

Features

- 1-channel signal conditioner
- 24 V DC supply
- Input current and voltage sources
- Current and voltage output
- Accuracy 0.1 %
- Configurable by DIP switches
- Connection via screw terminals

Function

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

The device has an input for the following signals:

- 0/4 mA ... 20 mA signal
- 0/2 V ... 10 V signal

The device provides the following standard signals at the output:

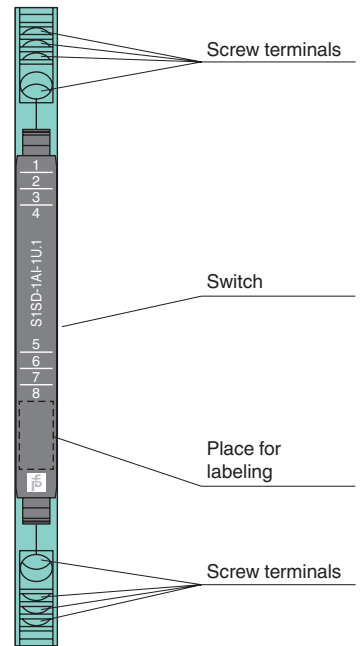
- 0/4 mA ... 20 mA signal
- 0/2 V ... 10 V signal

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

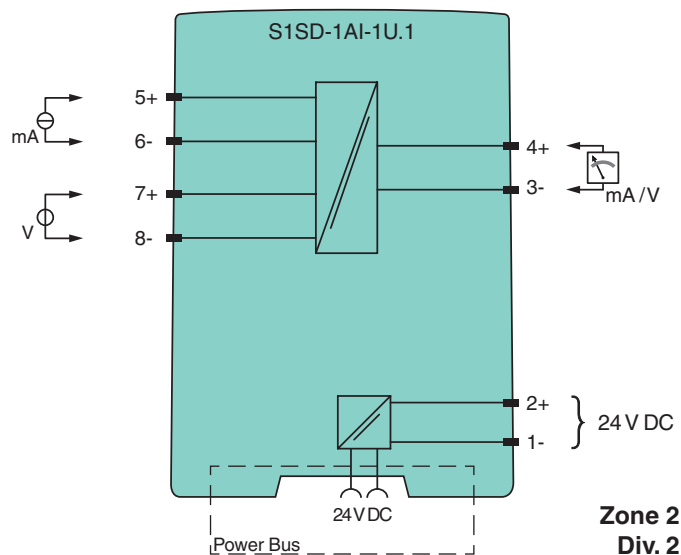
The device can be powered via terminals or Power Bus.

Assembly

Front view



Connection



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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0002
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
pa-info@sg.pepperl-fuchs.com

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	0.7 W
Input	
Connection side	field side
Transmission range	linearity range: -1 ... 110 %
Input I	
Connection	terminals 5+, 6-
Input signal	0/4 ... 20 mA , max. 50 mA
Input resistance	$\leq 25 \Omega$
Input II	
Connection	terminals 7+, 8-
Input signal	0/2 ... 10 V , max. 30 V
Input resistance	$> 100 \text{ k}\Omega$
Output	
Connection side	control side
Connection	terminals 3-, 4+
Analog voltage output	0/2 ... 10 V , load $\geq 2 \text{ k}\Omega$
Analog current output	0/4 ... 20 mA , load $\leq 600 \Omega$
Ripple	$\leq 10 \text{ mV}_{\text{eff}}$
Transfer characteristics	
Accuracy	$\leq 0.1 \%$ of full-scale value
Influence of ambient temperature	$< 100 \text{ ppm/K}$ of full-scale value
Frequency range	0 ... 10 Hz , 0 ... 100 Hz , 0 ... 5 kHz
Settling time	70 ms , 7 ms , 150 μs
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
Indicators/settings	
Control elements	DIP-switch
Configuration	via DIP switches
Labeling	space for labeling at the front
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	
Degree of protection	IP20
Connection	screw terminals
Core cross-section	0.5 ... 2.5 mm ² (20 ... 14 AWG)
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	
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

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General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .
Accessories	
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

Configuration

Switch settings

Input	Output	S					
		1	2	3	4	5	6
0 mA ... 20 mA	0 mA ... 20 mA						
4 mA ... 20 mA					ON		
0 V ... 10 V							
2 V ... 10 V					ON		
0 mA ... 20 mA	4 mA ... 20 mA			ON			
4 mA ... 20 mA							
0 V ... 10 V				ON			
2 V ... 10 V							
0 mA ... 20 mA	0 V ... 10 V	ON	ON				
4 mA ... 20 mA		ON	ON		ON		
0 V ... 10 V		ON	ON				
2 V ... 10 V		ON	ON		ON		
0 mA ... 20 mA	2 V ... 10 V	ON	ON	ON			
4 mA ... 20 mA		ON	ON				
0 V ... 10 V		ON	ON	ON			
2 V ... 10 V		ON	ON				
Filter 5 kHz							
Filter 100 Hz						ON	
Filter 10 Hz							ON

Factory settings: all switches in position OFF

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