

Datasheet - AES 7112.3



Guard door monitors and Safety control modules for Emergency Stop applications / Micro Processor based safety controllers (Series AES) / AES 7112

Preferred typ

- 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 7112.3
Article number	101120016
EAN code	4030661058641
eCl@ss	27-37-19-01

Approval


Approval



Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up d
Control category	up 3
PFH value	1.0 x 10 ⁻⁷ /h
- notice	up to max. 50.000 switching cycles/year and at max. 80% contact load
SIL	up 2
Mission time	20 Years

Global Properties

Product name	AES 7112
Standards	IEC/EN 60204-1, IEC 60947-5-3, EN 954-1, BG-GS-ET-14, BG-GS-ET-20
Compliance with the Directives (Y/N) 	Yes
Mounting	snaps onto standard DIN rail to EN 60715
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, ventilated
- Material of the contacts	
Weight	230 g
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 ms

Mechanical data

Connection type	Screw connection
Cable section	
- Max. Cable section	1.5 mm ²
Pre-wired cable	rigid or flexible
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, ± 15 %

Ambient conditions

Ambient temperature	
- Min. environmental temperature	0 °C
- Max. environmental temperature	+55 °C
Storage and transport temperature	
- Min. Storage and transport temperature	-25 °C
- Max. Storage and transport temperature	+70 °C
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}	4.8 kV
- Overvoltage category	III To VDE 0110
- Degree of pollution	2 To VDE 0110

Electromagnetic compatibility (EMC)

EMC rating	conforming to EMC Directive
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Electrical data

Rated DC voltage for controls	
- Min. 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	20.4 V
- Max. rated AC voltage for controls, 50 Hz	26.4 V
Rated AC voltage for controls, 60 Hz	
- Min. rated AC voltage for controls, 60 Hz	20.4 V
- Max. rated AC voltage for controls, 60 Hz	26.4 V
Contact resistance	max. 100 mΩ
Power consumption	1.5 W
Type of actuation	AC
Switch frequency	10 Hz
Rated insulation voltage U_i	250 V
Rated operating voltage U_e	24 VAC
Thermal test current I_{the}	5 A
Operating current I_e	0,06 A
Electronic protection (Y/N)	No

Inputs

Monitored inputs

- Short-circuit recognition (Y/N)	Yes
- Wire breakage detection (Y/N)	Yes
- Earth connection detection (Y/N)	No
Number of shutters	2 x 2 piece
Number of openers	2 x 1 piece
Input resistance	-
Input signal "1"	-
Input signal "0"	-
Cable length	100 m with 0,75 mm ² (for Rated voltage)

Outputs

Stop category	0
Number of safety contacts	1 piece
Number of auxiliary contacts	0 piece
Number of signalling outputs	0 piece
Switching capacity	
- Switching capacity of the safety contacts	max. 250 VAC, max. 5 A; min. >10 mA
Fuse rating	
- Protection of the safety contacts	5 A gG D-fuse
Utilisation category To EN 60947-5-1	AC-15: 250 V / 2 A DC-13: 24 V / 2 A
Number of undelayed semi-conductor outputs with signaling function	0 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
LED switching conditions display	
- The integrated LEDs indicate the following operating states.	
- Authorized operation	

Miscellaneous data

Applications



Safety sensor



Guard system

Dimensions

Dimensions

- Width	105 mm
- Height	96 mm
- Depth	58 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 1 and Category #03#

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

Monitoring further guard doors:

Further magnetic safety sensors can be connected to S2 in a similar way to those on S1.

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

Documents

Operating instructions and Declaration of conformity (pt) 207 kB, 21.08.2013

Code: mrl_aes6112-7112_pt

Operating instructions and Declaration of conformity (nl) 677 kB, 23.04.2010

Code: mrl_aes6112-7112_nl

Operating instructions and Declaration of conformity (es) 461 kB, 02.05.2011

Code: mrl_aes6112-7112_es

Operating instructions and Declaration of conformity (da) 206 kB, 11.07.2013

Code: mrl_aes6112-7112_da

Operating instructions and Declaration of conformity (it) 204 kB, 08.08.2011

Code: mrl_aes6112-7112_it

Operating instructions and Declaration of conformity (fr) 454 kB, 28.06.2011

Code: mrl_aes6112-7112_fr

Operating instructions and Declaration of conformity (de) 775 kB, 05.03.2010

Code: mrl_aes6112-7112_de

Operating instructions and Declaration of conformity (pl) 200 kB, 28.08.2013

Code: mrl_aes6112-7112_pl

Operating instructions and Declaration of conformity (jp) 569 kB, 11.11.2011

Code: mrl_aes6112-7112_jp

Operating instructions and Declaration of conformity (en) 744 kB, 05.03.2010

Code: mrl_aes6112-7112_en

Wiring example (99) 19 kB, 20.08.2008

Code: kaes7101

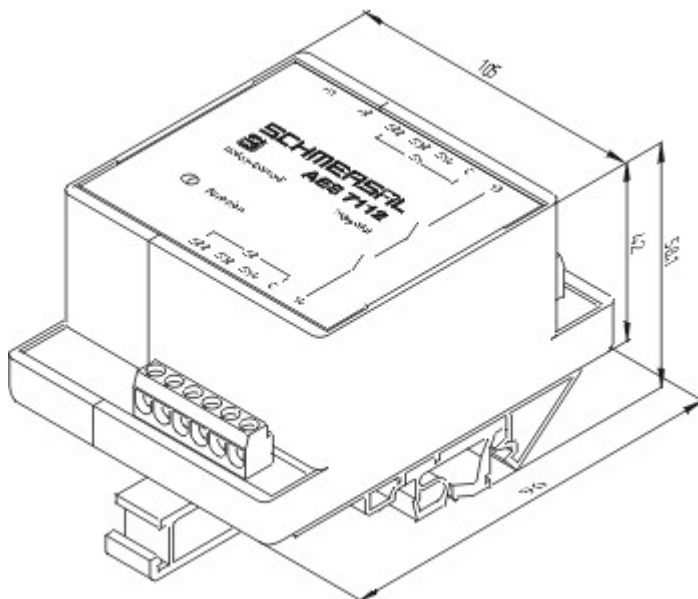
BG-test certificate (de) 585 kB, 05.01.2011

Code: z_611p01

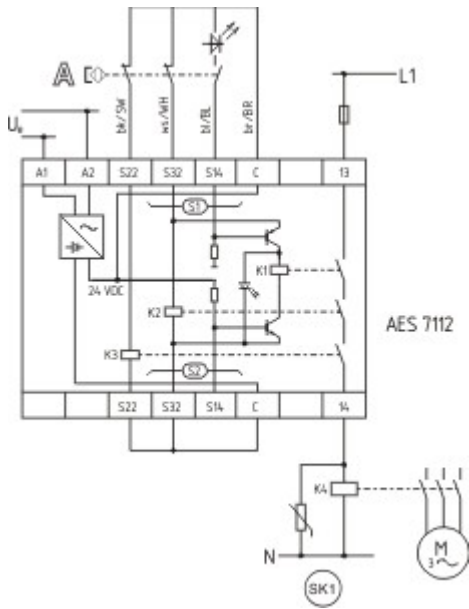
BG-test certificate (en) 574 kB, 05.01.2011

Code: z_611p02

Images



Dimensional drawing (basic component)



Wiring example

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

Generiert am 27.01.2016 - 00:14:06h Kasbase 3.2.1.F.64I