

## Datasheet - SRB 207AN-230V



Guard door monitors and Safety control modules for  
Emergency Stop applications / Monitoring of  
electromechanical switchgear / SRB 207AN



- Fit for signal evaluation of outputs of safety magnetic switches
- 2 safety contacts, STOP 0
- 6 Signalling outputs
- Multi-evaluation of up to 6 safety guards
- Suitable for signal processing of potential-free outputs, e.g. emergency stop command devices, position switches and solenoid interlocks

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

### Ordering details

Product type description	SRB 207AN-230V
Article number	1196817
EAN code	4030661365022

### Approval

Approval




### Classification

Standards	EN ISO 13849-1, IEC 61508, EN 60947-5-1
PL	up d (STOP 0)
Control category	up 3 (STOP 0)
DC	> 60% (STOP 0)
CCF	> 65 points
PFH value	≤ 2 x 10 <sup>-7</sup> /h (STOP 0)
- notice	up to max. 36500 switching cycles/year and at max. 60% contact load
SIL	up 2 (STOP 0)
Mission time	20 Years
- notice	

K	n-op/y	t-cycle
20 %	525.600	1,0 min
40 %	210.240	2,5 min
60 %	75.087	7,0 min
80 %	30.918	17,0 min
100 %	12.223	43,0 min

## Global Properties

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Product name	SRB 207AN
Standards	IEC/EN 60204-1, EN 60947-5-1, EN ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) 	Yes
Climatic stress	EN 60068-2-78
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	, self-cleaning, positive action
Weight	400 g
Start conditions	Automatic or Start button (Optional monitored)
Start input (Y/N)	Yes
Feedback circuit (Y/N)	Yes
Start-up test (Y/N)	No
Reset after disconnection of supply voltage (Y/N)	No
Automatic reset function (Y/N)	Yes
Reset with edge detection (Y/N)	Yes
Pull-in delay	
- ON delay with automatic start	120 ms
- ON delay with reset button	30 ms
Drop-out delay	
- Drop-out delay in case of emergency stop	≤ 20 ms

## Mechanical data

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Connection type	Screw connection
Cable section	
- Min. Cable section	0,25 mm <sup>2</sup>
- Max. Cable section	2.5 mm <sup>2</sup>
Pre-wired cable	rigid or flexible
Tightening torque for the terminals	0,6 Nm
Detachable terminals (Y/N)	Yes
Mechanical life	10.000.000 operations
Electrical lifetime	Derating curve available on request
restistance to shock	10 g / 11 ms
Resistance to vibration To EN 60068-2-6	10...55 Hz, Amplitude 0,35 mm, ± 15 %

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-25 °C
- Max. environmental temperature	+45 °C
Storage and transport temperature	
- Min. Storage and transport temperature	-40 °C
- Max. Storage and transport temperature	+85 °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 kV
- Overvoltage category	II To VDE 0110
- Degree of pollution	2 To VDE 0110

## Electromagnetic compatibility (EMC)

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EMC rating	conforming to EMC Directive
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## Electrical data

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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	48 V
- Max. rated AC voltage for controls, 50 Hz	240 V
Rated AC voltage for controls, 60 Hz	
- Min. rated AC voltage for controls, 60 Hz	48 V
- Max. rated AC voltage for controls, 60 Hz	240 V
Contact resistance	max. 100 mΩ
Power consumption	6.8 VA, plus signalling outputs Y1-Y6
Type of actuation	AC
Switch frequency	max. 3 Hz
Rated operating voltage $U_e$	48 ... 240 VAC
Operating current $I_e$	0,11 A
Frequency range	50 / 60 Hz
Electronic protection (Y/N)	Yes
Fuse rating for the operating voltage	secondary side: Internal electronic trip, tripping current > 0,12 A primary side: Safety fuse, tripping current > 1 A

## Inputs

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<b>Monitored inputs</b>	
- Short-circuit recognition (Y/N)	Yes
- Wire breakage detection (Y/N)	Yes
- Earth connection detection (Y/N)	Yes
Number of shutters	6 piece
Number of openers	6 piece
Cable length	1500 m with 1.5 mm <sup>2</sup> ; 2500 m with 2.5 mm <sup>2</sup>
Conduction resistance	max. 40 Ω

## Outputs

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Stop category	0
Number of safety contacts	2 piece
Number of auxiliary contacts	1 piece
Number of signalling outputs	6 piece
Switching capacity	
- Switching capacity of the safety contacts	max. 230 VAC, 6 A ohmic ( inductive in case of appropriate protective wiring)

- Switching capacity of the auxiliary contacts	24 VDC; 2 A
- Switching capacity of the signaling/diagnostic outputs	Y1-Y6: 24 VDC 20, mA
<b>Fuse rating</b>	
- Protection of the safety contacts	6.3 A slow blow
- Fuse rating for the auxiliary contacts	2 A slow blow
- Fuse rating for the signaling/diagnostic outputs	Internal electronic trip, tripping current > 0,2 A
<b>Utilisation category To EN 60947-5-1</b>	
	AC-15: 230 V / 6 A
	DC-13: 24 V / 6 A
Number of undelayed semi-conductor outputs with signaling function	0 piece
Number of undelayed outputs with signaling function (with contact)	7 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.	2 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

