

Features

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

Function

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

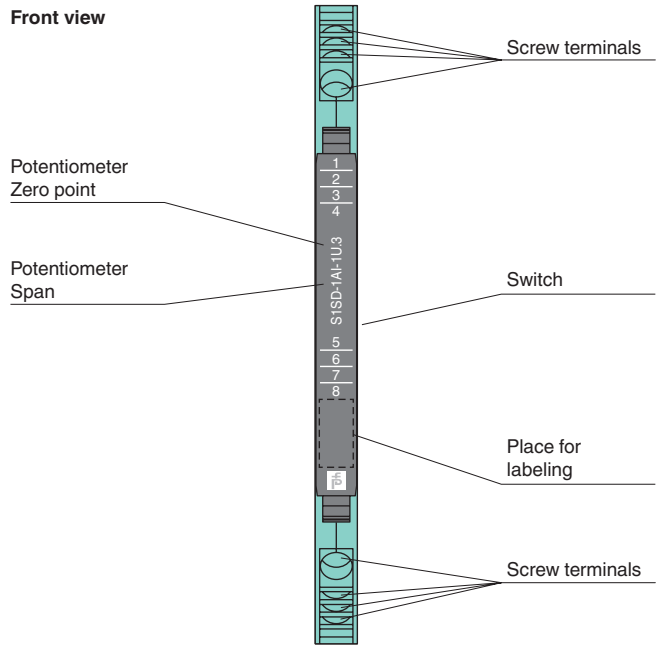
The device has an input for bipolar millivolt sources.

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

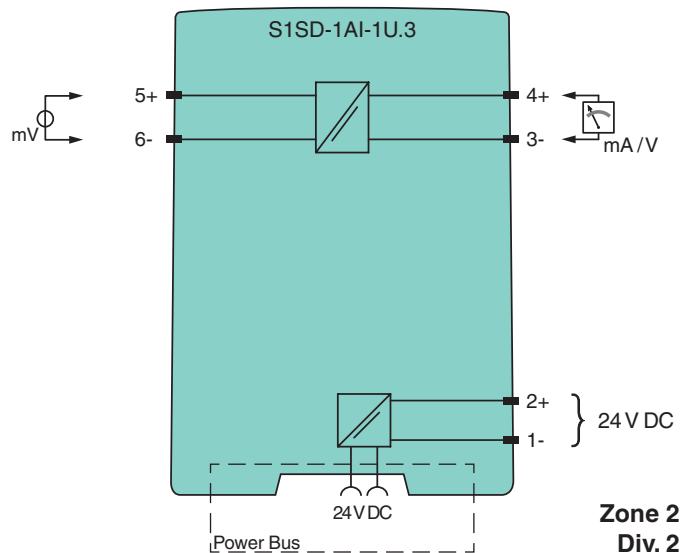
The device is easily configured by the use of DIP switches and potentiometers.

The device can be powered via terminals or Power Bus.

Assembly



Connection



**Zone 2
Div. 2**

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
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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General specifications	
Signal type	Analog input
Supply	
Connection	Power Bus or terminals 1-, 2+
Rated voltage U_r	16.8 ... 31.2 V DC
Power dissipation	0.6 W
Power consumption	0.8 W
Input	
Connection	terminals 5+, 6-
Input signal	± 60 mV, ± 100 mV, ± 150 mV, ± 250 mV, ± 300 mV, ± 500 mV
Input resistance	≥ 100 k Ω
Transmission range	linearity range: unipolar -1 ... 110 % bipolar -110 ... 110 %
Output	
Connection	terminals 3-, 4+
Analog voltage output	0/1 ... 5 V , 0/2 ... 10 V , ± 5 V , ± 10 V , load ≥ 2 k Ω
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 ... 8 kHz
Settling time	7 ms , 150 μ s
Galvanic 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, 1 min
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, 1 min
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations)
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)
Damaging gas	designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications	
Connection type	screw terminals
Core cross-section	0.5 ... 2.5 mm ² , 20 ... 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 inch) , housing type S1
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	DEMKO 16 ATEX 1750X
Marking	 II 3G Ex nA IIC T4 Gc
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-15:2010
International approvals	
UL approval	E106378
IECEX approval	IECEX UL 16.0116X
Approved for	Ex nA IIC T4 Gc
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	

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Optional accessories	power feed module S1SD-2PF Power Bus POWERBUS-SETL5.*** Power Bus POWERBUS-SETH5.*** 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
± 60 mV	ON		ON				± 10 V	ON	ON		ON		
0 mV ... 60 mV			ON				0 V ... 10 V	ON	ON				
± 100 mV	ON		ON	ON			2 V ... 10 V	ON	ON			ON	
0 mV ... 100 mV			ON	ON			± 5 V	ON	ON	ON	ON		
± 150 mV	ON	ON					0 V ... 5 V	ON	ON	ON			
0 mV ... 150 mV		ON					1 V ... 5 V	ON	ON	ON		ON	
± 250 mV	ON	ON		ON			± 20 mA				ON		
0 mV ... 250 mV		ON		ON			0 mA ... 20 mA						
± 300 mV	ON						4 mA ... 20 mA					ON	
0 mV ... 300 mV							± 10 mA			ON	ON		
± 500 mV	ON			ON			0 mA ... 10 mA			ON			
0 mV ... 500 mV				ON			2 mA ... 10 mA			ON		ON	
Zero potentiometer active					ON		Filter 8 kHz						
Span potentiometer active						ON	Filter 100 Hz						ON

Factory settings: all switches in position OFF

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