



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

Figure similar

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	300 V
Ambient temperature	
• during storage	-40 ... +80 °C
• during operation	-25 ... +60 °C
Air pressure acc. to SN 31205	90 ... 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	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

<b>PFHD with high demand rate acc. to EN 62061</b>	0.0000000017 1/h
<b>Average probability of failure on demand (PFDavg) with low demand rate acc. to IEC 61508</b>	0.000001 1/y
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	20 y
<b>Hardware fault tolerance acc. to IEC 61508</b>	1
<b>Safety device type acc. to IEC 61508-2</b>	Type A
<b>Number of outputs as contact-affected switching element</b>	
• 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
<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>Operating current at 17 V minimum</b>	5 mA
<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

<ul style="list-style-type: none"> <li>• for DC maximum</li> </ul>	30 ms
<b>Make time with automatic start after power failure</b>	
<ul style="list-style-type: none"> <li>• typical</li> </ul>	15 ms
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	30 ms
<b>Backslide delay time in the event of power failure</b>	
<ul style="list-style-type: none"> <li>• typical</li> </ul>	10 ms
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	15 ms
<b>Recovery time after power failure typical</b>	0.015 s

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage</b>	
<ul style="list-style-type: none"> <li>• for DC</li> </ul>	
— Rated value	24 V
<b>Operating range factor control supply voltage rated value of the magnet coil</b>	
<ul style="list-style-type: none"> <li>• for DC</li> </ul>	0.8 ... 1.2
<b>Active power loss typical</b>	2.5 W

#### Installation/ mounting/ dimensions:

<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>Mounting type</b>	screw and snap-on mounting
<b>Width</b>	22.5 mm
<b>Height</b>	100 mm
<b>Depth</b>	121.6 mm

#### Connections/ Terminals:

<b>Type of electrical connection</b>	screw-type terminals
<b>Type of connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (1.0 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• finely stranded</li> </ul>	
— with core end processing	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )
<b>Type of connectable conductor cross-section for AWG conductors</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	1x (20 ... 14), 2x (18 ... 16)

#### Product Function:

<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

#### Certificates/ approvals:

<b>Certificate of suitability</b>	
<ul style="list-style-type: none"> <li>• TÜV (German technical inspectorate) certificate</li> <li>• UL approval</li> </ul>	<p>Yes</p> <p>Yes</p>

<b>General Product Approval</b>	<b>EMC</b>	<b>Functional Safety/Safety of Machinery</b>	<b>Declaration of Conformity</b>
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[Type Examination](#)



<b>Test Certificates</b>	<b>other</b>
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[Type Test Certificates/Test Report](#)

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#### 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**

