SIEMENS

Data sheet 3SK1211-1BW20

Figure similar

SIRIUS SAFETY RELAY OUTPUT EXTENSION 4RO WITH RELAY ENABLING CIRCUITS 4 NO CONTACTS + RELAY FEEDBACK CIRCUIT 1 NC CONTACT US = 115-230 V AC SCREW CONNECTION

General technical data:		
product brand name		SIRIUS
Product designation		safety relays
Design of the product		Expansion unit
Protection class IP of the enclosure		IP20
Protection against electrical shock		finger-safe
Insulation voltage Rated value	V	300
Ambient temperature		
• during storage	°C	-40 ... +80
• during operation	°C	-25 ... +60
Air pressure acc. to SN 31205	kPa	90 ... 106
Relative humidity during operation	%	10 ... 95
Installation altitude at height above sea level maximum	m	2 000
Vibration resistance acc. to IEC 60068-2-6		5 ... 500 Hz: 0,75 mm
Shock resistance		10g / 11 ms
Surge voltage resistance Rated value	V	4 000
EMC emitted interference		IEC 60947-5-1, Class A
Installation environment regarding EMC		This product is suitable for Class A environments only. It can cause undesired radio-frequency interference in residential environments. If this is the case, the user must take appropriate measures.
Overvoltage category		Installation category III
Degree of pollution		3
Equipment marking acc. to DIN EN 61346-2		F
Safety Integrity Level (SIL) acc. to IEC 61508		SIL3

Performance level (PL) acc. to EN ISO 13849-1		e
Category acc. to EN ISO 13849-1		4
PFHD with high demand rate acc. to EN 62061	1/h	0.0000000017
Average probability of failure on demand (PFDavg) with low demand rate acc. to IEC 61508	1/y	0.000001
T1 value for proof test interval or service life acc. to IEC 61508	y	20
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 instantaneous contact		0
— for signaling function delayed switching		0
— 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	1/h	360
Switching capacity current of the NO contacts of the relay outputs		
• at DC-13		
— at 24 V	A	5
— at 115 V	A	0.2
— at 230 V	A	0.1
• at AC-15		
— at 24 V	A	5
— at 115 V	A	5
— at 230 V	A	5
Thermal current of the switching element with contacts maximum	A	5
Operating current at 17 V minimum	mA	5
Mechanical service life (switching cycles) typical		10 000 000
Design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required		gL/gG: 6A or circuit breaker type A: 3A or circuit breaker type B: 2A or circuit breaker type C: 1A

Make time with automatic start		
• typical	ms	35
• with AC maximum	ms	35
Make time with automatic start after power failure		
• typical	ms	35
• maximum	ms	35
Backslide delay time in the event of power failure		
• typical	ms	200
• maximum	ms	300
Recovery time after power failure typical	s	0.32

Control circuit/ Control:		
Type of voltage of the control supply voltage		AC/DC
Control supply voltage frequency		
• 1 Rated value	Hz	50
• 2 Rated value	Hz	60
Control supply voltage		
• for DC		
— Rated value	V	110 ... 240
• with AC		
— at 50 Hz		
— Rated value	V	110 ... 240
— at 60 Hz		
— Rated value	V	110 ... 240
Operating range factor control supply voltage rated value of the magnet coil		
• with AC		
— at 50 Hz		0.85 ... 1.1
— at 60 Hz		0.85 ... 1.1
• for DC		0.85 ... 1.1
Active power loss typical	W	2

Installation/ mounting/ dimensions:		
mounting position		any
Required spacing for grounded parts at the side	mm	5
Required spacing with side-by-side mounting at the side	mm	0
Mounting type		screw and snap-on mounting
Width	mm	22.5
Height	mm	100
Depth	mm	121.6

Connections/ Terminals:		
Type of electrical connection		screw-type terminals

Type of connectable conductor cross-section		
• solid		1x (0.5 ... 2.5 mm²), 2x (1.0 ... 1.5 mm²)
• finely stranded		
— with core end processing		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
Type of connectable conductor cross-section for AWG conductors		
• solid		1x (20 ... 14), 2x (18 ... 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	Declaration of Conformity
CCC, CSA, UL, C-TICK		Type Examination	EG-Konf.

