



SIRIUS safety relay Output expansion 4RO with relay enabling circuits 4 NO contacts plus Relay signaling circuit 1 NC contact  $U_s = 24 \text{ V DC}$  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
touch 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	900 ... 1 060 hPa
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
reference code acc. to IEC 81346-2	F
power loss [W] maximum	2.5 W
Safety Integrity Level (SIL) acc. to IEC 61508	3
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	0.0000000017 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
<b>number of outputs as contact-less semiconductor switching element</b>	
• for signaling function	
— delayed switching	0
<b>stop category acc. to DIN EN 60204-1</b>	0
<b>General technical data</b>	
<b>type of electrical connection plug-in socket</b>	No
<b>operating frequency maximum</b>	360 1/h
<b>switching capacity current of the NO contacts of the relay outputs</b>	
• 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
<b>thermal current of the switching element with contacts maximum</b>	5 A
<b>operational current at 17 V minimum</b>	5 mA
<b>total current maximum</b>	12 A
<b>mechanical service life (switching cycles) typical</b>	10 000 000
<b>design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required</b>	gL/gG: 6A or circuit breaker type A: 3A or circuit breaker type B: 2A or circuit breaker type C: 1A
<b>make time with automatic start</b>	
• typical	15 ms
• at DC maximum	30 ms
<b>make time with automatic start after power failure</b>	
• typical	15 ms
• maximum	30 ms
<b>backslide delay time in the event of power failure</b>	
• typical	10 ms
• maximum	15 ms
<b>recovery time after power failure typical</b>	0.015 s
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	DC
<b>control supply voltage</b>	
• at DC	
— rated value	24 V
<b>operating range factor control supply voltage rated value of magnet coil</b>	
• at DC	0.8 ... 1.2
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>required spacing for grounded parts at the side</b>	5 mm
<b>required spacing with side-by-side mounting at the side</b>	0 mm
<b>fastening method</b>	screw and snap-on mounting
<b>width</b>	22.5 mm
<b>height</b>	100 mm
<b>depth</b>	121.6 mm
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	Push-in terminal

<b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded <ul style="list-style-type: none"> <li>— with core end processing</li> <li>— without core end processing</li> </ul> </li> </ul>	1x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )  1x (0.5 ... 1.0 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> ) 1x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
<b>type of connectable conductor cross-sections at AWG cables</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	1x (20 ... 16), 2x (20 ... 16) 1x (20 ... 16), 2x (20 ... 16)
<b>Product Function</b>	
<b>product function parameterizable</b>	undelayed/delayed (only with system connector)
<b>suitability for operation device connector 3ZY12</b>	Yes
<b>suitability for use</b> <ul style="list-style-type: none"> <li>• safety-related circuits</li> </ul>	Yes
<b>Certificates/ approvals</b>	
<b>certificate of suitability</b> <ul style="list-style-type: none"> <li>• TÜV (German technical inspectorate) certificate</li> <li>• UL approval</li> </ul>	Yes Yes
<b>General Product Approval</b>	<b>EMC</b>  <b>Functional Safety/Safety of Machinery</b>



[Type Examination Certificate](#)

<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>Marine / Shipping</b>
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[Type Test Certificates/Test Report](#)



<b>other</b>	<b>Railway</b>
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[Confirmation](#)

[Confirmation](#)

