Transformer isolated barrier for the connection of passive contacts

CE

- 4-channel
- 24 V DC supply voltage
- Power Rail bus
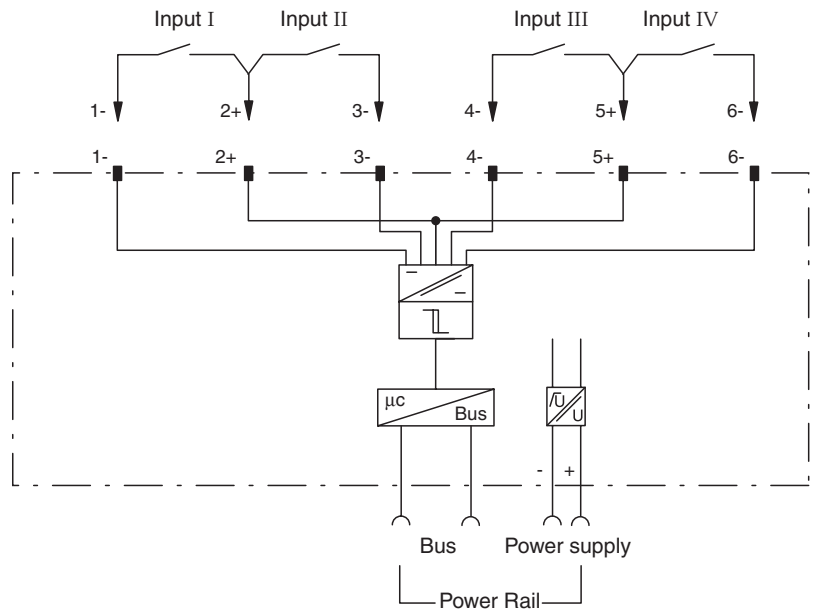- EMC acc. to NAMUR NE 21

Function

The KSD2-BI-4 transmits digital input signals via the Power Rail bus. Dry contacts are used as the transmitters.

The inputs have a common positive reference and are galvanically isolated from output and power supply in accordance to EN 50178.

Application

The transfer of digital input signals from dry contacts to the PLC or the DCS.

Connection

Composition

Front View

Housing type A3
(see system description)

LED yellow:
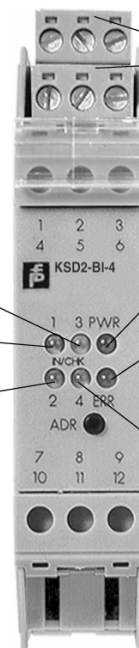Input check channel III

LED yellow:
Input check channel I

LED yellow:
Input check channel II

Removable terminals green

LED green:
Power supply

LED red:
Fault signal

LED yellow:
Input check channel IV

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Supply	
Connection	Power Rail
Rated voltage	20 ... 30 V DC
Ripple	< 10 %
Power consumption	1.2 W
Input	
Connection	terminals 1-, 2+, 3-; 4-, 5+, 6-
Open loop voltage	24 V
Short-circuit current	approx. 2 mA
Output	
Connection	Power Rail
Interface	CAN protocol via Power Rail bus
Transfer characteristics	
Switching frequency	≤ 10 Hz
Electrical isolation	
Input/power supply, internal bus	basic insulation acc. to EN 50178, rated insulation voltage 300 V_{eff}
Directive conformity	
Electromagnetic compatibility	
Directive 89/336/EC	EN 61326
Explosion protection	
Directive 94/9 EC	EN 50021
Standard conformity	
Insulation coordination	EN 50178
Electrical isolation	EN 50178
Electromagnetic compatibility	NE 21
Protection degree	IEC 60529
Climatic conditions	IEC 60721
Ambient conditions	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Damaging gas	acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications	
Protection degree	IP20
Connection	terminal connection ≤ 2.5 mm^2
Mass	approx. 100 g
Dimensions	20 x 100 x 115 mm (0.8 x 3.9 x 4.5 in)
Mounting	DIN rail mounting
Data for application in conjunction with hazardous areas	
Statement of conformity	TÜV 00 ATEX 1617 X , observe statement of conformity
Group, category, type of protection, temperature classification	⟨Ex⟩ II 3G EEx nA II T4

Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed. For information see www.pepperl-fuchs.com.

Notes

Software functions

Adjustable by the **PACT**_ware_**™** human machine interface:
- Information on devices may be saved in PC memory

The following are separately adjustable for each channel:
- TAG numbers, 28 alphanumeric characters, can be programmed into device
- Commentary, may be saved in PC memory
- Input inversion
- Simulation
  - of the input value
  - of the device diagnosis
  - of the process channel diagnosis