

SIRIUS safety relay Output expansion 4RO with relay enabling circuits 4 NO contacts plus Relay signaling circuit 1 NC contact Us = 24 V AC screw terminal



Figure similar

General technical data	
product brandname	SIRIUS
Product category	Safety relays
Product designation	Output expansion
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

<b>Installation environment regarding EMC</b>	This product is suitable for Class B environments and can also be used in domestic environments.
<b>Overvoltage category</b>	3
<b>Degree of pollution</b>	3
<b>Equipment marking acc. to DIN EN 61346-2</b>	F
<b>Safety Integrity Level (SIL) acc. to IEC 61508</b>	3
<b>Performance level (PL) acc. to EN ISO 13849-1</b>	e
<b>Category acc. to EN ISO 13849-1</b>	4
<b>PFHD with high demand rate acc. to EN 62061</b>	0.0000000017 1/h
<b>PFDavg with low demand rate acc. to IEC 61508</b>	0.000001
<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
<ul style="list-style-type: none"> <li>• Number of outputs <ul style="list-style-type: none"> <li>— as contact-affected switching element as NC contact for signaling function delayed switching</li> <li>— as contact-based switch block as NC contact for feedback circuit instantaneous switching</li> <li>— as contact-affected switching element as NC contact safety-related instantaneous contact</li> <li>— as contact-affected switching element as NC contact safety-related delayed switching</li> </ul> </li> <li>• Number of outputs as contact-affected switching element as NO contact <ul style="list-style-type: none"> <li>— for signaling function instantaneous contact</li> <li>— for signaling function delayed switching</li> <li>— safety-related instantaneous contact</li> <li>— safety-related delayed switching</li> </ul> </li> </ul>	<p>0</p> <p>1</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>4</p> <p>0</p>
<b>Stop category acc. to DIN EN 60204-1</b>	0

General technical data	
<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>	
<ul style="list-style-type: none"> <li>• at DC-13 <ul style="list-style-type: none"> <li>— at 24 V</li> <li>— at 115 V</li> <li>— at 230 V</li> </ul> </li> <li>• at AC-15</li> </ul>	<p>5 A</p> <p>0.2 A</p> <p>0.1 A</p>

— 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	25 ms
• at AC maximum	40 ms
<b>Make time with automatic start after power failure</b>	
• typical	25 ms
• maximum	40 ms
<b>Backslide delay time in the event of power failure</b>	
• typical	45 ms
• maximum	50 ms
<b>Recovery time after power failure typical</b>	0.06 s

#### Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>	AC
<b>Control supply voltage frequency</b>	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
<b>Control supply voltage</b>	
• at AC	
— at 50 Hz	
— rated value	24 V
— at 60 Hz	
— rated value	24 V
<b>Operating range factor control supply voltage rated value of magnet coil</b>	
• at AC	
— at 50 Hz	0.85 ... 1.1
— at 60 Hz	0.85 ... 1.1
<b>Power loss [W] 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

Width	22.5 mm
Height	100 mm
Depth	121.6 mm

### Connections/Terminals

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

### Product Function

Suitability for operation Device connector 3ZY12	No
Suitability for use	
<ul style="list-style-type: none"> <li>• safety-related circuits</li> </ul>	Yes

### Certificates/approvals

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

General Product Approval	EMC	Functional Safety/Safety of Machinery
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[Type Examination](#)

Declaration of Conformity	Test Certificates	other	Railway
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[Type Test Certificates/Test Report](#)

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[Confirmation](#)

