

Features

- 1-channel isolated barrier
- 24 V AC/DC supply voltage
- Input Pt100, 2-, 3- and 4-wire, potentiometer (up to 600 Ω), thermocouple, mA, mV
- Output 0/4 mA ... 20 mA or 0/2 V ... 10 V, 2 trip amplifiers
- Configurable via PC

Function

The signal converter accepts input signals from RTDs (Resistance Temperature Detector) or transmitting potentiometers from a hazardous area and converts them to an isolated analog current signal and a switch signal in the safe area.

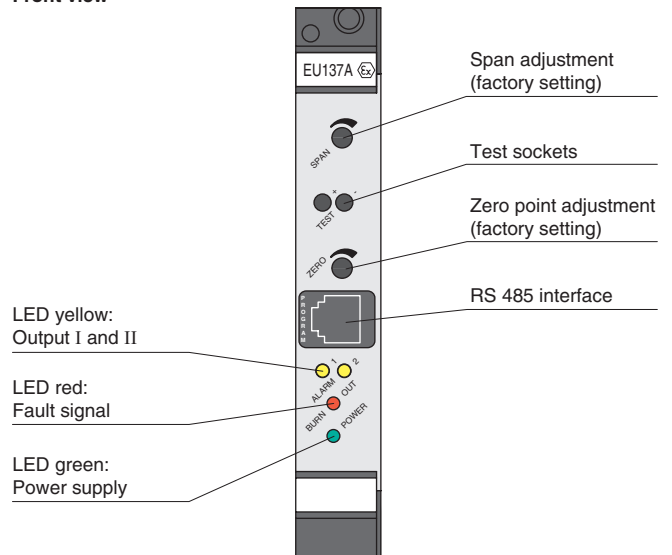
The signal converter can be configured via PC. Via the test sockets on the front side the output signal can be tested.

The trimmers for span and zero point are used only for the first adjustment and sealed afterwards.

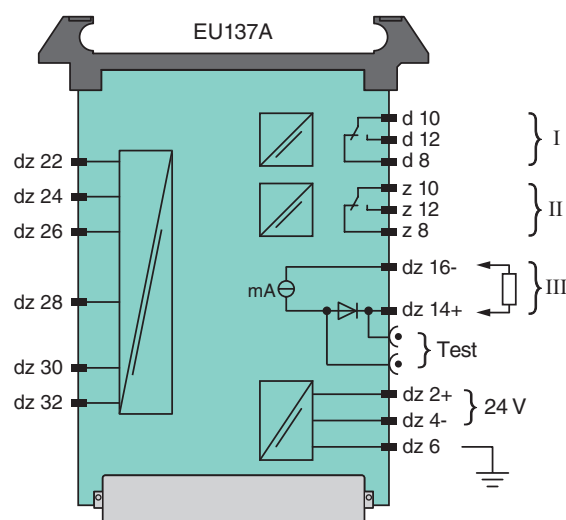
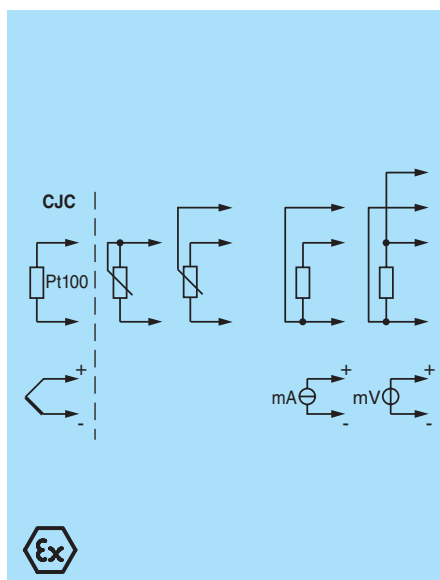
The intrinsically safe input is per EN 50020 safely isolated from the output and the power supply.

