Passive Isolator

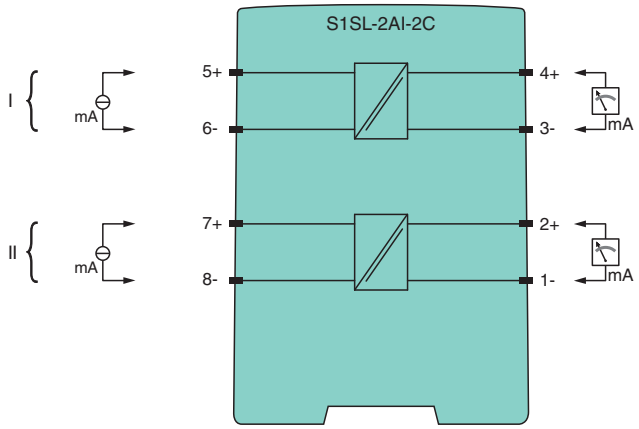
S1SL-2AI-2C

- 2-channel signal conditioner
- Field side loop powered
- Current input/output 0/4 mA ... 20 mA
- Accuracy 0.1 %
- Reverse polarity protection
- Connection via screw terminals

Function

This signal conditioner provides the galvanic isolation between field circuits and control circuits.
The device transfers a 0/4 mA ... 20 mA signal of a current source from the field side to the control side.
This device is loop powered. No additional power supply has to be connected.

Connection



Zone 2
Div. 2

Technical Data

General specifications		
Signal type		Analog input
Operation time		MTBF: 1508 a acc. to SN 29500 stationary continuous operating, average ambient temperature 40 °C (104 °F)
Supply		
Rated voltage	U_r	2.2 ... 30 V DC , loop powered
Power dissipation		0.1 W
Power consumption		0.6 W
Input		
Connection side		field side
Connection		terminals 5+, 6-; 7+, 8-
Input signal		0/4 ... 20 mA , max. 50 mA
Input voltage		≥ 2.3 V + I x load , max. 30 V

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Technical Data

Voltage drop	≤ 2.3 V
Output	
Connection side	control side
Connection	terminals 1-, 2+; 3-, 4+
Analog current output	0/4 ... 20 mA, load ≤ 600 Ω
Ripple	≤ 10 mV $_{eff}$
Transfer characteristics	
Accuracy	max. 0.1 % of full-scale value
Deviation	
Influence of load	0.05 % of the measured value per 100 Ω
Influence of ambient temperature	< 100 ppm/K of full-scale value
Frequency range	0 ... 100 Hz
Rise time/fall time	≤ 3.5 ms
Galvanic isolation	
Field circuit/control circuit	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	
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 mm² (20 ... 14 AWG)
Mass	approx. 70 g
Dimensions	6.2 x 97 x 107 mm (0.24 x 3.82 x 4.21 inch) (W x H x D) , 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	⟨Ex⟩ 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 certificate	IECEx UL 16.0116X
IECEx marking	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.

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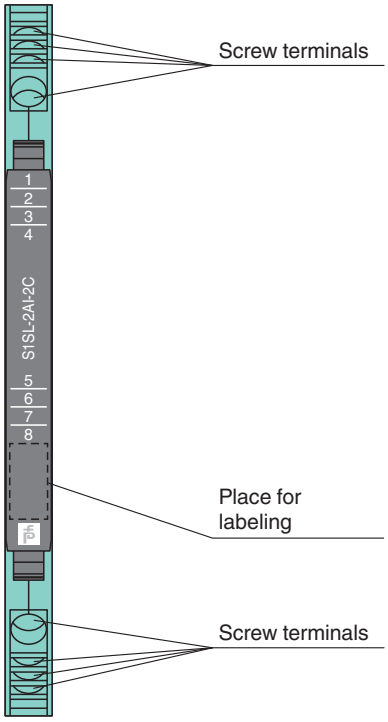
Assembly

Front view



Matching System Components

	**S1SD-2PF**	Power Feed Module
	**POWERBUS-SETL5.250**	Power bus for 35 mm DIN mounting rail, height: 7.5 mm, length: 250 mm
	**POWERBUS-SETH5.250**	Power bus for 35 mm DIN mounting rail, height: 15 mm, length: 250 mm
	**POWERBUS-COV.250**	Cover for 35 mm DIN mounting rail, length: 250 mm
	**POWERBUS-CAP**	End Cap for Power Bus

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