

## Datasheet - AES 7112.2



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 7112.2
Article number	101115498
EAN Code	4030661058474
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 <sup>-7</sup> /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

Permanent light	AES 7112
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
Mounting	snaps onto standard DIN rail to EN 60715
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, ventilated
- Material of the contacts	AgSn0
Weight	230
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	1.5
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 $\phi$ = 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 $U_{imp}$	4.8 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

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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	195.5
- Max. rated AC voltage for controls, 50 Hz	253
Rated AC voltage for controls, 60 Hz	
- Min. rated AC voltage for controls, 60 Hz	195.5
- Max. rated AC voltage for controls, 60 Hz	253
Contact resistance	max. 100 mΩ
Power consumption	1.5
Type of actuation	AC
Switch frequency	10
Rated insulation voltage $U_i$	250 V
Rated operating voltage $U_e$	230 VAC
Thermal test current $I_{the}$	5 A
Operating current $I_e$	0,06 A
Electronic protection (Y/N)	No

## Inputs

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### 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
Number of openers	2 x 1
Input resistance	-
Input signal "1"	-
Input signal "0"	-
Cable length	100 m with 0,75 mm <sup>2</sup> (for Rated voltage)

## Outputs

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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. 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
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

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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

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Applications



Safety sensor



Guard system

## Dimensions

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Dimensions

- Width	105 mm
- Height	96 mm
- Depth	58 mm

## notice

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

## notice - Wiring example

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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

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**Operating instructions and Declaration of conformity (pt)** 238 kB, 23.01.2018

Code: mrl\_aes6112-7112\_pt

**Operating instructions and Declaration of conformity (nl)** 233 kB, 13.08.2018

Code: mrl\_aes6112-7112\_nl

**Operating instructions and Declaration of conformity (es)** 234 kB, 12.01.2018

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)** 235 kB, 01.02.2018

Code: mrl\_aes6112-7112\_it

**Operating instructions and Declaration of conformity (fr)** 229 kB, 08.01.2018

Code: mrl\_aes6112-7112\_fr

**Operating instructions and Declaration of conformity (de)** 202 kB, 09.11.2017

Code: mrl\_aes6112-7112\_de

**Operating instructions and Declaration of conformity (pl)** 249 kB, 18.04.2018

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)** 234 kB, 09.11.2017

Code: mrl\_aes6112-7112\_en

**Wiring example (99)** 19 kB, 20.08.2008

Code: kaes7101

**BG-test certificate (de)** 280 kB, 27.08.2018

Code: z\_711p01

**BG-test certificate (de)** 673 kB, 20.08.2009

Code: z\_711p01

**BG-test certificate (en)** 277 kB, 27.08.2018

Code: z\_711p02

**BG-test certificate (en)** 659 kB, 20.08.2009

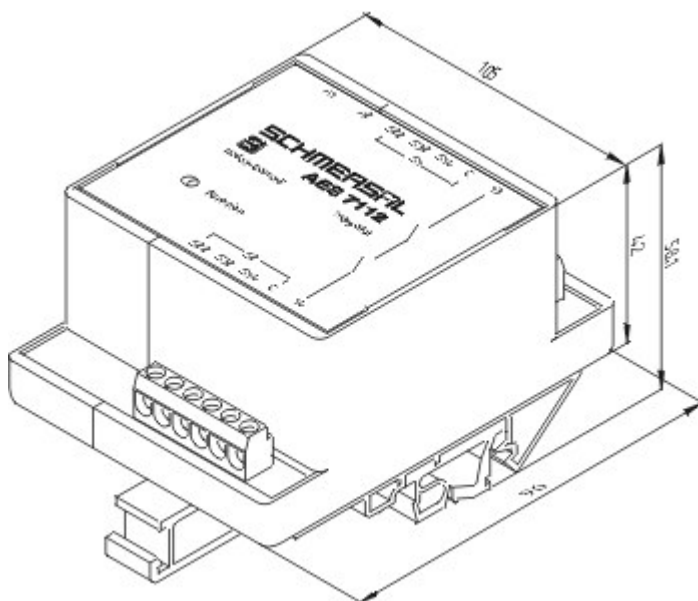
Code: z\_711p02

**EAC certification (ru)** 1 MB, 15.03.2018

Code: q\_aesp01

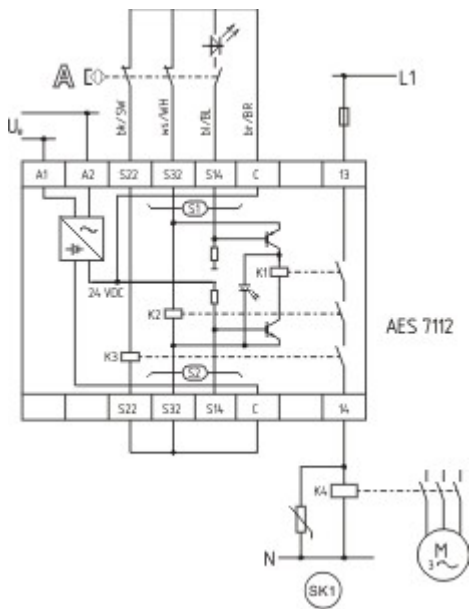
## Images

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Dimensional drawing (basic component)

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Wiring example

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

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