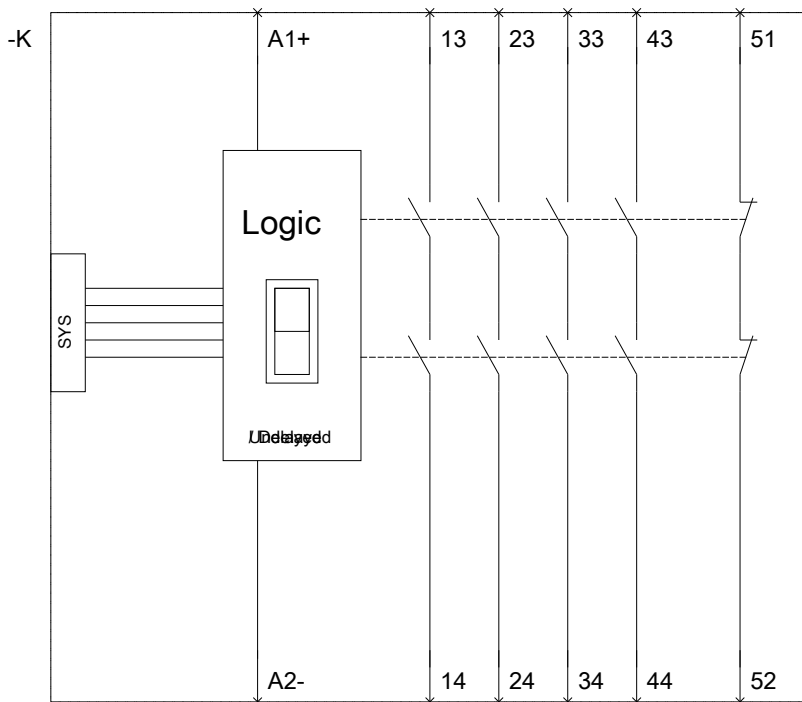
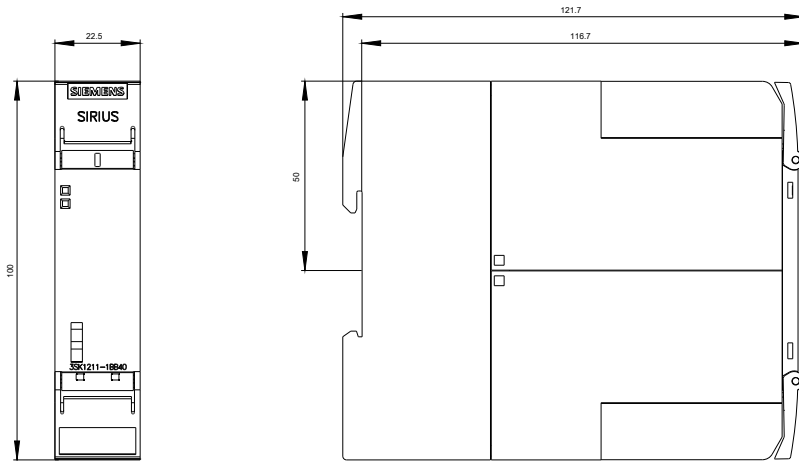
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK12111BB40>

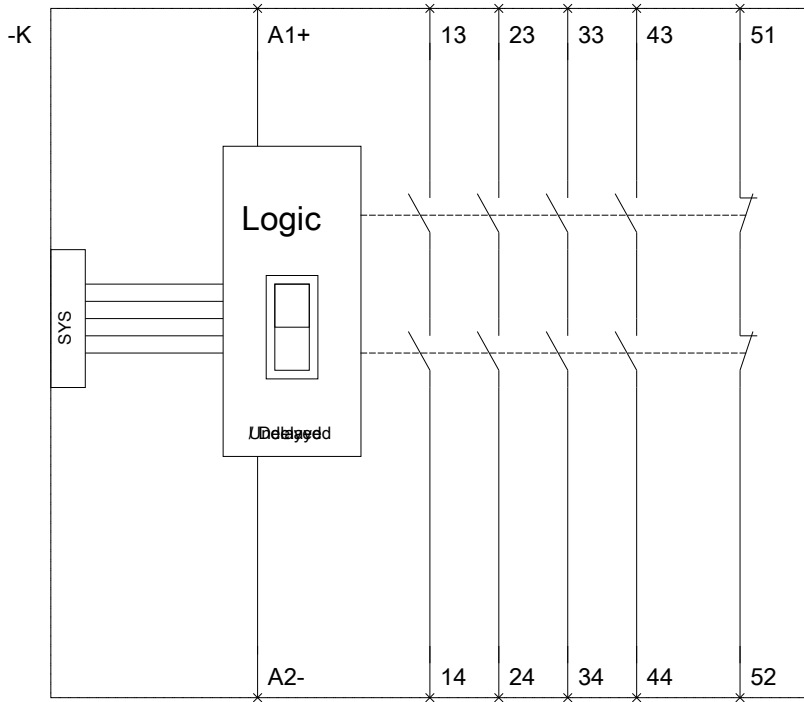
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3SK12111BB40>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3SK12111BB40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK12111BB40&lang=en)





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