



- Extensive portfolio for all characteristic curves
- Two-channel variants reduce the amount of space required
- For use up to SIL 3 (IEC/EN 61508)

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## MY R. STAHL 9176A



The Series 9176 binary outputs transmit binary signals for the intrinsically safe operation of Ex i solenoid valves, indicator lamps and horns. The devices do not require a separate auxiliary power supply as they are powered by the control circuit. The intrinsically safe outputs are galvanically separated from the inputs. The two-channel variants are characterised by galvanically separated channels.

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

	NEC <sup>®</sup> 500 CE Code Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface	•	•	•	•	•	•
Installation in		•				

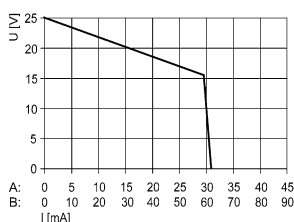
	CE Code Section 18					
	NEC <sup>®</sup> 505			NEC <sup>®</sup> 506		
Zone	Class I			20	21	22
Ex interface	0	1	2			
Ex interface	•	•	•			
Installation in			•			

Selection Table						
Number of channels		1				
Output open-circuit voltage $U_o$	Max. output current $I_o_{max}$	Internal Resistance $R_i$	Connection type	Product Type	Art. No.	Weight
25 V	35 mA	250 $\Omega$	Screw terminal	9176/10-16-00s	222182	170 g
		250 $\Omega$	Spring clamp terminal	9176/10-16-00k	222183	180 g
Number of channels		2				
Output open-circuit voltage $U_o$	Max. output current $I_o_{max}$	Internal Resistance $R_i$	Connection type	Product Type	Art. No.	Weight
25 V	29 mA /58 mA*	320 $\Omega$ /parallel: 160 $\Omega$ *	Screw terminal	9176/20-15-00s	222180	185 g
		320 $\Omega$ /parallel: 160 $\Omega$ *	Spring clamp terminal	9176/20-15-00k	222181	180 g
	35 mA /70 mA*	250 $\Omega$ /parallel: 125 $\Omega$ *	Screw terminal	9176/20-16-00s	222184	185 g
		250 $\Omega$ /parallel: 125 $\Omega$ *	Spring clamp terminal	9176/20-16-00k	222185	180 g

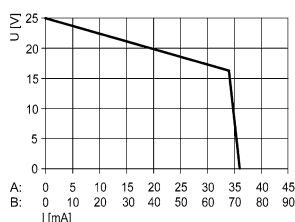
\* Outputs can be connected in parallel, therefore doubling the output current.

Technical Data		
Variant	9176/0-15-00s	9176/0-16-00s
Explosion Protection		
IECEX gas explosion protection	Ex nA [ja Ga] IIC T4 Gc	Ex nA [ja Ga] IIC T4 Gc
IECEX dust explosion protection	[Ex ia Da] IIIC	[Ex ia Da] IIIC
ATEX gas explosion protection	⊕ II 3 (1) G Ex nA [ja Ga] IIC T4 Gc	⊕ II 3 (1) G Ex nA [ja Ga] IIC T4 Gc
ATEX dust explosion protection	⊕ II (1) D [Ex ia Da] IIIC	⊕ II (1) D [Ex ia Da] IIIC

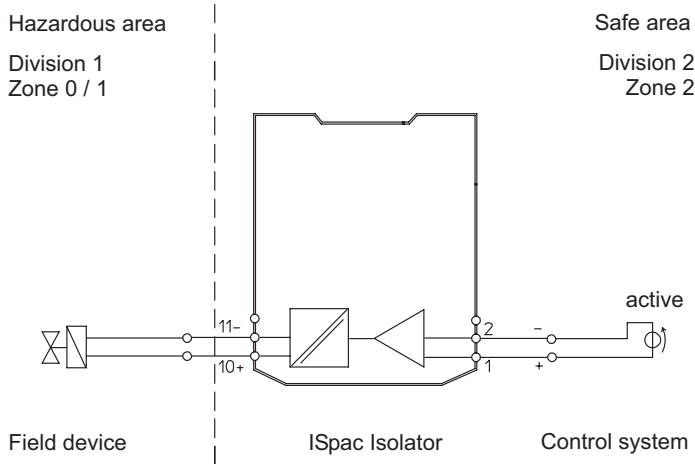
Technical Data		
Variant	9176/0-15-00s	9176/0-16-00s
<b>Explosion Protection</b>		
Certificates	ATEX (BVS), Brazil (ULB), Canada (FM), China (NEPSI), IECEx (BVS), Korea (KTL), SIL (exida), USA (FM)	ATEX (BVS), Brazil (ULB), Canada (FM), China (NEPSI), IECEx (BVS), Korea (KTL), SIL (exida), USA (FM)
Ship approval	CCS, EU RO MR (DNV)	CCS, EU RO MR (DNV)
Declaration of Conformity	ATEX (EUK), China (CCC)	ATEX (EUK), China (CCC)
<b>Safety Data</b>		
Max. voltage $U_o$	27.6 V	27.6 V
Max. current $I_o$ (Ex ia)	86.5 mA	110 mA
Max. current $I_o$ (Ex ib)	44 mA	50 mA
Max. power $P_o$	596 mW	760 mW
Safety-related max. voltage	253 V	253 V
<b>Functional Safety</b>		
SIL	3	3
<b>Auxiliary Power</b>		
Auxiliary power	without	without
<b>Input</b>		
Input voltage for ON	18 – 31.2 V	18 – 31.2 V
Input voltage for OFF	0 – 5 V	0 – 5 V
<b>Output</b>		
Output residual ripple	< 100 mV	< 100 mV
Output switching frequency	≤ 10 Hz	≤ 10 Hz
Switching delay ON/OFF	≤ 50 ms	≤ 50 ms
<b>Ambient Conditions</b>		
Ambient temperature	-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	-40 °C ... +80 °C	-40 °C ... +80 °C
<b>Mounting / Installation</b>		
Mounting type	DIN rail NS35/15, NS35/7.5	DIN rail NS35/15, NS35/7.5

