## Features

- 2-channel isolated barrier
- 230 V AC supply
- Dry contact or NAMUR inputs
- Latching relay output
- Line fault detection (LFD)
- Reversible mode of operation


## Function

This isolated barrier is used for intrinsic safety applications. It has a latching relay (bistable operation) for level control, pump up/pump down, or other switch/logic applications. The device is set by an active signal on input I and is reset by an active signal on input II. The mode of operation of inputs I and II can be programmed.
Switch S3 is used to enable or disable line fault detection of the field circuit. During an error condition or loss of power, the form C changeover relays revert to their de-energized state and the LEDs indicate the fault according to NAMUR NE44. When the wiring fault is corrected, the relay will revert to the state prior to the fault.

If the device is re-energized after power loss, the relays return to a factory-configured state.

## Assembly



## C <br> 

## Connection



Zone 0, 1, 2
Div. 1, 2

## General specifications

Signal type

## Supply

Connection
Rated voltage
Power consumption

## Input

Connection
Rated values
Open circuit voltage/short-circuit current Line fault detection
Pulse/Pause ratio

## Output

Connection
Output I, II
Contact loading
Energized/de-energized delay
Mechanical life

## Transfer characteristics

Switching frequency
Electrical isolation
Output/power supply
Output/output

## Directive conformity

Electromagnetic compatibility Directive 2004/108/EC
Low voltage
Directive 2006/95/EC

## Conformity

Electrical isolation
Electromagnetic compatibility
Protection degree
Ambient conditions
Ambient temperature

## Mechanical specifications

Protection degree
Mass
Dimensions
Data for application in conjunction with hazardous areas

EC-Type Examination Certificate Group, category, type of protection Input

| Voltage | $\mathrm{U}_{0}$ |
| :--- | :--- |
| Current | $\mathrm{I}_{0}$ |
| Power | $\mathrm{P}_{0}$ |

Supply Safety maximum voltage $U_{m}$
Output
Contact loading
Safety maximum voltage $U_{m}$
Electrical isolation
Input/input
Input/output
Input/power supply
Directive conformity
Directive 94/9/EC

## International approvals

FM approval
Control drawing
UL approval
Control drawing
CSA approval Control drawing
General information

Digital input
terminals 14,15
207 ... 253 V AC, 45 ... 65 Hz
$\leq 1.5 \mathrm{~W}$
terminals $1+$, 2+, 3-; 4+, 5+, 6-
acc. to EN 60947-5-6 (NAMUR)
approx. 8 V DC / approx. 8 mA
breakage I $\leq 0.1 \mathrm{~mA}$, short-circuit $\mathrm{I}>6 \mathrm{~mA}$
$\geq 10 \mathrm{~ms} / \geq 10 \mathrm{~ms}$
output I: terminals 7, 8, 9 ; output II: terminals 10, 11, 12
signal ; relay
$253 \mathrm{VAC} / 2 \mathrm{~A} / \cos \phi>0.7 ; 126.5 \mathrm{~V} \mathrm{AC} / 4 \mathrm{~A} / \cos \phi>0.7 ; 40 \mathrm{VDC} / 2 \mathrm{~A}$ resistive load approx. 20 ms / approx. 20 ms
$10^{7}$ switching cycles
$\leq 10 \mathrm{~Hz}$
safe isolation acc. to DIN VDE 0106, rated insulation voltage $253 \mathrm{~V}_{\text {eff }}$
basic insulation acc. to EN 50178, rated insulation voltage $253 \mathrm{~V}_{\text {eff }}$

EN 61326-1:2006

EN 50178:1997

EN 50178
NE 21
IEC 60529
$-20 \ldots 60^{\circ} \mathrm{C}(253 \ldots 333 \mathrm{~K})$

IP20
approx. 150 g
$20 \times 119 \times 115 \mathrm{~mm}(0.8 \times 4.7 \times 4.5 \mathrm{in})$, housing type B2

PTB 00 ATEX 2081, for additional certificates see www.pepperl-fuchs.com
\&x II (1)GD [EEx ia] IIC [circuit(s) in zone 0/1/2]
EEx ia IIC
10.6 V
19.1 mA

51 mW (linear characteristic)

253 V AC / 126.5 V AC (Attention! $\mathrm{U}_{\mathrm{m}}$ is no rated voltage.)
$253 \mathrm{VAC} / 2 \mathrm{~A} / \cos \phi>0.7 ; 126.5 \mathrm{~V} \mathrm{AC} / 4 \mathrm{~A} / \cos \phi>0.7 ; 40 \mathrm{VDC} / 2 \mathrm{~A}$ resistive load
253 V AC (Attention! The rated voltage can be lower.)
not available
safe electrical isolation acc. to EN 50020 , voltage peak value 375 V
safe electrical isolation acc. to EN 50020, voltage peak value 375 V

EN 50014, EN 50020

116-0035

116-0145

116-0047

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.pepperlfuchs.com.

## Configuration



## Switch position

| $\mathbf{S}$ | Function |  | Position |
| :--- | :---: | :---: | :---: |
| $\mathbf{1}$ | Mode of operation | with high input current | I |
|  | Output I (relay) <br> energized | with low input current | II |
| $\mathbf{2}$ | Mode of operation <br>  <br>  <br>  <br>  <br> Output II (relay) <br> energized | with high input current | I |
|  | Line fault detection | with low input current | II |
|  |  | ON | $\mathbf{I}$ |
|  |  | OFF | II |

## Operating status

| Control circuit | Input signal |
| :---: | :---: |
| Initiator high impedance/ <br> contact opened | low input current |
| Initiator low impedance/ <br> contact closed | high input current |
| Lead breakage, <br> lead short-circuit | Line fault |

Factory settings: switch 1, 2 and 3 in position I

