SIEMENS

Data sheet 3SK1211-2BB00

SIRIUS safety relay Output expansion 4RO with relay enabling circuits 4 NO contacts plus Relay signaling circuit 1 NC contact Us = 24 V AC Spring-type terminal (push-in)



General technical data	
Product brand name	SIRIUS
Product category	Safety relays
Product designation	Output expansion
Design of the product	Relay enabling circuits
Protection class IP of the enclosure	IP20
Protection against electrical shock	finger-safe
Insulation voltage rated value	300 V
Ambient temperature	
during storage	-40 +80 °C
 during operation 	-25 +60 °C
Air pressure acc. to SN 31205	90 kPa 106 kPa
Relative humidity during operation	10 95 %
Installation altitude at height above sea level maximum	2 000 m
Vibration resistance acc. to IEC 60068-2-6	5 500 Hz: 0.75 mm
Shock resistance	10g / 11 ms
Surge voltage resistance rated value	4 000 V
EMC emitted interference	IEC 60947-5-1, IEC 61000

Installation environment regarding EMC	This product is suitable for Class B environments and can also be used in domestic environments.
Overvoltage category	3
Degree of pollution	3
Reference code acc. to DIN EN 61346-2	F
Safety Integrity Level (SIL) acc. to IEC 61508	3
Performance level (PL) acc. to EN ISO 13849-1	е
Category acc. to EN ISO 13849-1	4
PFHD with high demand rate acc. to EN 62061	0.000000017 1/h
PFDavg with low demand rate acc. to IEC 61508	0.000001
T1 value for proof test interval or service life acc. to IEC 61508	20 y
Hardware fault tolerance acc. to IEC 61508	1
Safety device type acc. to IEC 61508-2	Type A
Number of outputs as contact-affected switching element	
• as NC contact	
 for signaling function delayed switching 	0
 for feedback circuit instantaneous contact 	1
 — safety-related instantaneous contact 	0
 — safety-related delayed switching 	0
• as NO contact	
 for signaling function instantaneous contact 	0
 for signaling function delayed switching 	0
 — safety-related instantaneous contact 	4
 — safety-related delayed switching 	0
Stop category acc. to DIN EN 60204-1	0
General technical data	
Type of electrical connection Plug-in socket	No
Operating frequency maximum	360 1/h
Switching capacity current of the NO contacts of the	
relay outputs	
• at DC-13	
— at 24 V	5 A
— at 115 V	0.2 A
— at 230 V	0.1 A
● at AC-15	
— at 24 V	5 A
— at 115 V	5 A
— at 230 V	5 A

