



AES 1112 24 VDC

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

Data

Ordering data

Product type description	AES 1112 24 VDC
Article number (order number)	101128982
EAN (European Article Number)	4030661059259
eCl@ss number, version 12.0	27-37-18-19
eCl@ss number, version 11.0	27-37-18-19
eCl@ss number, version 9.0	27-37-18-19
ETIM number, version 7.0	EC001449
ETIM number, version 6.0	EC001449

Approvals - Standards

Certificates	BG cULus
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General data

Standards	BG-GS-ET-14 BG-GS-ET-20 EN IEC 62061 EN ISO 13849-1 EN IEC 60947-5-1 EN IEC 60947-5-3 EN IEC 60947-5-5 EN IEC 60204-1 EN IEC 60947-1
Climatic stress	EN 60068-2-3 BG-GS-ET-14
Housing material	Glass-fibre reinforced thermoplastic, ventilated
Gross weight	122 g

General data - Features

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 normally closed (NC)	2
Number of normally open (NO)	1
Number of safety contacts	1

Safety classification

Standards	EN ISO 13849-1 EN IEC 61508
Stop-Category	0

Safety classification - Relay outputs

Performance Level, up to	c
Category	1

PFH value	1.14 x 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	10,000,000 Operations
Mounting	Snaps onto standard DIN rail to EN 60715

Mechanical data - Connection technique

Terminal designations	IEC/EN 60947-1
Termination	rigid or flexible Screw terminals M20 x 1.5
Cable section, maximum	2.5 mm ²
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	+0 ... +55 °C
Storage and transport temperature	-25 ... +70 °C

Resistance to vibrations	10...55 Hz, Amplitude 0.35 mm, $\pm 15\%$
Resistance to shock	30 g / 11 ms

Ambient conditions - Insulation values

Rated impulse withstand voltage U_{imp}	4 kV
Overtoltage category	III
Degree of pollution	2

Electrical data

Frequency range	50 Hz 60 Hz
Operating voltage	24 VDC -15 % / +15 %
Thermal test current	4 A
Rated operating voltage	24 VDC
Rated AC voltage for controls at DC minimum	20.4 VDC
Rated control voltage at DC, maximum	27.6 VDC
Electrical power consumption	2.4 W
Contact resistance, maximum	0.1 Ω
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
Material of the contacts, electrical	AgCdO

Electrical data - Safe relay outputs

Voltage, Utilisation category AC-15	230 VAC
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Current, Utilisation category AC-15	3 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	2 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 Ω
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Electrical data - Digital Output

Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	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

Note

Note (General)

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

Wiring example

Note (Wiring diagram)

The wiring diagram is shown with guard doors closed and in de-energised condition.

To secure 2 guard doors up to PL c and Category 1

Monitoring 2 guard door(s), each with a magnetic safety sensor of the BNS range

Monitoring one guard door: If only one magnetic safety sensor is connected to S1, the terminals S22, S32 and C of S2 must be bridged.

Ordering code

Product type description:

AES 1112.(1)

(1)

without	24 VDC
1	110 VAC
2	230 VAC
3	24 VAC
4	42 VAC

Pictures

Product picture (catalogue individual photo)



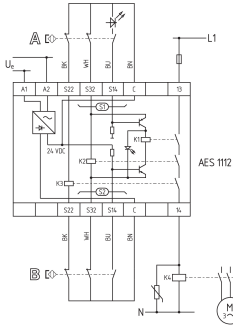
ID: kaes1f06

| 388.1 kB | .jpg | 136.525 x 291.042 mm - 387 x 825 px - 72 dpi

| 142.7 kB | .png | 74.083 x 157.692 mm - 210 x 447 px - 72 dpi

| 54.2 kB | .jpg | 57.856 x 123.472 mm - 164 x 350 px - 72 dpi

Wiring example



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| 36.2 kB | .cdr |

| 175.9 kB | .jpg | 352.778 x 474.486 mm - 1000 x 1345 px - 72 dpi

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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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