Test Certificates	other
Type Test Certificates/Test Report	Confirmation

Further information

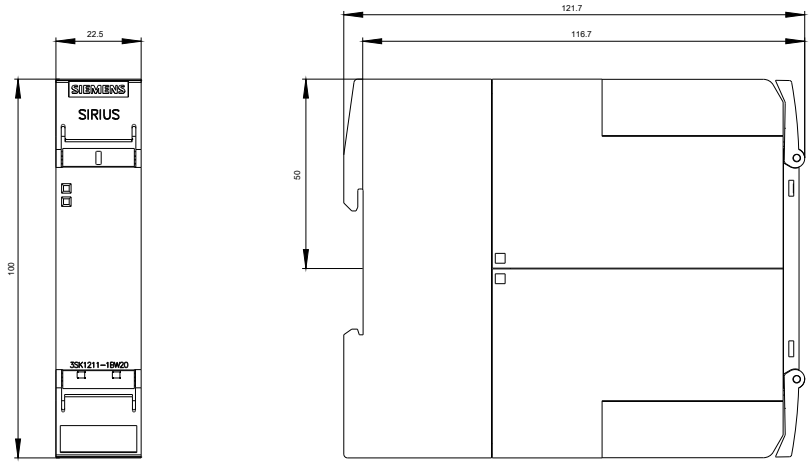
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

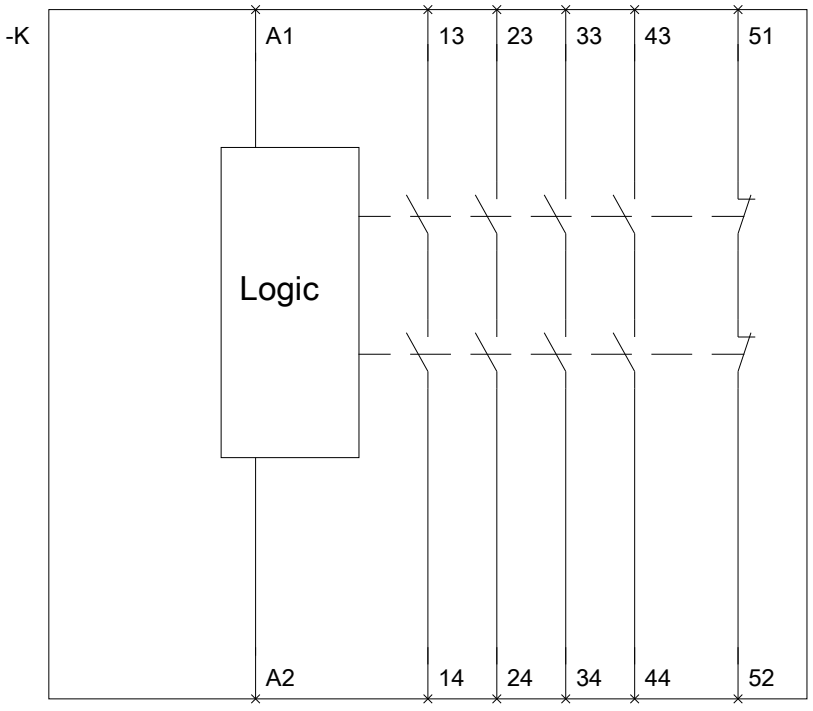
Industry Mall (Online ordering system)
http://www.siemens.com/industrymall

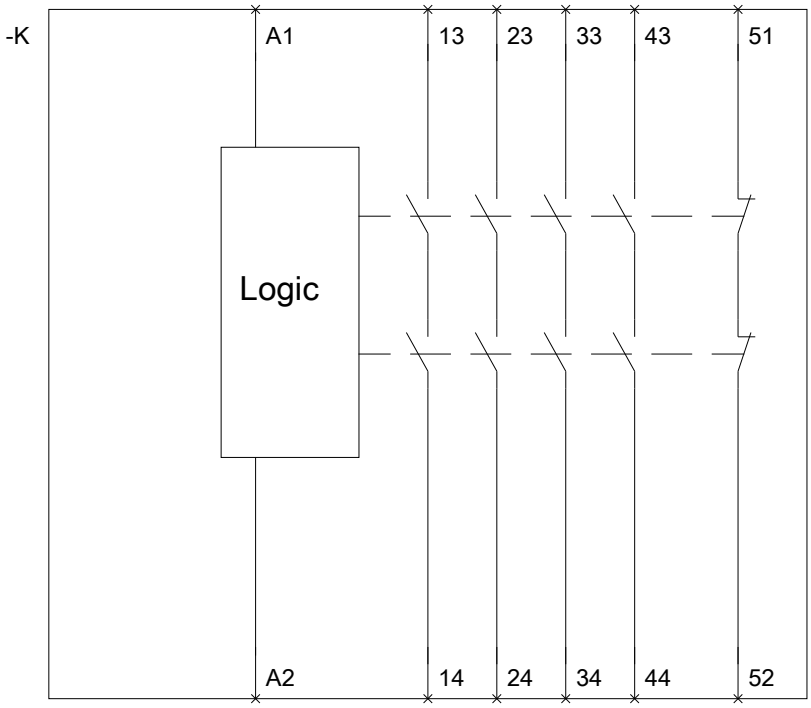
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK12111BW20

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3SK12111BW20/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/index.aspx?attID9=3SK12111BW20&lang=en







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