**Technical Drawings – Subject to Alterations**


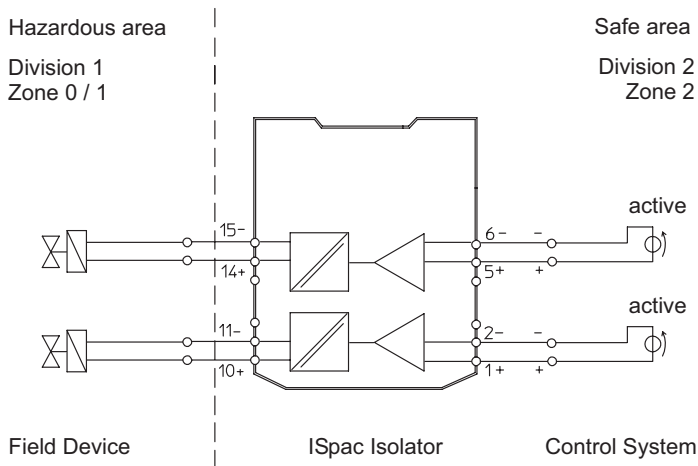
9176/0-15-00 output characteristic



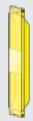
9175/0-16-11; 9176/0-16-00 output characteristic




Connection Diagram Type 9176/10-...-...



Connection Diagram Type 9176/20-...-...

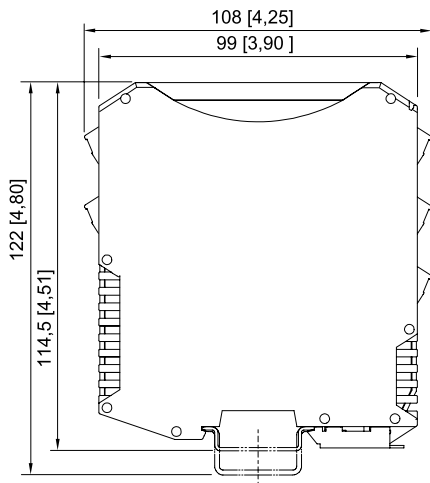
Accessories				
Figure	Description	Art. No.	Weight	
Transparent cover				
	For 91xx ISpac modules Yellow, transparent Clear identification of the device for SIL applications. (Packaging unit: 10 pieces)	200914	20 g	

Spare Parts				
Figure	Description	Art. No.	Weight	
Screw terminal				
	3-pole plug, screw connector thread: M3 stripping length: 7 mm colour: green	112817	5 g	

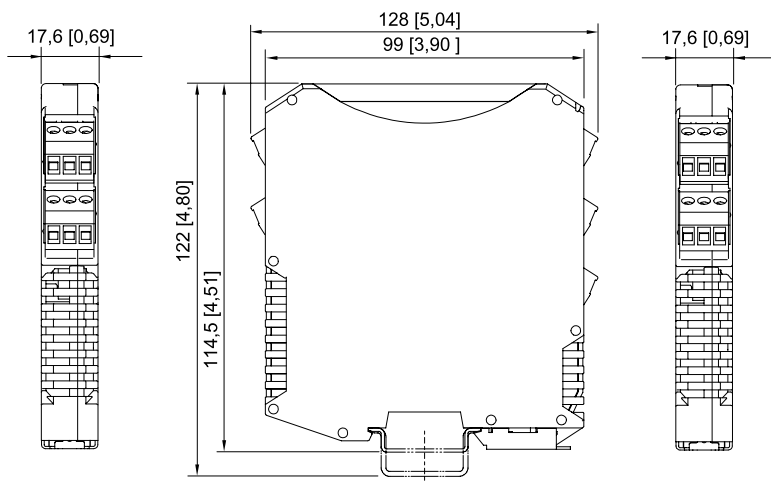
Spare Parts				
Figure	Description	Art. No.	Weight	
<b>Screw terminal</b>				
	3-pole plug, screw connector thread: M3 stripping length: 7 mm colour: black	112816	4 g	
	3-pole plug, screw connector thread: M3 stripping length: 7 mm colour: blue	112818	5 g	
<b>Screw terminal with test tap</b>				
	3-pole plug with test tap, screw connector thread: M3 stripping length: 7 mm colour: black	113005	1 g	
	3-pole plug with test tap, screw connector thread: M3 stripping length: 7 mm colour: blue	113004	1 g	
<b>Spring clamp terminal</b>				
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm colour: green	112825	5 g	
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm colour: black	112824	5 g	
	3-pole plug with test tap, spring clamp connection stripping length: 10 mm colour: blue	112826	5 g	

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, ISbus Series 9412 with spring clamp terminal