

Datasheet - AES 1102.1



Guard door monitors and Safety control modules for Emergency Stop applications / Micro Processor based safety controllers (Series AES) / AES 1102



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

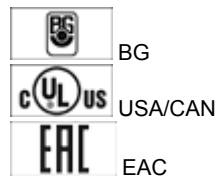
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Ordering details

Product type description	AES 1102.1
Article number	101128795
EAN Code	4030661059129
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 1102
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	164
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	3.000.000 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 kV
- 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 V
Thermal test current I_{the}	4 A
Operating current I_e	0,1 A
Electronic protection (Y/N)	No

Inputs

Monitored inputs

- Wire breakage detection (Y/N)	Yes
- Short-circuit recognition (Y/N)	No
- Earth connection detection (Y/N)	No
Number of shutters	2
Number of openers	4
Input resistance	-
Input signal "1"	-
Input signal "0"	-
Cable length	1000 m with 0,75 mm ² (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: 250 V / 1,5 A DC-13: 24 V / 1 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 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.

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

