SIEMENS

Product data sheet 3SK1211-1BB40

SIRIUS SAFETY RELAY OUTPUT EXTENSION 4RO WITH RELAY ENABLING CIRCUITS 4 NO CONTACTS + RELAY FEEDBACK CIRCUIT 1 NC CONTACT US = 24 V DC 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, IEC 61000

Installation environment regarding EMC		This product is suitable for Class B environments and can also be used in domestic environments.
Overvoltage category		Installation category III
Degree of pollution		3
Reference code		
• 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	0.17000000000000004E-8
Average probability of failure on demand (PFDavg) / with low demand rate / acc. to IEC 61508	1/y	0.1E-5
T1 value / for proof test interval or service life / acc. to IEC 61508	a	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
• as NO contact / for signaling function / instantaneous contact		0
• as NC contact / for signaling function / delayed switching		0
• as NO contact / for signaling function / delayed switching		0
• as NC contact / safety-related / instantaneous contact		0
• as NO contact / safety-related / instantaneous contact		4
• as NC contact / safety-related / delayed switching		0
• as NO contact / safety-related / delayed switching		0
Stop category / acc. to DIN EN 60204-1		0

General technical data:		
Design of the 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	15
• for DC / maximum	ms	30
Make time / with automatic start / after power failure		
• typical	ms	15
• maximum	ms	30
Backslide delay time / in the event of power failure		
• typical	ms	10
• maximum	ms	15
Recovery time / after power failure / typical	s	0.015

Control circuit/ Control:

Type of voltage / of the control supply voltage		DC
Control supply voltage		
• for DC / Rated value	V	24
Operating range factor control supply voltage rated value / of the magnet coil		
• for DC		0.8 … 1.2
Active power loss / typical	W	2.5

Installation/ mounting/ dimensions:

mounting position		any
Spacing required for grounded parts / at the side	mm	5
Spacing required 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:

Design of the 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:

Product function / parameterizable		undelayed/delayed (only with system connector)
Suitability for use / Device connector 3ZY12		Yes
Suitability for use		
• safety-related circuits		Yes

Certificates/ approvals:

Certificate of suitability / TÜV (German technical inspectorate) certificate		Yes
Certificate of suitability / UL approval		Yes

General Product Approval	EMC	Declaration of Conformity	Test Certificates
CCC CSA UL	C-TICK	EG-Konf.	Type Test Certificates/Test Report

Further information:

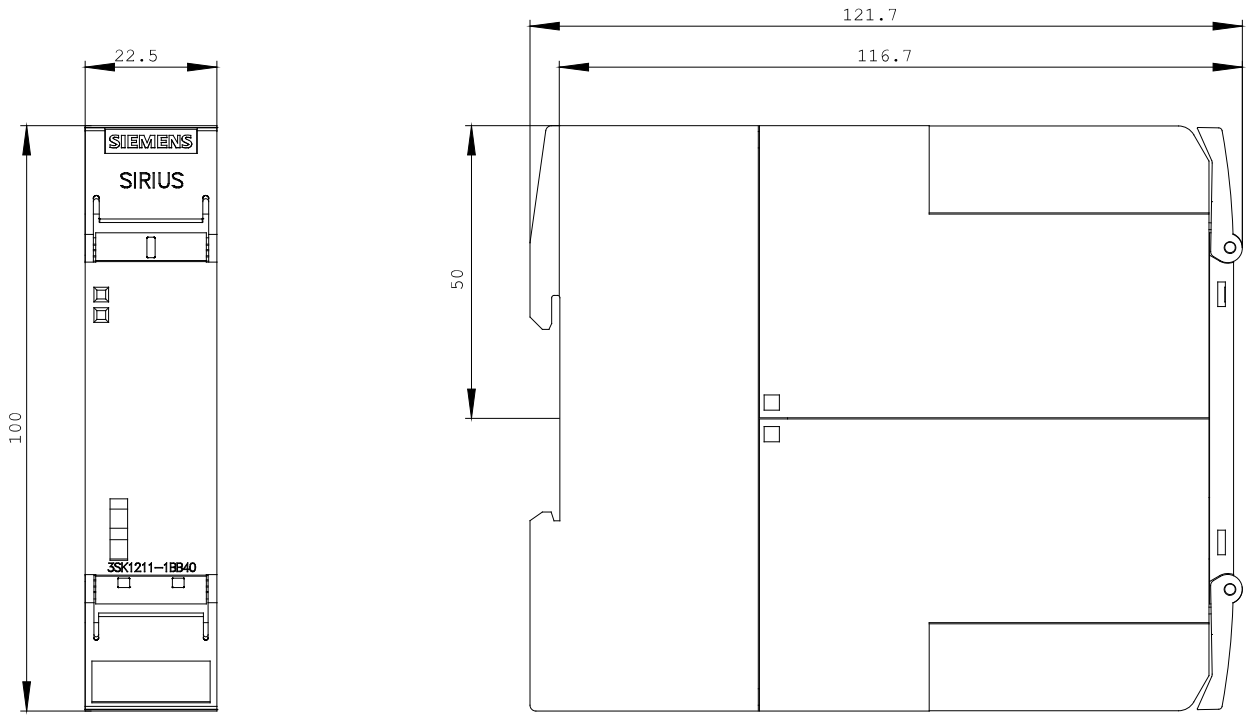
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

