



Figure similar

SIRIUS SAFETY RELAY OUTPUT EXTENSION 3RO POWER, WITH RELAY ENABLING CIRCUITS 3 NO CONTACTS + RELAY FEEDBACK CIRCUIT 1 NC CONTACT US = 115 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		5 g / 10 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
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	0.000000001
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		
<ul style="list-style-type: none"> <li>• as NC 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> <li>• 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>		0 0 0 0 0 0 3 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		
<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 <ul style="list-style-type: none"> <li>— at 24 V</li> <li>— at 115 V</li> <li>— at 230 V</li> </ul> </li> </ul>	A A A A A A	6 1.1 0.55 10 10 10
Thermal current of the switching element with contacts maximum	A	10
Operating current at 17 V minimum	mA	5
Mechanical service life (switching cycles) typical		10 000 000
maximum permissible voltage for safe isolation between electronic evaluation device and enabling circuit acc. to EN 60947-1	V	300

<b>Design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required</b>		gL/gG: 16 A or MCB type A: 6 A or MCB type B: 4 A or MCB type C: 4 A
Make time with automatic start		
• typical	ms	10
• with AC maximum	ms	15
Make time with automatic start after power failure		
• typical	ms	10
• maximum	ms	15
Backslide delay time in the event of power failure		
• typical	ms	15
• maximum	ms	15
<b>Recovery time after power failure typical</b>	s	0

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>		AC
<b>Control supply voltage frequency</b>		
• 1 Rated value	Hz	50
• 2 Rated value	Hz	60
<b>Control supply voltage</b>		
• with AC		
— at 50 Hz		
— Rated value	V	115
— at 60 Hz		
— Rated value	V	115
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
<b>Active power loss typical</b>	W	4

#### Installation/ mounting/ dimensions:

<b>mounting position</b>		on horizontal standard mounting rail
<b>Required spacing for grounded parts at the side</b>	mm	5
<b>Required spacing with side-by-side mounting at the side</b>	mm	0
<b>Mounting type</b>		screw and snap-on mounting
<b>Width</b>	mm	90
<b>Height</b>	mm	100
<b>Depth</b>	mm	121.6

#### Connections/ Terminals:

<b>Type of electrical connection</b>		screw-type terminals
<b>Type of connectable conductor cross-section</b>		
• solid		1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )

<ul style="list-style-type: none"> <li>finely stranded</li> <li>— with core end processing</li> </ul>	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
Type of connectable conductor cross-section for AWG conductors	
<ul style="list-style-type: none"> <li>solid</li> </ul>	1x (20 ... 12), 2x (20 ... 14)

**Product Function:**

<b>Suitability for operation Device connector 3ZY12</b>	No
<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>	Yes Yes

<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](#)