contacts maximum

Thermal current of the switching element with

5 A

Type of voltage of the control supply voltage Control supply voltage frequency 1 rated value 2 rated value 60 Hz Control supply voltage 1 at AC - at 50 Hz - rated value 24 V - at 60 Hz Coperating range factor control supply voltage rated value of magnet coil 1 at AC - at 50 Hz - at 60 Hz - at 60 Hz	Operating current at 17 V minimum	5 mA	
the NO contacts of the relay outputs required Make time with automatic start • typical • at AC maximum Abuse time with automatic start after power failure • typical • typical • maximum Backslide delay time in the event of power failure • typical • maximum So maximum 50 ms Recovery time after power failure typical • maximum Recovery time after power failure typical • maximum AC Control supply voltage frequency • 1 rated value • 2 rated value • 2 rated value • at AC — at 50 Hz — rated value — at 60 Hz — rated value • 24 V Operating range factor control supply voltage rated value of magnet coll • at AC — at 50 Hz — at 60 Hz — at 60 Hz — at 60 Hz — at 60 Hz — at 50 Hz — at 60 Hz — at 50 Hz	Mechanical service life (switching cycles) typical	10 000 000	
Make time with automatic start • typical • at AC maximum Make time with automatic start after power failure • typical • maximum Backsilde delay time in the event of power failure • typical • maximum Backsilde delay time in the event of power failure • typical • maximum So ms Recovery time after power failure typical Control circuit/ Control Type of voltage of the control supply voltage Control supply voltage frequency • 1 rated value • 2 rated value Control supply voltage • at AC — at 50 Hz — rated value — at 60 Hz — rated value Operating range factor control supply voltage rated value of magnet coll • at AC — at 50 Hz — at 60 Hz — at 60 Hz — at 60 Hz — at 60 Hz	•		
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* typical * maximum * maximum * typical * typical * typical * maximum * typical * maximum * maximum * typical * typical * maximum * typical * typical * typical * maximum * typical		40 ms	
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		40 ms	
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Type of voltage of the control supply voltage Control supply voltage frequency 1 rated value 2 rated value 60 Hz Control supply voltage 1 at AC - at 50 Hz - rated value 24 V Operating range factor control supply voltage rated value of magnet coil 1 at AC - at 50 Hz - at 60 Hz 0.85 1.1 Power loss [W] typical Required spacing for grounded parts at the side Mounting type Width Height Depth Control supply voltage 50 Hz 60 Hz 24 V 0.85 1.1 25 W 50 mm	Recovery time after power failure typical	0.06 s	
Control supply voltage frequency	Control circuit/ Control		
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- at 60 Hz - rated value Operating range factor control supply voltage rated value of magnet coil ● at AC - at 50 Hz - at 60 Hz Power loss [W] typical Installation/ mounting/ dimensions Mounting position Required spacing for grounded parts at the side Required spacing with side-by-side mounting at the side Mounting type Screw and snap-on mounting Width 4 22.5 mm Height 5 mm Popth Connections/Terminals	— at 50 Hz		
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Operating range factor control supply voltage rated value of magnet coil • at AC — at 50 Hz — at 60 Hz Power loss [W] typical any Required spacing for grounded parts at the side Required spacing with side-by-side mounting at the side Mounting type Screw and snap-on mounting Width 422.5 mm Height Depth Connections/Terminals	— at 60 Hz		
value of magnet coil	— rated value	24 V	
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Width 22.5 mm Height 100 mm Depth 121.6 mm Connections/Terminals		0 mm	
Height 100 mm Depth 121.6 mm Connections/Terminals	Mounting type	screw and snap-on mounting	
Depth 121.6 mm Connections/Terminals	Width	22.5 mm	
Connections/Terminals	Height	100 mm	
	Depth	121.6 mm	
Type of electrical connection Push-in terminal	Connections/Terminals		
	Type of electrical connection	Push-in terminal	

Type of connectable conductor cross-sections	
• solid	1x (0.5 1.5 mm²), 2x (0.5 1.5 mm²)
• finely stranded	
 — with core end processing 	1x (0.5 1.0 mm²), 2x (0.5 1.0 mm²)
 without core end processing 	1x (0.5 1.5 mm²), 2x (0.5 1.5 mm²)
Type of connectable conductor cross-sections at AWG conductors	
• solid	1x (20 16), 2x (20 16)
• stranded	1x (20 16), 2x (20 16)

Product Function	
Suitability for operation Device connector 3ZY12	No
Suitability for use	
 safety-related circuits 	Yes

Certificates/approvals

Certificate of suitability

TÜV (German technical inspectorate) certificate
 Yes

• UL approval Yes

General Product Approval	EMC	Functional
		Safety/Safety
		of Machinery











Type Examination
Certificate

Declaration of	Conformity	Test Certific- ates	other	Railway	
$C \in$	Miscellaneous	Type Test Certificates/Test Report	Confirmation	Confirmation	

Further information

EG-Konf.

