Features

- 1-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

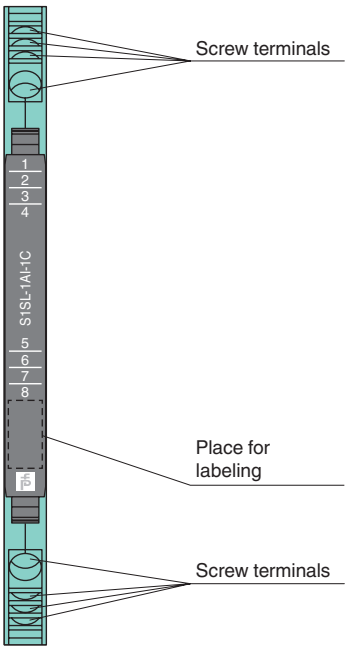
This signal conditioner provides the galvanic isolation between field circuits and control circuits.

The device transfers a 0/4 mA ... 20 mA signal of a current source from the field side to the control side.

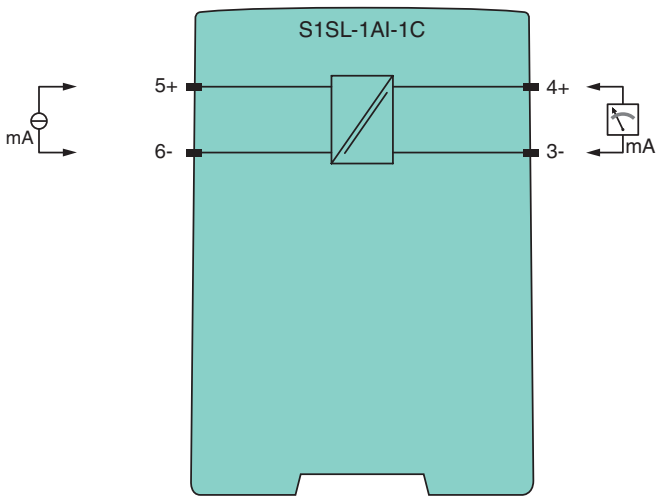
This device is loop powered. No additional power supply has to be connected.

Assembly

Front view



Connection



Zone 2
Div. 2

Release date 2017-01-04 14:33 Date of issue 2017-01-04 276403_eng.xml

General specifications		
Signal type		Analog input
Supply		
Rated voltage	U_r	2.2 ... 30 V DC , loop powered
Power dissipation		0.05 W
Power consumption		0.3 W
Input		
Connection		terminals 5+, 6-
Input signal		0/4 ... 20 mA , max. 50 mA
Input voltage		≥ 2.3 V + I x load , max. 30 V
Voltage drop		≤ 2.3 V
Output		
Connection		terminals 3-, 4+
Analog current output		0/4 ... 20 mA, load ≤ 600 Ω
Ripple		≤ 10 mV_{eff}
Transfer characteristics		
Deviation		≤ 0.1 % of full-scale value
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
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		⟨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 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.

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