### Further information

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

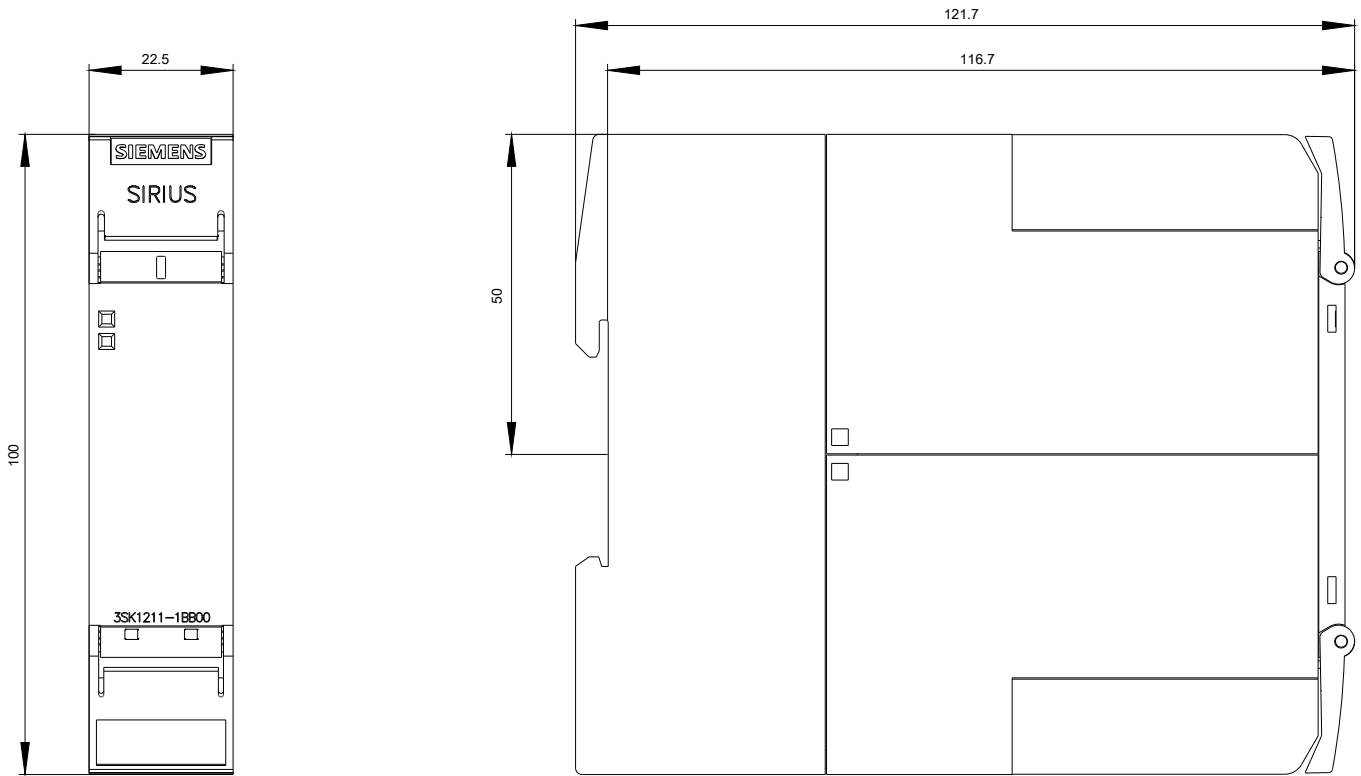
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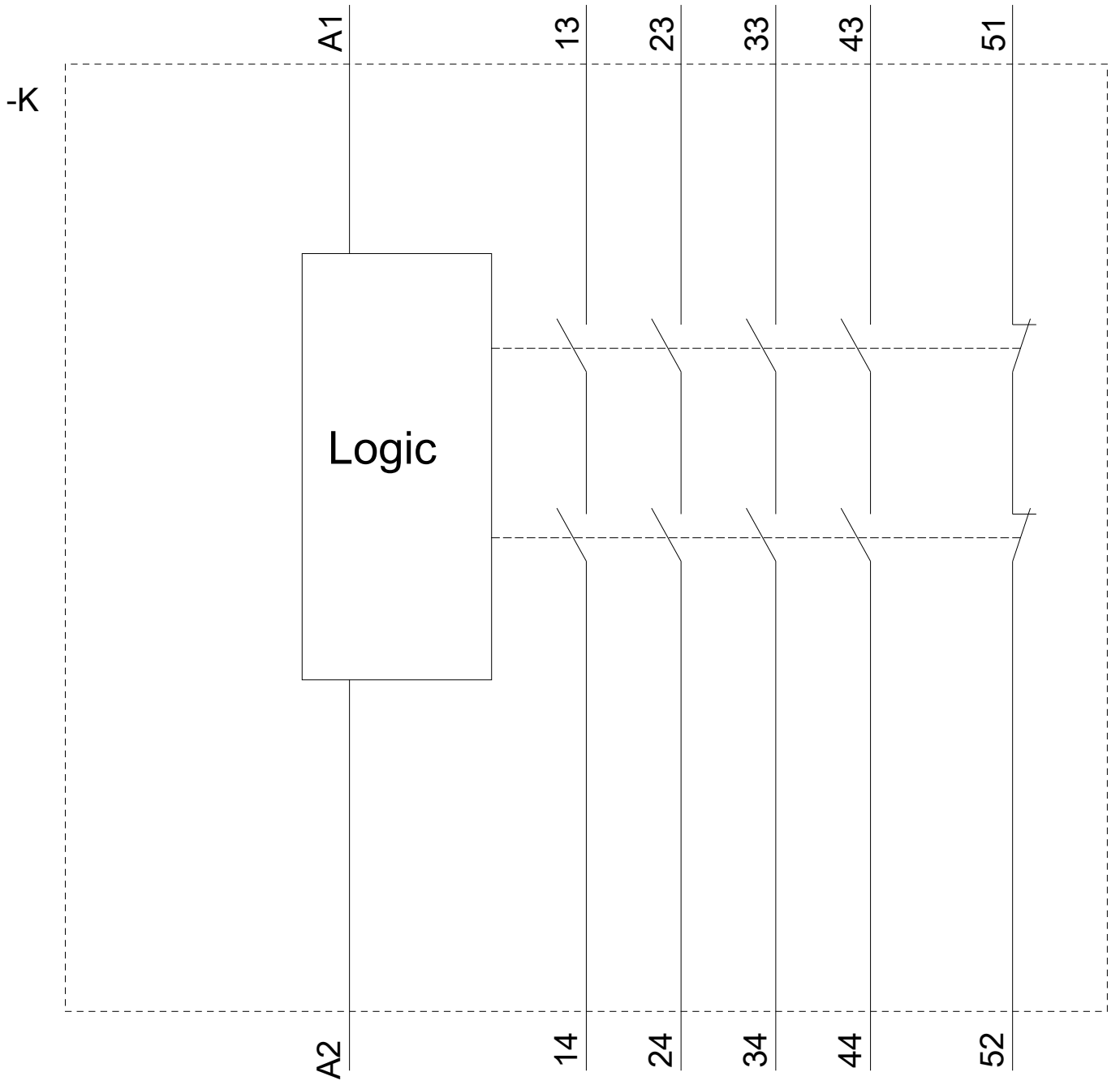