Assembly

Front view



Connection

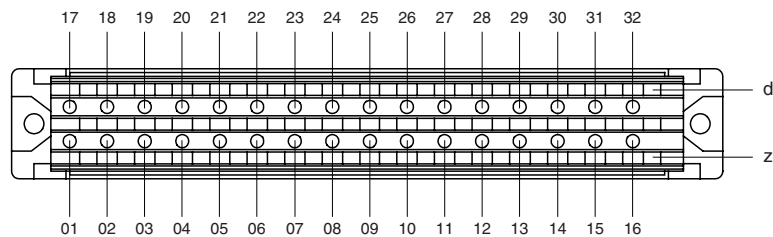


Supply	
Connection	dz2+, dz4-, dz6 (PE)
Rated voltage	20.4 ... 30 V DC 20.4 ... 26.4 V AC, 48 ... 62 Hz
Power consumption	< 5 VA (AC) < 2.4 W (DC)
Input	
Connection	dz22, dz24, dz26, dz28, dz30, dz32
Input voltage	max. 10 V
RTD	Pt100, Ni100
Types of measuring	2-, 3-, 4-wire technology
Measurement range	-200 ... 850 °C (-328 ... 1562 °F) (Pt100) (Default setting: 0 ... 100 °C) -60 ... 250 °C (-76 ... 482 °F) (Ni100)
Thermocouples	Typ B, E, J, K, L, N, R, S, T, U, Pallaplat, min. span 3 mV
Input current	max. 20 mA
Slide-wire sensor	
Types of measuring	2-, 3-, 4-wire technology
Transmission range	within rated sensor limits
Hysteresis	0 ... 100 % , within rated sensor limits
Compensation (reference junction CJC)	intern/extern
mV input	-10 ... 80 mV min. span 3 mV
Output	
Connection	Output I: d8, d10, d12 Output II: z8, z10, z12 Output III: dz14+, dz16-
Response time	0.42 ... 0.7 s
Output I, II	relay
Contact loading	50 V AC/DC; 30 W resistive load
Output III	Analog current output (Voltage input can be activated via soldered jumper)
Current range	0/4 ... 20 mA
Voltage range	0/2 ... 10 V
Load	750 Ω (mA), > 22 kΩ (V)
Fault signal	0 mA/V, 0%, 108%, freezing measurement value, variable default value (effectless with I and U input)
Transfer characteristics	
Influence of temperature	< 0.1 %/10 K
Influence of supply voltage	0.05 %
Linearity	< 0.1 %
Electrical isolation	
Input/Output	1.5 kV (test voltage)
Input/power supply	1.5 kV (test voltage)
Output/power supply	1.5 kV (test voltage)
Indicators/settings	
Display elements	LED POWER (power supply), one green LED LED STATUS (output status), one yellow LED per channel LED BURN OUT (fault signal), one red LED
Controls	trimmers at the front side for: - ZERO (factory adjustment zero) - SPAN (factory adjustment span) test socket TEST -, +
Configuration	via RS 485 interface at the front side
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	The device has been used for the same applications for several years. It therefore features an appropriate electromagnetic field immunity. The device must not be used in new plants.
Conformity	
Electrical isolation	EN 61010
Protection degree	IEC 60529
Ambient conditions	
Ambient temperature	-10 ... 60 °C (14 ... 140 °F)
Storage temperature	-25 ... 80 °C (-13 ... 176 °F)
Relative humidity	max. 90 % non-condensing up to 35 °C (95 °F)
Mechanical specifications	
Protection degree	IP20 (installed in 19" rack)
Connection	plug connector acc. to DIN 41612, 32-pin, type F, rows d and z provided
Mass	approx. 200 g

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Dimensions	22 x 143 x 193 mm (0.9 x 5.6 x 7.6 in)	
Construction type	Eurocard 100 x 160 mm (3.9 x 6.3 in) acc. to DIN 41494, front panel 4TE, 3HE, mountable in 19" rack	
Coding	01/02/07 (see "Notes")	
Data for application in connection with Ex-areas		
EC-Type Examination Certificate	TÜV 02 ATEX 1945 X , for additional certificates see www.pepperl-fuchs.com	
Group, category, type of protection	Ⓔ II (1/2)GD [EEx ia/ib] IIC/IIB (-10 °C ≤ T _{amb} ≤ 60 °C)	
Input	EEx ia/ib IIC/IIB	
Voltage	U _o	6 V
Current	I _o	12 mA
Power	P _o	47 mW (trapezoid characteristic curve)
Internal capacitance	C _i	150 nF
Supply		
Maximum safe voltage	U _m	250 V _{eff} (Attention! U _m is no rated voltage.)
Electrical isolation		
Input/Output	safe galvanical isolation acc. to EN50020:2002, voltage peak value 375 V	
Input/power supply	safe galvanical isolation acc. to EN50020:2002, voltage peak value 375 V	
Directive conformity		
Directive 94/9/EC	EN 50014:1997+A1 +A2, EN 50020:2002	
General information		
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 .	

Notes



Accessories

Type	Model number
Programming cable	GHG 139 0006 C 0000
Reference junction module for mouting on female multipoint connector or clamp for EU137A	GHG 139 0010 C 0000

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