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3SK1211-2BB00

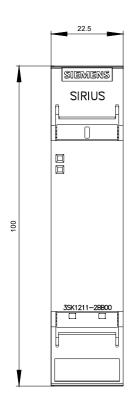
Cax online generator

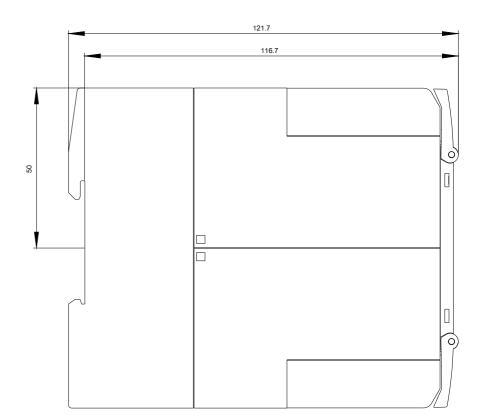
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK1211-2BB00

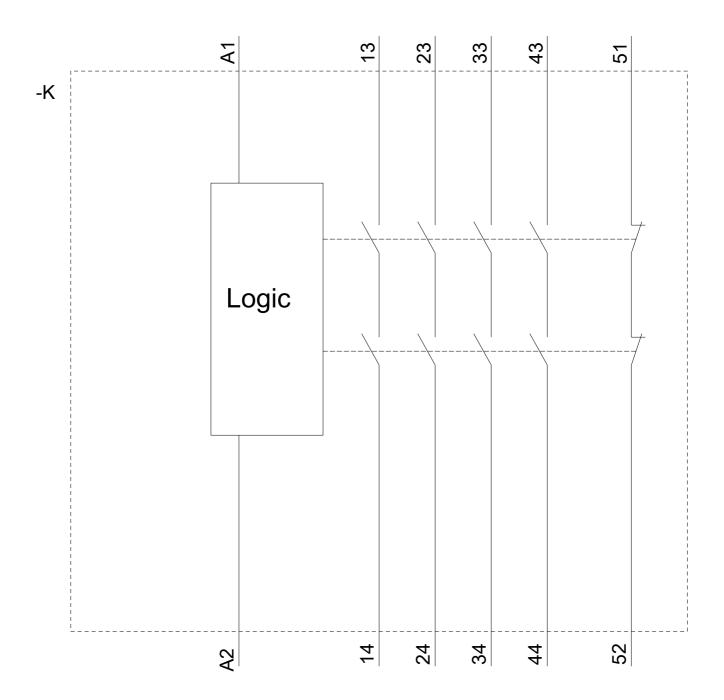
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

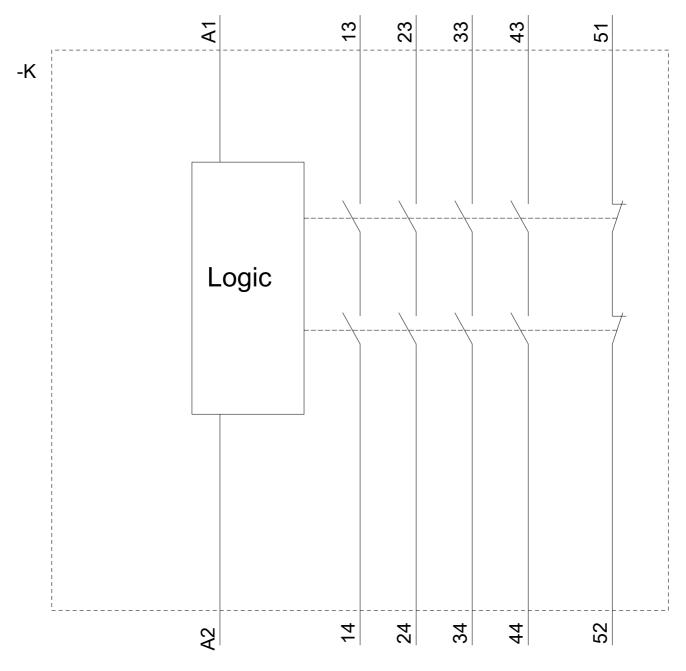
https://support.industry.siemens.com/cs/ww/en/ps/3SK1211-2BB00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK1211-2BB00&lang=en









last modified: 02/18/2019