

Features

- 1-channel signal conditioner
- 24 V DC supply
- Input 2-wire and 3-wire SMART transmitters and current sources
- Output 0/4 mA ... 20 mA
- Accuracy 0.1 %
- Connection via screw terminals

Function

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

The device supplies 2-wire and 3-wire SMART transmitters, and can also be used with current sources.

At the output the signal is available as active 0/4 mA ... 20 mA signal.

The device has no internal resistor for HART communication.

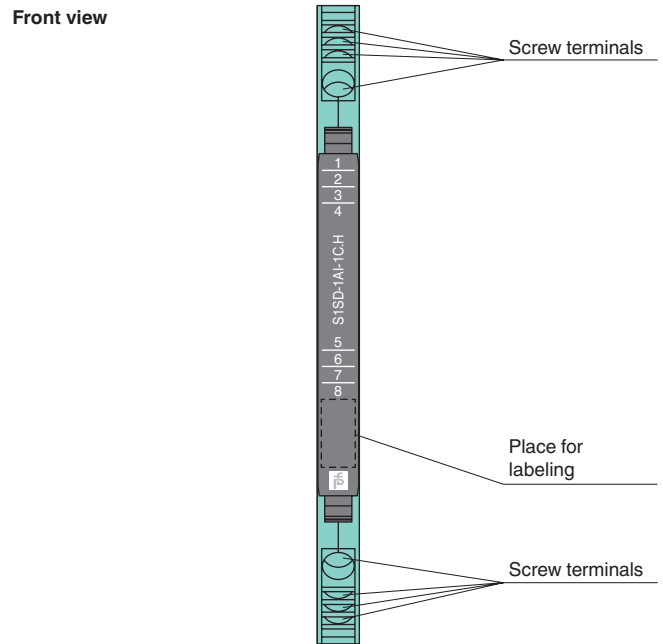
Digital signals may be superimposed on the input signal and are transferred bi-directionally.

The device can be powered via terminals or Power Bus.

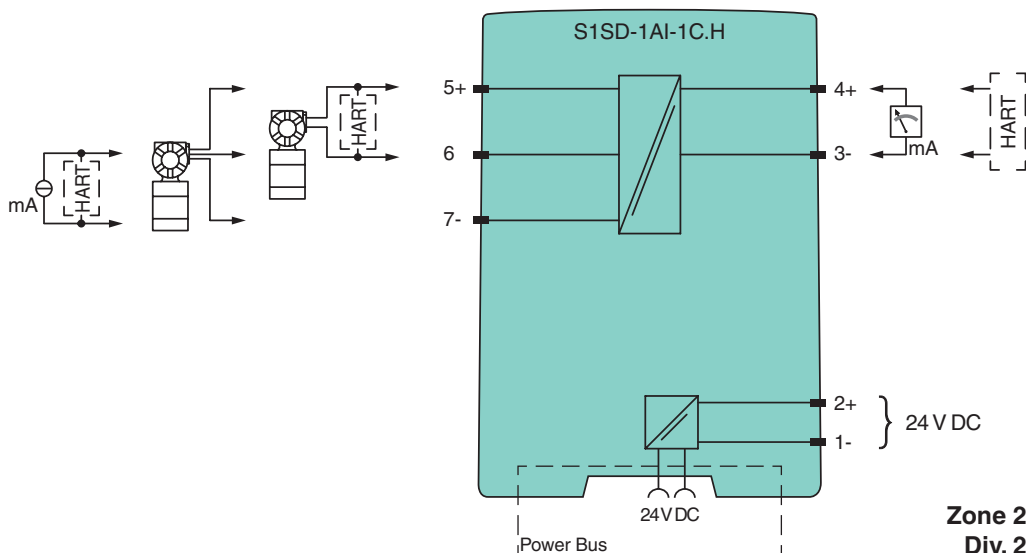
Application

- The device supports the following SMART protocols:
- HART

Assembly



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	0.9 W
Power consumption	1.3 W
Input	
Connection side	field side
Connection	terminals 5+, 6, 7-
Input signal	0/4 ... 20 mA
Open circuit voltage/short-circuit current	$\leq 22 \text{ V} / 30 \text{ mA}$
Input resistance	$\leq 50 \Omega$
Transmission range	linearity range: -1 ... 110 %
Available voltage	16 V at 20 mA
Output	
Connection side	control side
Connection	terminals 3-, 4+
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
Rise time/fall time	$\leq 3.5 \text{ ms}$
Galvanic isolation	
Output/power supply	safe electrical isolation by reinforced insulation according to IEC/EN 61010-1, rated insulation voltage $300 \text{ V}_{\text{eff}}$ 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 $300 \text{ V}_{\text{eff}}$ test voltage 3 kV, 50 Hz, 1 min
Indicators/settings	
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
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals 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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