#### Further information

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

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3SK1211-2BB40>

Cax online generator

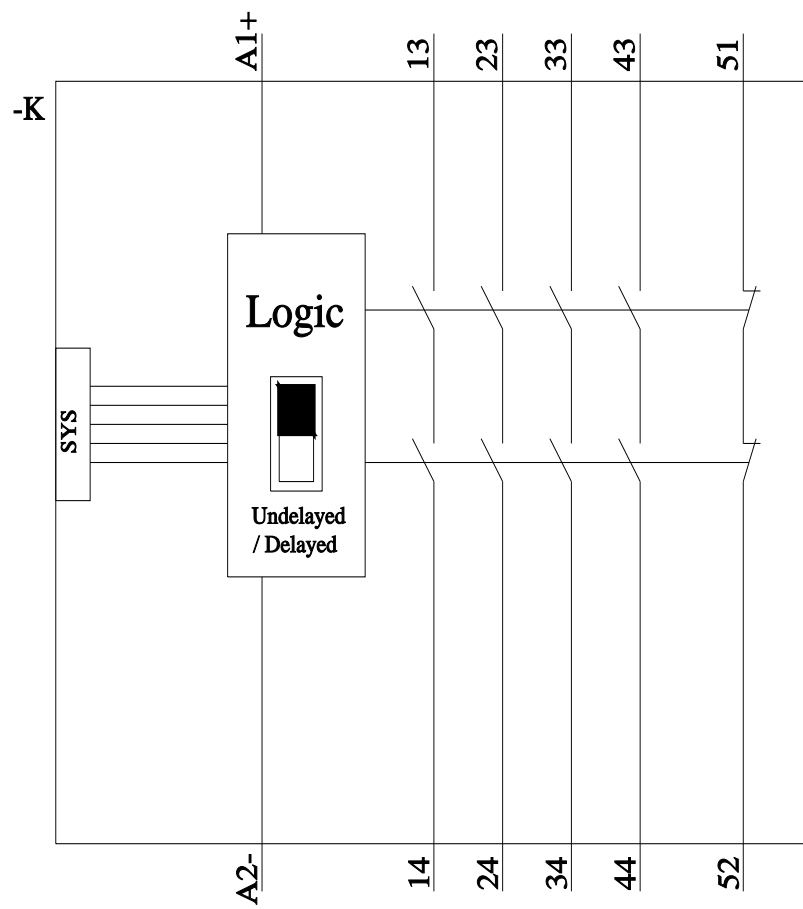
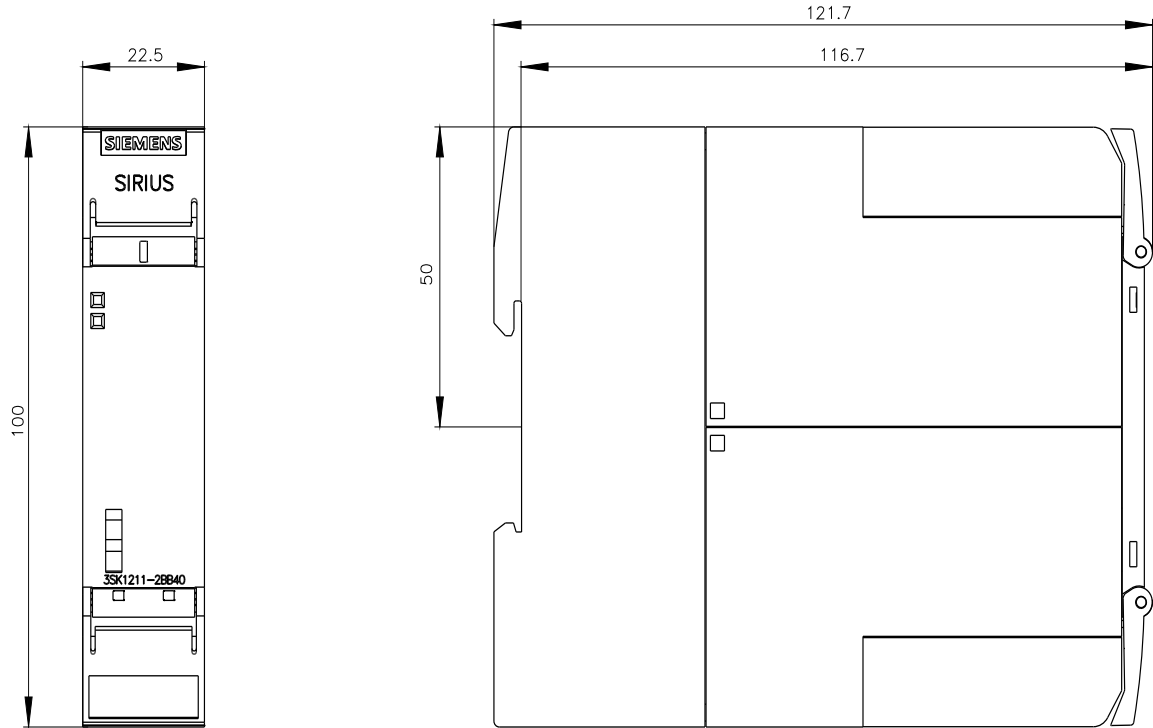
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK1211-2BB40>

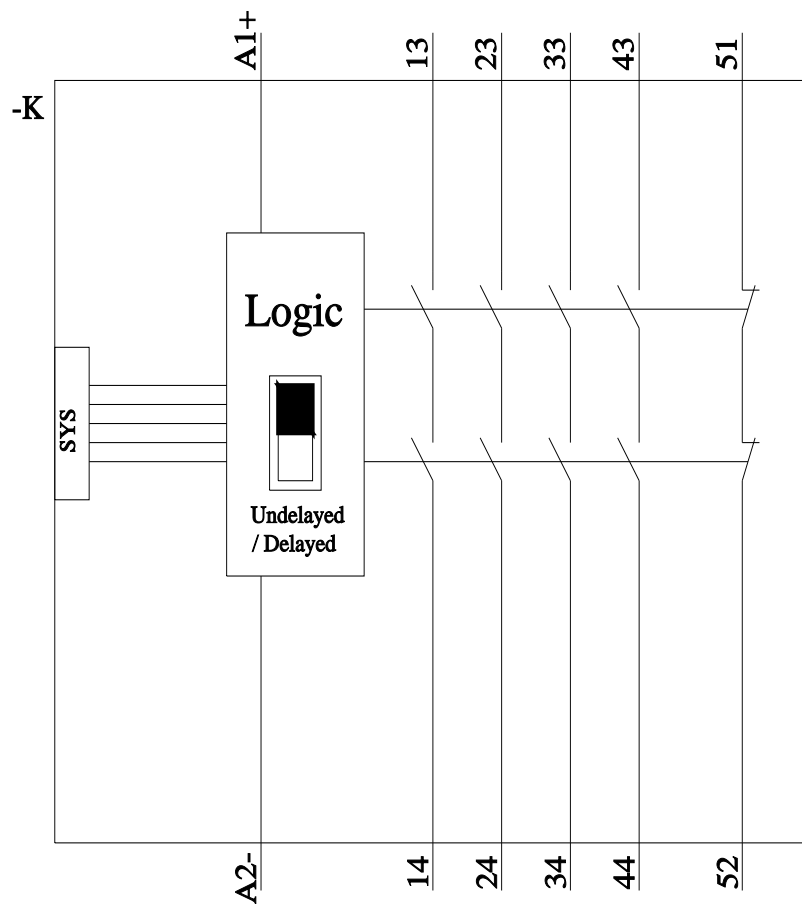
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3SK1211-2BB40>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3SK1211-2BB40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK1211-2BB40&lang=en)





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