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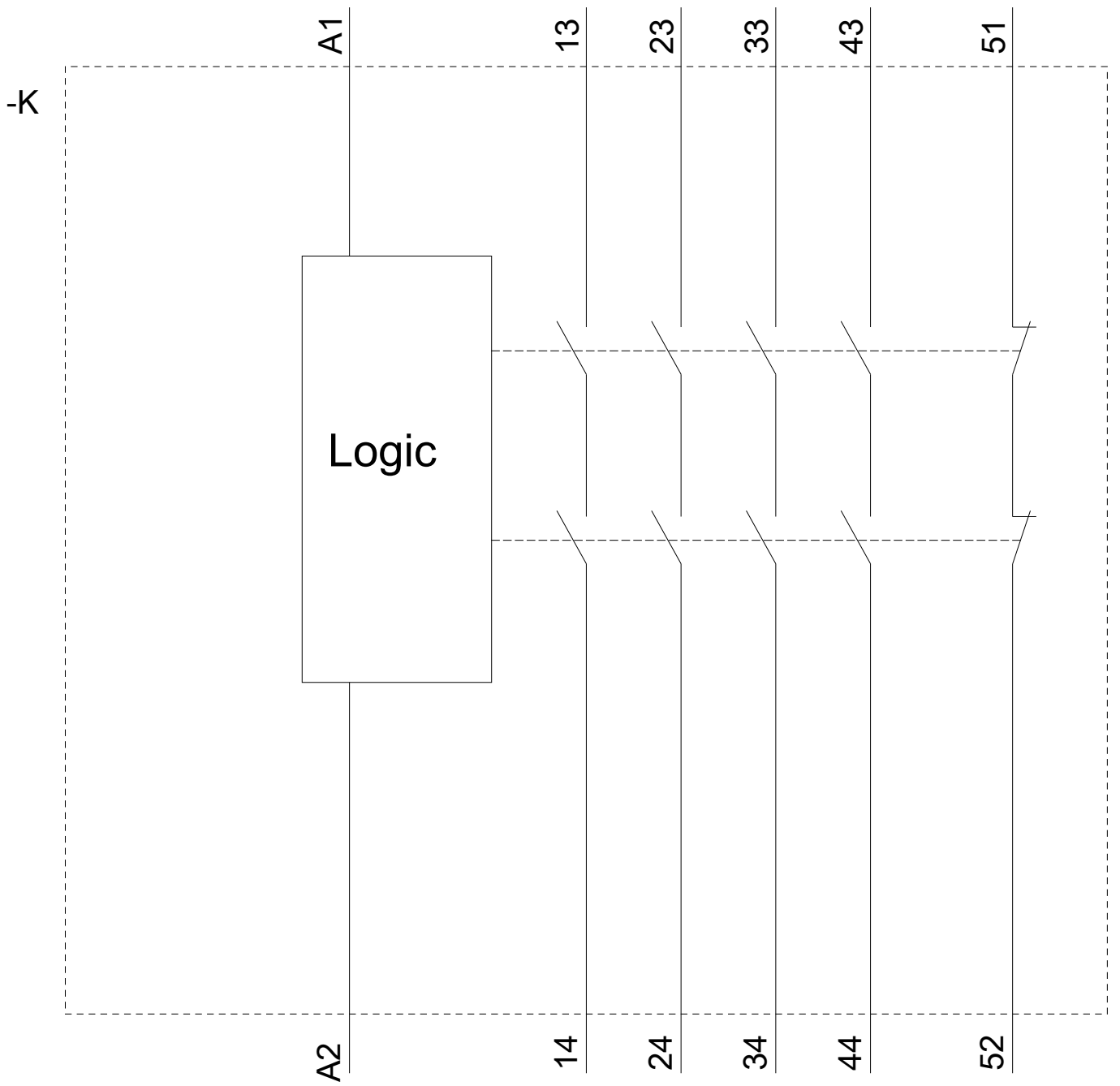
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**Cax online generator**

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