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LED switching conditions display (Y/N)	Yes
Number of LED's	3 piece
<b>LED switching conditions display</b>	
- The integrated LEDs indicate the following operating states.	
- Position relay K1	
- Position relay K2	
- Internal operating voltage $U_i$	

### Miscellaneous data

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Applications



Emergency-Stop button



Pull-wire emergency stop switches



Guard system



Safety sensor

### Dimensions

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Dimensions

- Width	45 mm
- Height	100 mm
- Depth	121 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 6 guard doors up to PL d and Category 3

Monitoring 6 guard door(s), each with a magnetic safety sensor of the BNS range

Start button (S) with edge detection

The feedback circuit monitors the position of the contactors K3 and K4.

**Automatic start:** The automatic start is programmed by connecting the feedback circuit to the terminals X1/X3. If the feedback circuit is not required, establish a bridge

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 (en)** 847 kB, 22.02.2010

[http://127.0.0.1/Bilddata/Si\\_baust/Pdf/srb207an230v/bedien/en/mrl\\_srb207an-230v\\_en.pdf](http://127.0.0.1/Bilddata/Si_baust/Pdf/srb207an230v/bedien/en/mrl_srb207an-230v_en.pdf)

**Operating instructions and Declaration of conformity (fr)** 457 kB, 20.01.2011

[http://127.0.0.1/Bilddata/Si\\_baust/Pdf/srb207an230v/bedien/fr/mrl\\_srb207an-230v\\_fr.pdf](http://127.0.0.1/Bilddata/Si_baust/Pdf/srb207an230v/bedien/fr/mrl_srb207an-230v_fr.pdf)

**Operating instructions and Declaration of conformity (it)** 455 kB, 20.01.2011

[http://127.0.0.1/Bilddata/Si\\_baust/Pdf/srb207an230v/bedien/it/mrl\\_srb207an-230v\\_it.pdf](http://127.0.0.1/Bilddata/Si_baust/Pdf/srb207an230v/bedien/it/mrl_srb207an-230v_it.pdf)

**Operating instructions and Declaration of conformity (jp)** 533 kB, 26.01.2011

[http://127.0.0.1/Bilddata/Si\\_baust/Pdf/srb207an230v/bedien/jp/mrl\\_srb207an-230v\\_jp.pdf](http://127.0.0.1/Bilddata/Si_baust/Pdf/srb207an230v/bedien/jp/mrl_srb207an-230v_jp.pdf)

**Operating instructions and Declaration of conformity (nl)** 458 kB, 20.01.2011

[http://127.0.0.1/Bilddata/Si\\_baust/Pdf/srb207an230v/bedien/nl/mrl\\_srb207an-230v\\_nl.pdf](http://127.0.0.1/Bilddata/Si_baust/Pdf/srb207an230v/bedien/nl/mrl_srb207an-230v_nl.pdf)

**Operating instructions and Declaration of conformity (es)** 455 kB, 20.01.2011

[http://127.0.0.1/Bilddata/Si\\_baust/Pdf/srb207an230v/bedien/es/mrl\\_srb207an-230v\\_es.pdf](http://127.0.0.1/Bilddata/Si_baust/Pdf/srb207an230v/bedien/es/mrl_srb207an-230v_es.pdf)

**Operating instructions and Declaration of conformity (de)** 903 kB, 25.06.2010

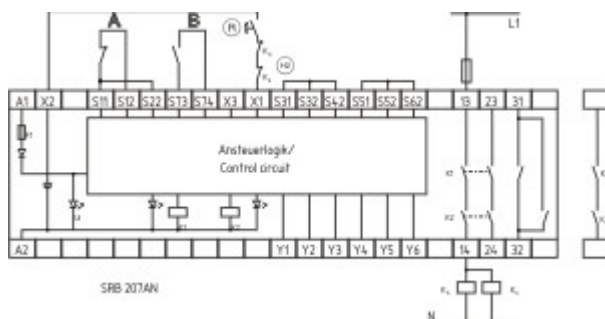
[http://127.0.0.1/Bilddata/Si\\_baust/Pdf/srb207an230v/bedien/de/mrl\\_srb207an-230v\\_de.pdf](http://127.0.0.1/Bilddata/Si_baust/Pdf/srb207an230v/bedien/de/mrl_srb207an-230v_de.pdf)

**Wiring example (99)** 18 kB, 04.08.2008

[http://127.0.0.1/Bilddata/Si\\_baust/srb207an/schaltun/ksrb2114.pdf](http://127.0.0.1/Bilddata/Si_baust/srb207an/schaltun/ksrb2114.pdf)

## Images

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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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