



Transmission range 0 V ... ± 10 V

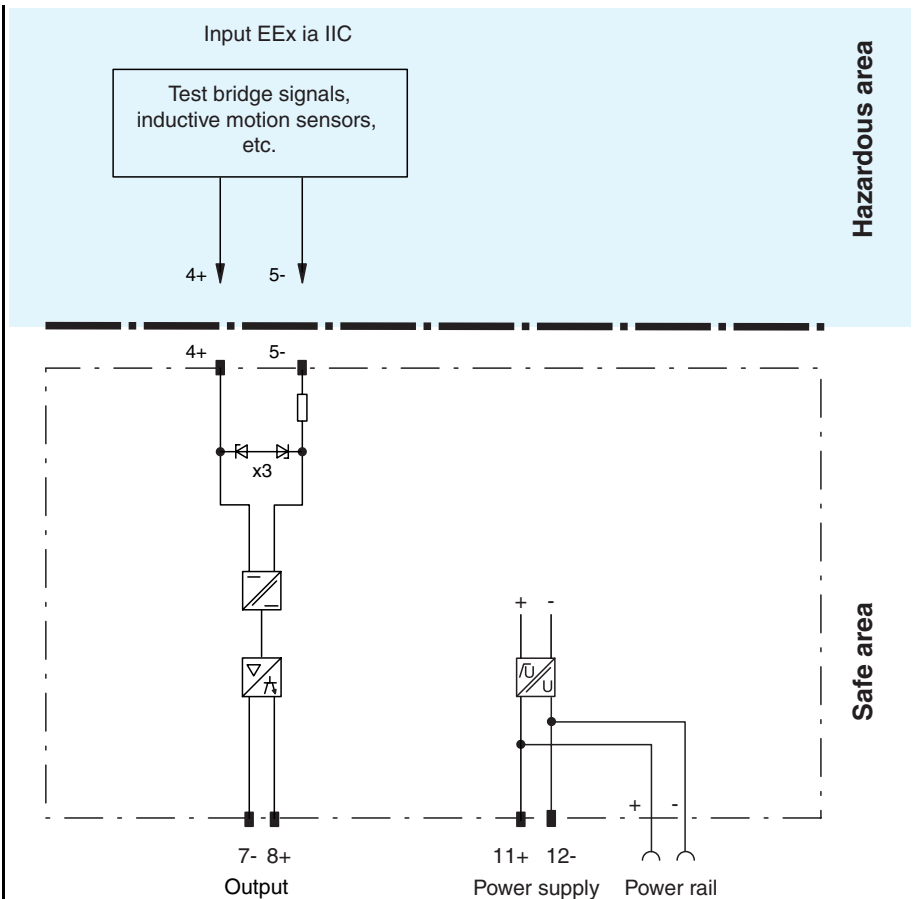
- 1-channel
- Input EEx ia IIC
- 24 V DC nominal supply voltage
- EMC acc. to NAMUR NE 21

Function

The isolated transformer transfers the voltage signal in the range of -10 V ... +10 V. The input voltage at terminals 4 and 5 is transferred to the output (terminals 7 and 8). Terminal 8 has the same polarity as terminal 4, i.e. when terminal 4 is positive relative to terminal 5 then terminal 8 is positive relative to terminal 7. Input, output and power supply are galvanically isolated from each other.

Application

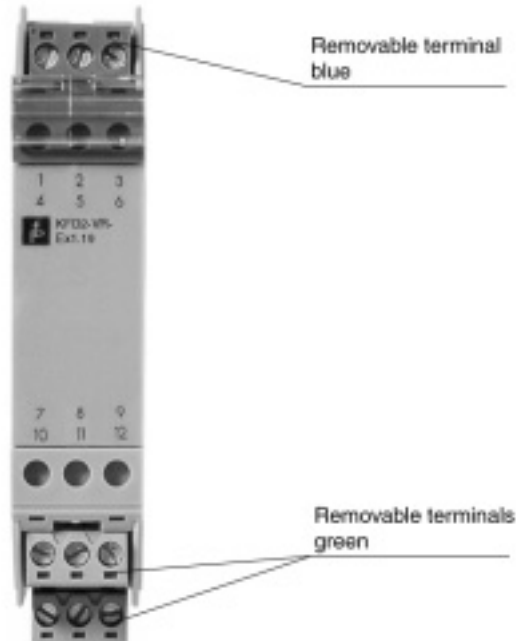
Signal transfer of test bridges, Ex-buffers, potential isolators.



Composition

Front View

Housing type A3
(see system description)



Supply	
Connection	Power Rail or terminals 11+, 12-
Rated voltage	20 ... 35 V DC
Ripple	within the supply tolerance
Rated current	< 20 mA
Input	
Connection	terminals 4+, 5-
Input resistance	≥ 10 MΩ
Transmission range	0 ... ± 10 V
Offset voltage/Current	< 2 mV / < 7 mA
Output	
Connection	terminals 7-, 8+
Voltage	-10 ... 10 V
Safety maximum voltage U _m	250 V
Output resistance	≤ 600 Ω
Transfer characteristics	
Deviation	
After calibration	at 293 K (20 °C): + 5 mV
Temperature	< 0.005 % of range per K
Cutoff frequency	4 kHz
Rise time	< 0,5 ms
Electrical isolation	
Input/Output	safe electrical isolation acc. to EN 50020, voltage peak value 375 V
Input/Power supply	safe electrical isolation acc. to EN 50020, voltage peak value 375 V
Output/Power supply	basic insulation acc. to DIN EN 50178, rated insulation voltage of AC 50 V
Standard conformity	
Coordination of insulation	acc. to DIN EN 50178
Electrical isolation	acc. to DIN EN 50178
Electromagnetic compatibility	acc. to EN 50081-2 / EN 50082-2, NAMUR NE 21
Climatic conditions	acc. to DIN IEC 721
Directive conformity	
Electromagnetic compatibility	standards
Directive 89/336/EG	on request
Ambient conditions	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Mechanical specifications	
Protection degree	IP20
Mass	approx. 100 g
Data for application in conjunction with hazardous areas	
EC-Type Examination Certificate	BAS 01 ATEX 7262 ; for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection	⊕ II (1) G D [EEx ia] IIC (-20 °C ≤ T _a ≤ 60 °C)
Voltage U ₀	18 V
Current I ₀	4,2 mA
Power P ₀	19 mW
Type of protection [EEx ia]	
Explosion group	IIA IIB IIC
External capacitance	7,6 μF 1,78 μF 0,309 μF
External inductance	1000 mH 1000 mH 492 mH
Supply	
Safety maximum voltage U _m	250 V
Electrical isolation	
Input/Output	safe electrical isolation acc. to EN 50020, voltage peak value 375 V
Input/Power supply	safe electrical isolation acc. to EN 50020, voltage peak value 375 V
Directive conformity	
Directive 94/9 EU	standards on request

Accessories

PR-03 Power Rail

UPR-03 Power Rail

KFD2-EB2 power feed module

The devices are supplied with 24 V DC through the KFD2-EB2 power feed module and the PR-03 or the UPR-03 Power Rail. Each power feed module monitors and provides protection for groups of as many as 100 individual devices. The PR-03 Power Rail is an insert component for the DIN rail. The UPR-03 Power Rail is a complete unit consisting of an electrical insert and an aluminium DIN rail measuring 35 mm x 15 mm x 2000 mm. The devices are simply snapped in place to make electrical contact.

If a Power Rail is not being used, power can be supplied to the devices directly through the device terminals.