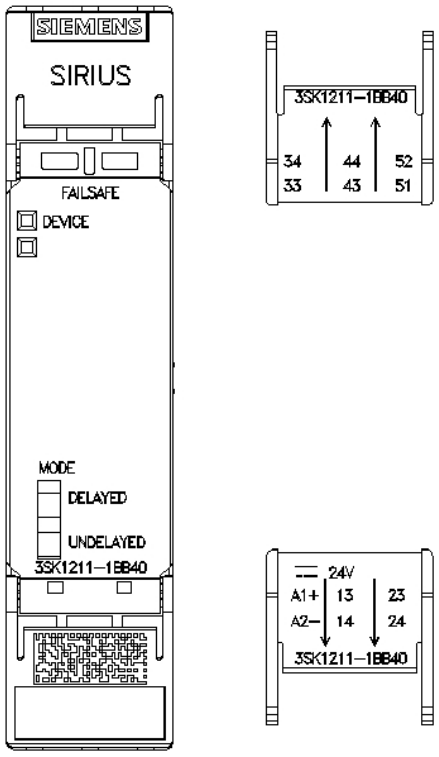
Industry Mall (Online ordering system)
http://www.siemens.de/industrial-controls/mall

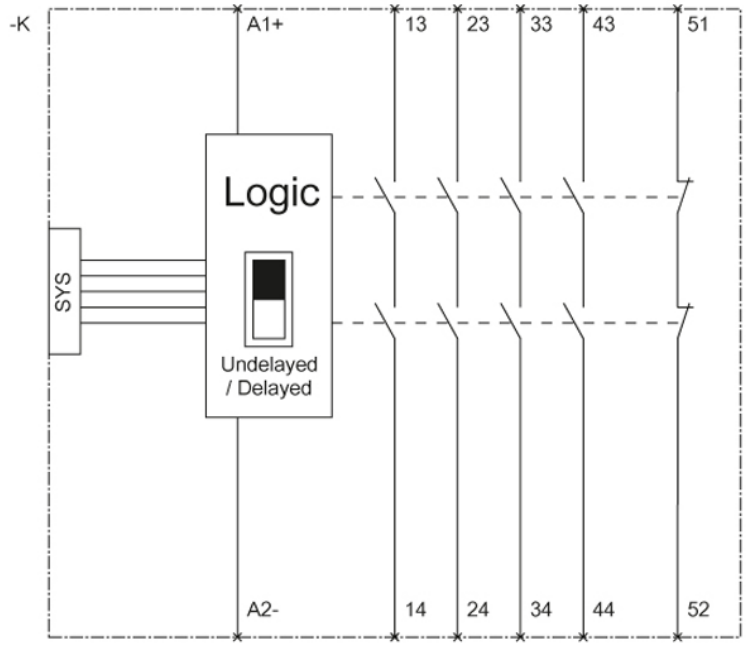
Cax online generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3SK1211-1BB40/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3SK1211-1BB40







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