Features

- 4-channel
- · Inputs Ex ia
- Installation in suitable enclosures in Zone 1
- Module can be exchanged under voltage (hot swap)
- Converter for 2-, 3- and 4-wire RTDs (Pt100 ... Pt1000), slide wire sensors etc.
- · Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- · Permanently self-monitoring

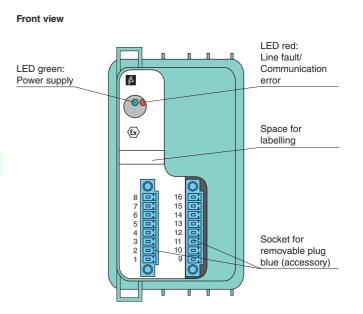
Function

The RTD converter accepts 2-, 3-, 4-wire RTD signals (Pt100 ... Pt1000) and slide-wire sensors from the field. Ni100 through Ni1000 can also be connected.

Open and short-circuit line faults are detected.

The intrinsically safe inputs are galvanically isolated from the bus and the power supply.

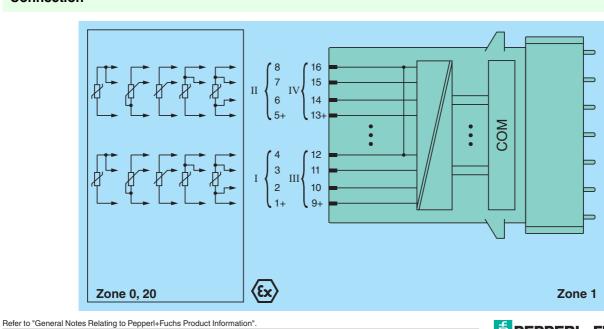
Assembly



CE



Connection



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Slot Comparison Supple 2 Supple Lackplane bus Connection Lackplane bus Rated voltage U, 12 V Co., only in connection with the power supples FB82** Power dissupplem 0.35 W Internal bus manufacture-specific bus to standard con unit Internal bus Lackplane bus With the standard con unit manufacture-specific bus to standard con unit Internal bus A Stable field devices realistance thermometer Field devices realistance thermometer Field devices varies sensor Connection device sensor		
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Connection channel I: resistance/potentiometer input 1 4 channel II: resistance/potentiometer input 5 8 channel II: resistance/potentiometer input 9 12 channel II: resistance/potentiometer input 9 18 Measurement range Pr1000 (18-390 Ω) (500 Ω incl. line resistance) Pr200 (37-780 Ω) Pr200 (37-780 Ω) Pr200 (38-390 Ω) Silde-wire sensor 0 10 kQ Measuring current 200 µA Sinde wire sensor 0 10 kQ Measuring current 200 µA Sinde wire sensor 0 10 kQ Measuring current 250 µA Song is (2 hannels) ± 1 s (for 4X swire Pt100) 18 Busy after download 5 15 s Linearity error Can be switched on/off for each channel via configuration tool Short-circuit < 10 Ω		
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Measurement range P100 (16:300 Ω) (500 Ω incl. line resistance) P1200 (23:352 Ω) P1000 (16:300 Ω) P1000 (16:300 Ω) Sidewire sensor 010 kΩ Measuring current 200 μA Smallest span 010 kΩ Conversion time 200 μA Smallest span 201 σ /1.% accuracy Linearly error Conversion time 250 G per strand Line fault detection can be switched on/off for each channel via configuration tool Shot-circuit <10 Ω	Connection	channel II: resistance/potentiometer input 5 8 channel III: resistance/potentiometer input 9 12
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Line fault detection can be switched on/off for each channel via configuration tool Short-circuit <10 Ω	-	
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Damaging gas EN 60068-2-42 Relative humidity EN 60068-2-56 Ambient conditions	Shock resistance	EN 60068-2-27
Relative humidity EN 60068-2-56 Ambient conditions -20 60 °C (-4 140 °F) Storage temperature -25 85 °C (-13 185 °F)	Vibration resistance	EN 60068-2-6
Ambient conditionsAmbient temperature-20 60 °C (-4 140 °F)Storage temperature-25 85 °C (-13 185 °F)	Damaging gas	EN 60068-2-42
Ambient temperature -20 60 °C (-4 140 °F) Storage temperature -25 85 °C (-13 185 °F)	Relative humidity	EN 60068-2-56
Storage temperature -25 85 °C (-13 185 °F)	Ambient conditions	
	Ambient temperature	-20 60 °C (-4 140 °F)
Relative humidity 95 % non-condensing	Storage temperature	-25 85 °C (-13 185 °F)
	Relative humidity	95 % non-condensing
Shock resistance shock type I, shock duration 11 ms, shock amplitude 15 g, number of shocks 18	Shock resistance	shock type I, shock duration 11 ms, shock amplitude 15 g, number of shocks 18
Shock registered	Ambient conditions Ambient temperature Storage temperature Relative humidity	-20 60 °C (-4 140 °F) -25 85 °C (-13 185 °F) 95 % non-condensing

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2

Vibration resistance		frequency range 10 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 cycles frequency range 5 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at each resonance
Damaging gas		designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level G3
	ne	
Mechanical specifications		ID20 (module) a concrete housing is required and to the sustain description
Degree of protection		IP20 (module), a separate housing is required acc. to the system description
Connection		removable front connector with screw flange (accessory) wiring connection via spring terminals (0.14 1.5 mm ²) or screw terminals (0.08 1.5 mm ²)
Mass		approx. 750 g
Dimensions		57 x 107 x 132 mm (2.2 x 4.2 x 5.2 inch)
Data for application in connection with hazardous areas		
EU-Type Examination Ce	rtificate	PTB 97 ATEX 1074 U
Marking		 (☑) II 2(1) G Ex d [ia Ga] IIC Gb (☑) II (1) D [Ex ia Da] IIIC
Input		
Voltage	Uo	6.8 V
Current	I _o	70 mA
Power	Po	123 mW (linear characteristic)
Galvanic isolation		
Input/power supply, internal bus		safe electrical isolation acc. to EN 60079-11, voltage peak value 375 V
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2009 EN 60079-1:2007 EN 60079-11:2007 EN 60079-26:2007 EN 61241-11:2006
International approvals		
ATEX approval		PTB 97 ATEX 1075 ; PTB 97 ATEX 1074 U
EAC approval		Russia: RU C-IT.MIII06.B.00129
Marine approval		
Lloyd Register		15/20021
DNV GL Marine		TAA0000034
American Bureau of Shipping		T1450280/UN
Bureau Veritas Marine		22449/B0 BV
General information		
System information		The module has to be mounted in appropriate backplanes and housings (FB92**) in Zone 1, 2, 21, 22 or outside hazardous areas (gas or dust). Here, observe the corresponding EC-type examination certificate.
Supplementary information		EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Refer to "General Notes Relat	ting to Pepperl+Fuchs Product Info
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