

Datasheet - AES 1112.1



Guard door monitors and Safety control modules for Emergency Stop applications / Micro Processor based safety controllers (Series AES) / AES 1112



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

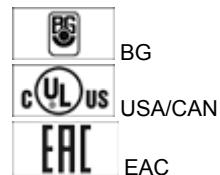
(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	AES 1112.1
Article number	101128798
EAN Code	4030661059174
eCl@ss	27-37-19-01

Approval


Approval



Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up c
Control category	up 1
PFH value	1.14 x 10 ⁻⁶ /h
- notice	up to max. 50.000 switching cycles/year and at max. 80% contact load
SIL	up 1
Mission time	20 Years

Global Properties

Permanent light	AES 1112
Standards	IEC/EN 60204-1, IEC 60947-5-3, IEC 61508, BG-GS-ET-14, BG-GS-ET-20
Compliance with the Directives (Y/N) 	Yes
Climatic stress	EN 60068-2-3, BG-GS-ET-14
Mounting	snaps onto standard DIN rail to EN 60715
Terminal designations	IEC/EN 60947-1
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, ventilated
- Material of the contacts	AgCdO
Weight	160
Start conditions	Automatic
Start input (Y/N)	No
Feedback circuit (Y/N)	No
Start-up test (Y/N)	No
Reset after disconnection of supply voltage (Y/N)	Yes
Automatic reset function (Y/N)	Yes
Reset with edge detection (Y/N)	No
Drop-out delay	
- Drop-out delay in case of emergency stop	< 50

Mechanical data

Connection type	Screw connection
Cable section	
- Max. Cable section	2.5
Pre-wired cable	rigid or flexible
Tightening torque for the terminals	0,6
Detachable terminals (Y/N)	No
Mechanical life	10.000.000 operations
Electrical lifetime	100.000 operations for 230 VAC, 5 A (cos φ = 1)
resistance to shock	30 g / 11 ms
Resistance to vibration To EN 60068-2-6	10...55 HZ, Amplitude 0,35 mm, \pm 15 %

Ambient conditions

Ambient temperature	
- Min. environmental temperature	0
- Max. environmental temperature	+55
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+70
Protection class	
- Protection class-Enclosure	IP40
- Protection class-Terminals	IP20
- Protection class-Clearance	IP54
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage U_{imp}	4
- Overvoltage category	III To VDE 0110
- Degree of pollution	2 To VDE 0110

Electromagnetic compatibility (EMC)

EMC rating

conforming to EMC Directive

Electrical data

Rated DC voltage for controls

- Max. rated DC voltage for controls -
- Max. rated DC voltage for controls -

Rated AC voltage for controls, 50 Hz

- Min. rated AC voltage for controls, 50 Hz 93.5
- Max. rated AC voltage for controls, 50 Hz 121

Rated AC voltage for controls, 60 Hz

- Min. rated AC voltage for controls, 60 Hz 93.5
- Max. rated AC voltage for controls, 60 Hz 121

Contact resistance

max. 100 mΩ

Power consumption

2.4

Type of actuation

AC

Switch frequency

10

Rated insulation voltage U_i

250 V

Rated operating voltage U_e

110 VAC

Thermal test current I_{the}

4 A

Operating current I_e

0,03 A

Electronic protection (Y/N)

No

Inputs

Monitored inputs

- Short-circuit recognition (Y/N) No
- Wire breakage detection (Y/N) Yes
- Earth connection detection (Y/N) No

Number of shutters

1

Number of openers

2

Input resistance

-

Input signal "1"

-

Input signal "0"

-

Cable length

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

Outputs

Stop category

0

Number of safety contacts

1

Number of auxiliary contacts

0

Number of signalling outputs

0

Switching capacity

- Switching capacity of the safety contacts max. 4 A / 6 A

Fuse rating

- Protection of the safety contacts 4 A gG D-fuse / 6 A

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

0

Number of undelayed outputs with signaling function (with contact)

0

Number of delayed semi-conductor outputs with signaling function.

0

Number of delayed outputs with signalling function (with contact).

0

Number of secure undelayed semi-conductor outputs with signaling

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

LED switching conditions display

LED switching conditions display (Y/N)	Yes
Number of LED's	1
LED switching conditions display	
- The integrated LEDs indicate the following operating states.	
- Authorized operation	

Miscellaneous data

Applications



Safety sensor



Guard system

Dimensions

Dimensions

- Width	22.5 mm
- Height	75 mm
- Depth	110 mm

notice

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

notice - Wiring example

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.

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

Documents

Operating instructions and Declaration of conformity (jp) 306 kB, 27.08.2012

Code: mrl_aes_1102_1112_jp

Operating instructions and Declaration of conformity (de) 205 kB, 22.11.2017

Code: mrl_aes_1102_1112_de

Operating instructions and Declaration of conformity (pt) 240 kB, 03.01.2018

Code: mrl_aes_1102_1112_pt

Operating instructions and Declaration of conformity (en) 236 kB, 22.11.2017

Code: mrl_aes_1102_1112_en

Operating instructions and Declaration of conformity (it) 236 kB, 03.01.2018

Code: mrl_aes_1102_1112_it

Operating instructions and Declaration of conformity (pl) 250 kB, 03.01.2018

Code: mrl_aes_1102_1112_pl

Operating instructions and Declaration of conformity (nl) 235 kB, 03.01.2018

Code: mrl_aes_1102_1112_nl

Operating instructions and Declaration of conformity (fr) 238 kB, 03.01.2018

Code: mrl_aes_1102_1112_fr

Operating instructions and Declaration of conformity (es) 237 kB, 03.01.2018

Code: mrl_aes_1102_1112_es

Wiring example (99) 17 kB, 20.08.2008

Code: kaes1106

BG-test certificate (de) 273 kB, 27.08.2018

Code: z_110p01

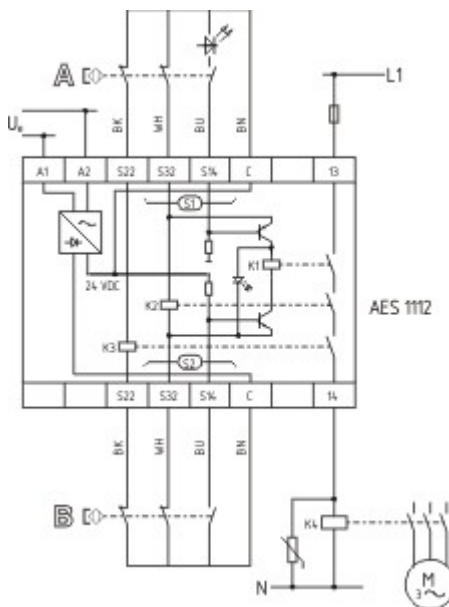
BG-test certificate (en) 272 kB, 27.08.2018

Code: z_110p02

EAC certification (ru) 1 MB, 15.03.2018

Code: q_aesp01

Images



Wiring example

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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