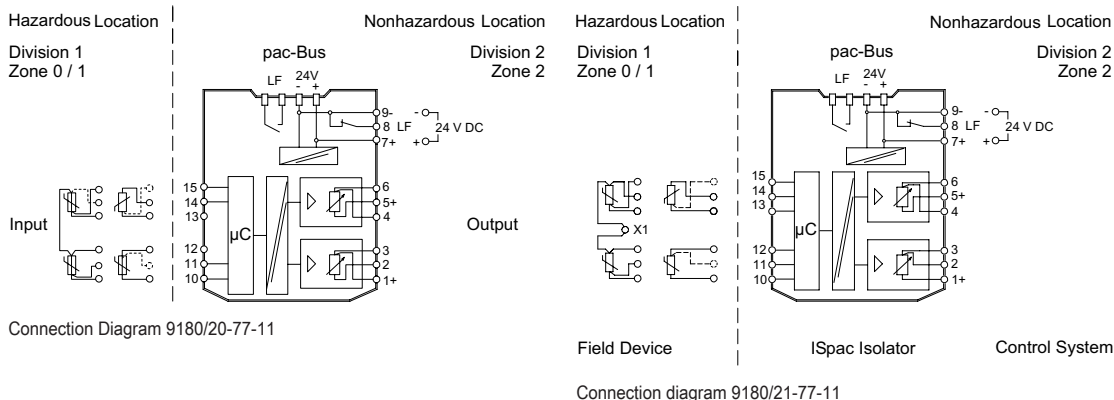
Selection Table						
Number of channels	1					
Measuring range	Medium-resolution input	Input for resistance temperature detector	Connection type	Product Type	Art. No.	Weight lb
18 to 391 Ω	0.02 Ω	Pt 100	Screw terminal	<b>9180/10-77-11s</b>	160491	0.35 lb
		Pt 100	Spring clamp terminal	<b>9180/10-77-11k</b>	160492	0.35 lb
180 to 3910 Ω	0.2 Ω	Pt 1000	Screw terminal	<b>9180/11-77-11s</b>	160499	0.35 lb
Number of channels	2					
Measuring range	Medium-resolution input	Input for resistance temperature detector	Connection type	Product Type	Art. No.	Weight lb
18 to 391 Ω	0.02 Ω	Pt 100	Screw terminal	<b>9180/20-77-11s</b>	160494	0.4 lb
		Pt 100	Spring clamp terminal	<b>9180/20-77-11k</b>	160495	0.4 lb
180 to 3910 Ω	0.2 Ω	Pt 1000	Screw terminal	<b>9180/21-77-11s</b>	160502	0.4 lb
		Pt 1000	Spring clamp terminal	<b>9180/21-77-11k</b>	160503	0.4 lb

Technical Data	
Explosion Protection	
FMus certificate	FM16US0122X
cFM certificate	FM16CA0067X
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/Ex ia] [AEx ia]/ T4 at Ta = 70°C See Doc. 9180 6 031 001 1

Technical Data	
<b>Explosion Protection</b>	
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)
<b>Safety Data</b>	
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
<b>Auxiliary Power</b>	
Auxiliary power	24 V DC
<b>Input</b>	
Connection type RTD input	2-, 3- and 4-wire circuits
<b>Output</b>	
Output signal	Equal to input signal (resistance value)
Settling time output	< 10 ms
Response time output	< 1 s
Line fault and loss of power signalization	- Contact (30 V / 100 mA / DC), closed against earth in case of error - pac-Bus, potential-free contact (30 V / 100 mA / DC)
<b>Ambient Conditions</b>	
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
<b>Mounting / Installation</b>	
Mounting type	DIN rail NS35/15, NS35/7.5


**Technical Drawings – Subject to Alterations**



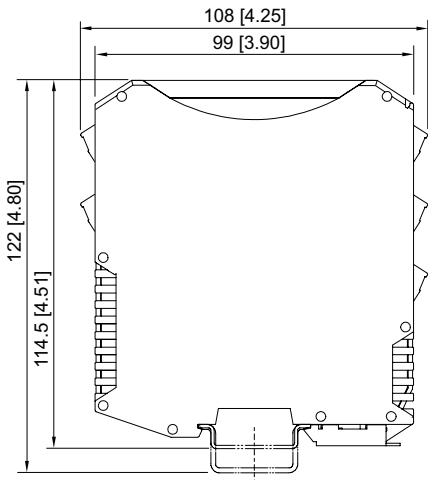


Spare Parts					
Figure	Description	Product Type	Art. No.	Weight lb	
<b>Spring clamp terminal</b>					
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm color: blue	terminal block 3-pole blue spring force	112826	0.01	
<b>Screw terminal</b>					
	3-pole plug, screw connector 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	
	3-pole plug, screw connector thread: M3 stripping length: 7 mm color: green	Terminal block 3-pole green	112817	0.01	
<b>Screw terminal with test tap</b>					
	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	
	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	
<b>Spring clamp terminal</b>					
	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	

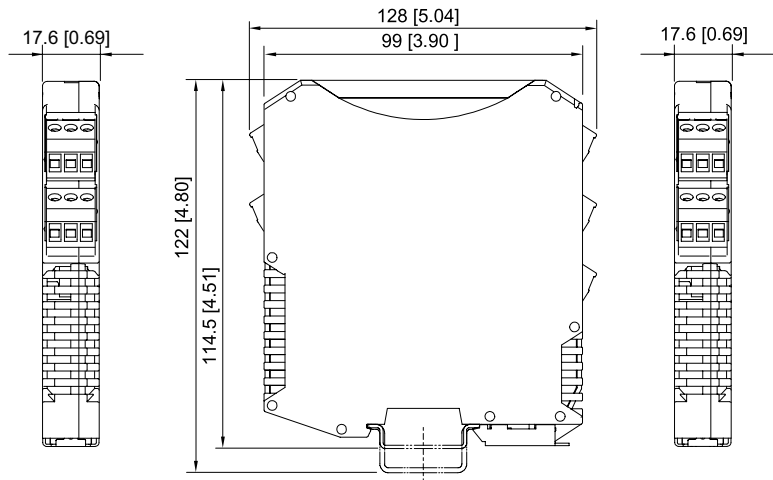
### Spare Parts

Figure	Description	Product Type	Art. No.	Weight lb
	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

### 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