

Electromagnetic compatibility (EMC)

EMC rating 10 V/m

Electrical data

Rated DC voltage for controls

- Min. rated DC voltage for controls 20.4 V
- Max. rated DC voltage for controls 27.6 V

Rated AC voltage for controls, 50 Hz

- Min. rated AC voltage for controls, 50 Hz -
- Max. rated AC voltage for controls, 50 Hz -

Rated AC voltage for controls, 60 Hz

- Min. rated AC voltage for controls, 60 Hz -
- Max. rated AC voltage for controls, 60 Hz -

Contact resistance max. 100 mΩ

Power consumption < 5 W

Type of actuation DC

Switch frequency 1 Hz

Rated insulation voltage U_i 250 V

Rated operating voltage U_e 24 VDC $\pm 15\%$

Thermal test current I_{the} 6 A

Operating current I_e 0,2 A

Electronic protection (Y/N) No

Inputs

Monitored inputs

- Short-circuit recognition (Y/N) optional
- Wire breakage detection (Y/N) Yes
- Earth connection detection (Y/N) Yes

Number of shutters adjustable 1 piece -> 0 piece

Number of openers adjustable 1 piece -> 2 piece

Input resistance approx. 4000 Ω at GND

Input signal "1" 10 ... 30 VDC

Input signal "0" 0 ... 2 VDC

Cable length 1000 m with 0,75 mm² (for Rated voltage)

Outputs

Stop category 0

Number of safety contacts 2 piece

Number of auxiliary contacts 0 piece

Number of signalling outputs 2 piece

Switching capacity

- Switching capacity of the safety contacts min. 10 mA, max. 6 A
- Switching capacity of the signaling/diagnostic outputs Y1-Y2 = 100 mA

Fuse rating

- Protection of the safety contacts 6 A gG D-fuse
- Fuse rating for the signaling/diagnostic outputs short-circuit proof

Signalling output Y1: Authorized operation, safety contacts on;
2 YNo authorised operation off., safety contacts

Utilisation category To EN 60947-5-1 AC-15: 230 V / 3 A
DC-13: 24 V / 2 A

Number of undelayed semi-conductor outputs with signaling function	2 piece
Number of undelayed outputs with signaling function (with contact)	0 piece
Number of delayed semi-conductor outputs with signaling function.	0 piece
Number of delayed outputs with signalling function (with contact).	0 piece
Number of secure undelayed semi-conductor outputs with signaling function	0 piece
Number of secure, undelayed outputs with signaling function, with contact.	0 piece
Number of secure, delayed semi-conductor outputs with signaling function	0 piece
Number of secure, delayed outputs with signaling function (with contact).	0 piece

LED switching conditions display

LED switching conditions display (Y/N)	Yes
Number of LED's	1 piece

Integral system diagnosis ISD

Integral system diagnosis ISD

- The following faults are registered by the safety monitoring modules and indicated by ISD
- Failure of door contacts to open or close
- Cross-wire or short-circuit monitoring of the switch connections
- Interruption of the switch connections
- Failure of the safety relay to pull-in or drop-out
- Fault on the input circuits or the relay control circuits of the safety monitoring module

Miscellaneous data

Applications



Safety sensor



Guard system

Dimensions

Dimensions

- Width 22.5 mm
- Height 100 mm
- Depth 121 mm

notice

Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.

notice - Wiring example

To secure a guard door up to PL 3 and Category #03#

Monitoring 1 guard door(s), each with a magnetic safety sensor of the BNS range

The feedback circuit monitors the position of the contactors K3 and K4.

Start push button A start push button (NO) can optionally be connected into the feedback circuit. With the guard door closed, the enabling paths are