



## AES 1102.4 42 VAC

- Monitoring of BNS range magnetic safety sensors
- 1 safety contact, STOP 0

## Data

### Ordering data

EAN (European Article Number)	4030661058962
eCl@ss number, Version 9.0	27-37-18-19
eCl@ss number, Version 11.0	27-37-18-19
ETIM number, version 6.0	EC001449

### Approval - Standards

Certificates	BG cULus EAC
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### General data

Standards	IEC/EN 60204-1 IEC 60947-5-3 BG-GS-ET-14 BG-GS-ET-20 EN ISO 13849-1
Climatic stress	EN 60068-2-3 BG-GS-ET-14

Enclosure material	Glass-fibre reinforced thermoplastic, ventilated
Material of the contacts, electrical	AgCdO
Gross weight	160 g

## General data - Features

Stop-Category	0
Wire breakage detection	Yes
Automatic reset function	Yes
Reset after disconnection of supply voltage	Yes
Integral System Diagnostics, status	Yes
Number of LEDs	1
Number of openers	4
Number of shutters	2
Number of safety contacts	1

## Safety appraisal

Standards	EN ISO 13849-1 IEC 61508
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## Safety appraisal - Relay outputs

Performance Level, up to	c
Control category to EN13849	1
PFH-value	$1.14 \times 10^{-6}$ /h
Notice	for max. 50,000 switching cycles/year and max. 80% contact load
Safety Integrity Level (SIL), suitable for applications in	1
Mission time	20 Year(s)

## Mechanical data

Mechanical life, minimum	3,000,000 Operations
Mounting	Snap onto standard DIN rail to EN 60715

### Mechanical data - Connection technique

Terminal Connector	Screw connection rigid or flexible
Terminal designations	IEC/EN 60947-1
Cable section, maximum	2.5 mm <sup>2</sup>
Tightening torque of Clips	0.6 Nm

### Mechanical data - Dimensions

Width	22.5 mm
Height	75 mm
Depth	110 mm

### Ambient conditions

Degree of protection of the enclosure	IP40
Degree of protection of the mounting space	IP54
Degree of protection of clips or terminals	IP20
Ambient temperature, minimum	+0 °C
Ambient temperature, maximum	+55 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+70 °C
Resistance to vibrations to EN 60068-2-6	10...55 Hz, Amplitude 0.35 mm, ± 15 %
Resistance to shock	30 g / 11 ms

### Ambient conditions - Insulation value

Rated impulse withstand voltage $U_{imp}$	4 kV
Overvoltage category	III
Degree of pollution to IEC/EN 60664-1	2

## Electrical data

Frequency range	50 Hz 60 Hz
Thermal test current	4 A
Rated operating voltage	42 V
Rated AC voltage for controls, 50 Hz, minimum	35.7 VAC
Rated control voltage at AC 50 Hz, maximum	46.2 VAC
Rated AC voltage for controls, 60 Hz, minimum	35.7 VAC
Rated control voltage at AC 60 Hz, maximum	46.2 VAC
Electrical power consumption	2.4 W
Contact resistance, maximum	0.1 $\Omega$
Note (Contact resistance)	in new state
Drop-out delay in case of power failure, typically	80 ms
Drop-out delay in case of emergency, typically	20 ms
Pull-in delay at automatic start, maximum, typically	100 ms
Pull-in delay at RESET, typically	20 ms

## Electrical data - Safe relay outputs

Voltage, Utilisation category AC15	250 VAC
Current, Utilisation category AC-15	1.5 A
Voltage, Utilisation category DC13	24 VDC

Current, Utilisation category DC13	1 A
Switching capacity, minimum	10 VDC
Switching capacity, minimum	10 mA
Switching capacity, maximum	250 VAC
Switching capacity, maximum	8 A

### Electrical data - Digital inputs

Conduction resistance, maximum	40 $\Omega$
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### Electrical data - Digital Output

Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.1 A

### Electrical data - Relay outputs (auxiliary contacts)

Switching capacity, maximum	24 VDC
Switching capacity, maximum	2 A

### Electrical data - Electromagnetic compatibility (EMC)

EMC rating	EMC-Directive
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### Status indication

Indicated operating states	Authorised operation
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### Other data

Note (applications)	Safety sensor Guard system
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## Notes

Note (General)

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

## Circuit example

Note (Wiring diagram)

To secure one or a number of guard doors up to PL c and Category 1  
Monitoring a number of guard doors using magnetic safety sensors  
BNS range  
The wiring diagram is shown with guard doors closed and in de-energised condition.

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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