Features

- 1-channel signal conditioner
- 24 V DC supply
- Input bipolar current and voltage sources
- Output bipolar current and voltage sources
- Accuracy 0.1 %
- Configurable via DIP switches and potentiometer

Function

This signal conditioner provides the galvanic isolation between field circuits and control circuits.

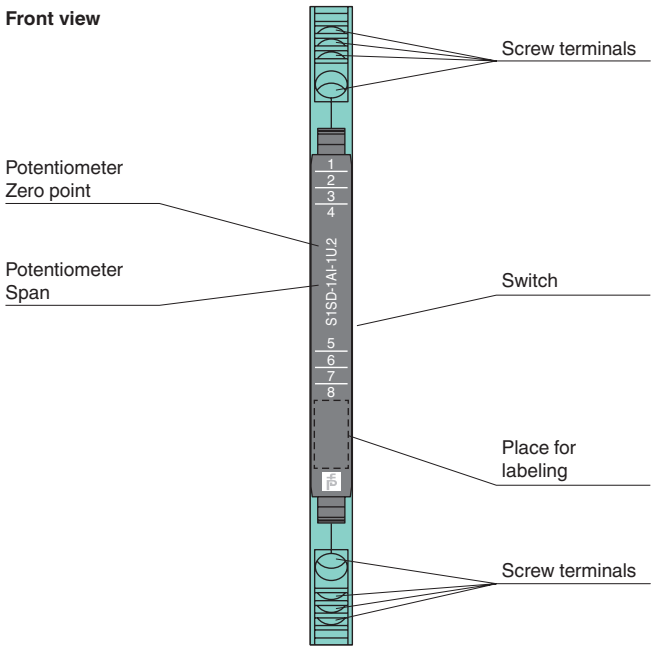
The device has an input for bipolar current and voltage sources.

At the output the signals are available as bipolar current and voltage sources.

The device is easily configured by the use of DIP switches and potentiometers.

The device can be powered via terminals or Power Bus.

Assembly



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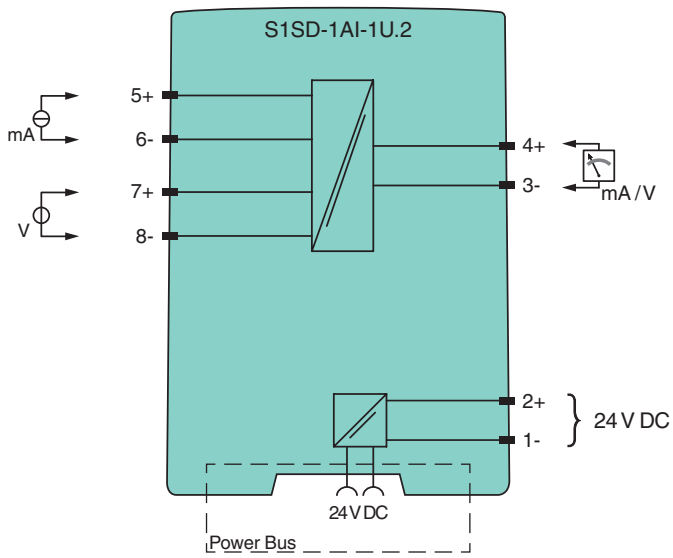
Connection



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General specifications		
Signal type		Analog input
Supply		
Connection		Power Bus or terminals 1-, 2+
Rated voltage	U_n	16.8 ... 31.2 V DC
Power loss		0.6 W
Power consumption		0.8 W
Input		
Transmission range		linearity range: unipolar -1 ... 110 % bipolar -110 ... 110 %
Input I		
Connection		terminals 5+, 6-
Input signal		0/4 ... 20 mA , 0/2 ... 10 mA , ± 10 mA, ± 20 mA , max. 50 mA
Input resistance		≤ 25 Ω
Input II		
Connection		terminals 7+, 8-
Input signal		0/1 ... 5 V , 0/2 ... 10 V , ± 5 V , ± 10 V , max. 30 V
Input resistance		> 1 MΩ
Output		
Connection		terminals 3-, 4+
Analog voltage output		0/1 ... 5 V , 0/2 ... 10 V , ± 5 V, ± 10 V , load ≥ 2 kΩ
Analog current output		0/4 ... 20 mA, ± 10 mA, ± 20 mA, load ≤ 600 Ω
Ripple		≤ 10 mV $_{eff}$
Transfer characteristics		
Deviation		≤ 0.1 % of full-scale value
Influence of ambient temperature		< 100 ppm/K of full-scale value
Frequency range		0 ... 100 Hz , 0 ... 5 kHz
Electrical isolation		
Output/power supply		safe electrical isolation by reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V_{eff} test voltage 3 kV, 50 Hz
Input/Other circuits		safe electrical isolation by reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V_{eff} test voltage 3 kV, 50 Hz
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Conformity		
Degree of protection		IEC 60529:2001
Protection against electrical shock		EN 61010-1:2010
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		screw terminals
Core cross-section		≤ 2.5 mm^2 , 14 AWG
Degree of protection		IP20
Mass		approx. 70 g
Dimensions		6.2 x 97 x 107 mm (0.24 x 3.82 x 4.21 in) , housing type S1
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
General information		
Supplementary information		Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.
Accessories		
Designation		optional accessories: - Power Bus POWERBUS-SETL5.250 - Power Bus POWERBUS-SETH5.250 - cover for DIN mounting rail POWERBUS-COV-250 - end cap POWERBUS-CAP

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Configuration

Switch settings

Input S1							Output S2					
1	2	3	4	5	6		1	2	3	4	5	6
ON						± 10 V	ON	ON		ON		
						0 V ... 10 V	ON	ON				
		ON				2 V ... 10 V	ON	ON			ON	
ON	ON					± 5 V	ON	ON	ON	ON		
	ON					0 V ... 5 V	ON	ON	ON			
	ON	ON				1 V ... 5 V	ON	ON	ON		ON	
ON						± 20 mA				ON		
						0 mA ... 20 mA						
		ON				4 mA ... 20 mA					ON	
ON	ON					± 10 mA			ON	ON		
	ON					0 mA ... 10 mA			ON			
	ON	ON				2 mA ... 10 mA			ON		ON	
						Filter 5 kHz						
						Filter 100 Hz						ON
				ON		Zero potentiometer active						
					ON	Span potentiometer active						

Factory settings: all switches in position OFF

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