[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**

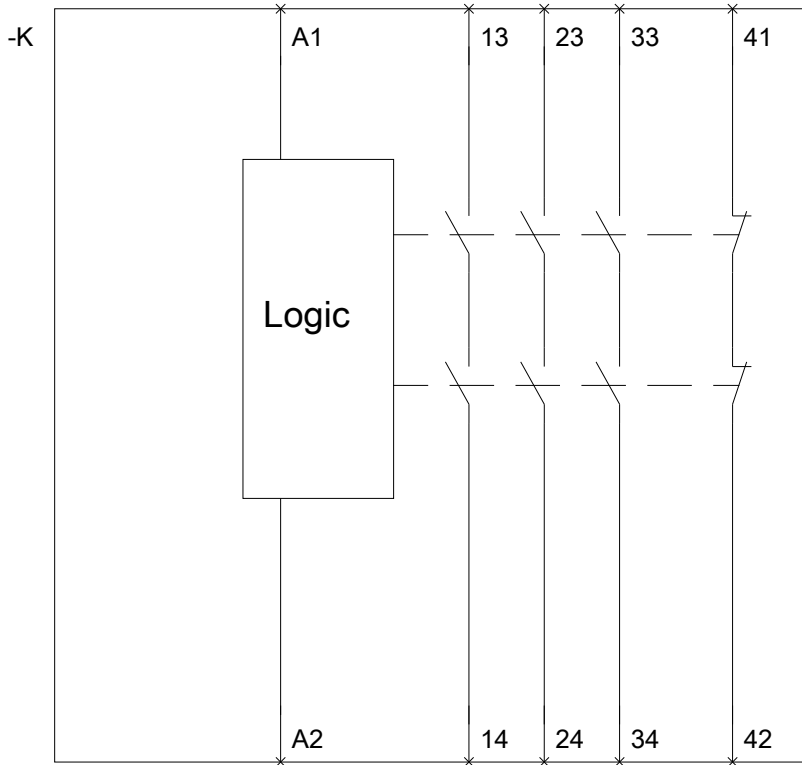
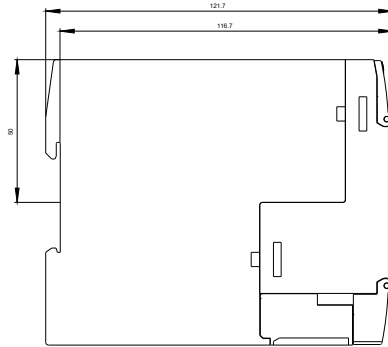
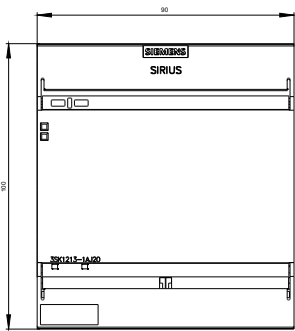
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK12131AJ20>

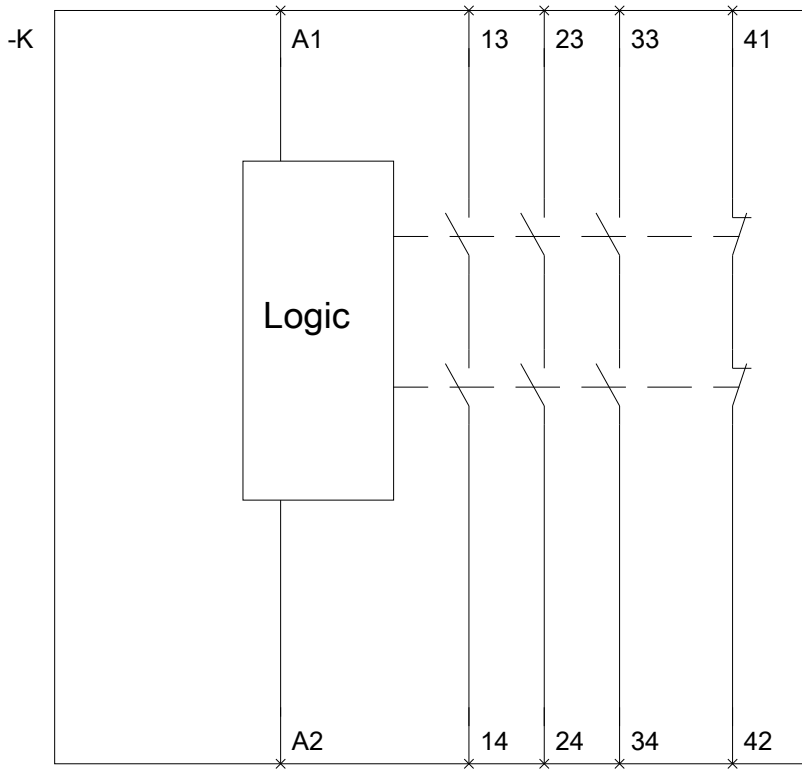
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3SK12131AJ20/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3SK12131AJ20&lang=en>





last modified:

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