



Figure similar

SIRIUS SAFETY RELAY OUTPUT EXTENSION 3RO POWER, WITH RELAY ENABLING CIRCUITS 3 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		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"> • as NC contact <ul style="list-style-type: none"> — for signaling function instantaneous contact — for signaling function delayed switching — safety-related instantaneous contact — safety-related delayed switching • as NO contact <ul style="list-style-type: none"> — for signaling function instantaneous contact — for signaling function delayed switching — safety-related instantaneous contact — safety-related delayed switching 		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"> • at DC-13 <ul style="list-style-type: none"> — at 24 V — at 115 V — at 230 V • at AC-15 <ul style="list-style-type: none"> — at 24 V — at 115 V — at 230 V 	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

Design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required		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	50
• for DC maximum	ms	70
Make time with automatic start after power failure		
• typical	ms	50
• maximum	ms	70
Backslide delay time in the event of power failure		
• typical	ms	20
• maximum	ms	20
Recovery time after power failure typical	s	0

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	5.5

Installation/ mounting/ dimensions:

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

Connections/ Terminals:

Type of electrical connection		screw-type terminals
Type of connectable conductor cross-section		
• solid		1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²)
• finely stranded		
— with core end processing		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
Type of connectable conductor cross-section for AWG conductors		
• solid		1x (20 ... 12), 2x (20 ... 14)

Product Function:

Product function parameterizable		undelayed/delayed (only with system connector)
Suitability for operation Device connector 3ZY12		Yes

Suitability for use		Yes
<ul style="list-style-type: none"> • safety-related circuits 		

Certificates/ approvals:

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

General Product Approval	EMC	Functional Safety/Safety of Machinery	Declaration of Conformity
---------------------------------	------------	--	----------------------------------



CCC



CSA



UL



C-TICK

[Type Examination](#)



EG-Konf.

Test Certificates	other
--------------------------	--------------

[Type Test Certificates/Test Report](#)

[Confirmation](#)

Further information

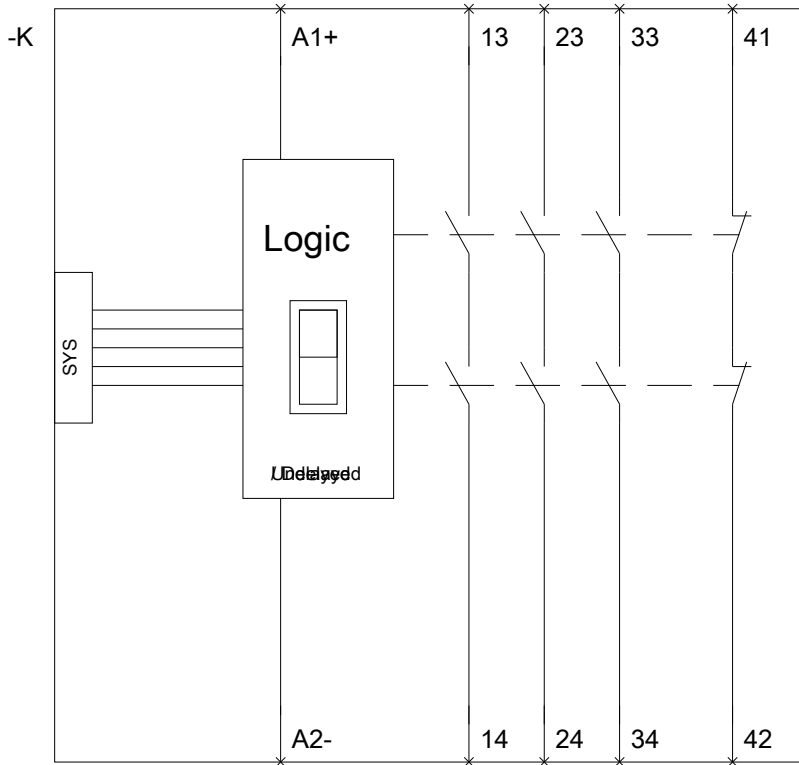
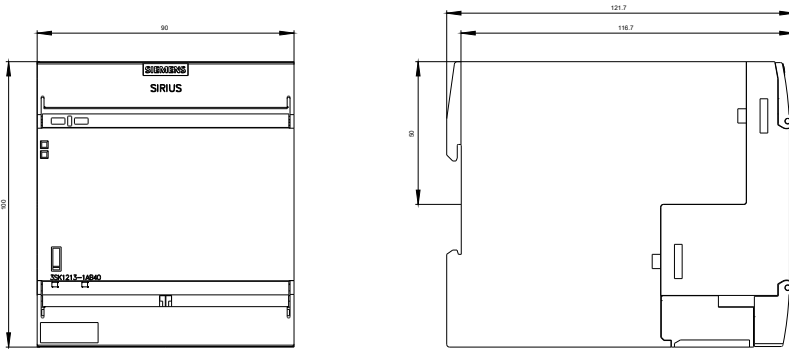
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

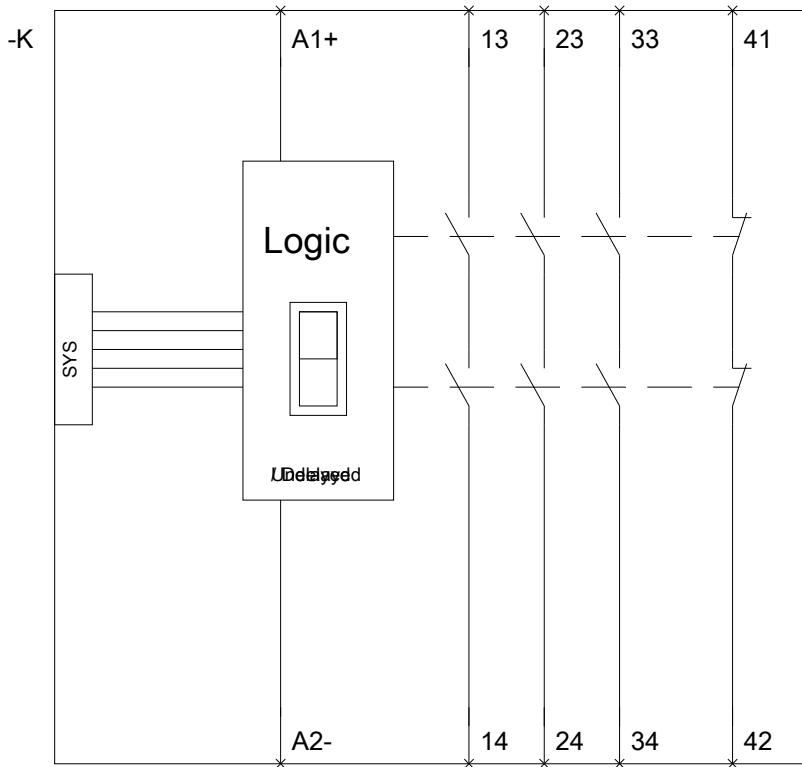
Industry Mall (Online ordering system)
<http://www.siemens.com/industrymall>

Cax online generator
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK12131AB40>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<http://support.automation.siemens.com/WW/view/en/3SK12131AB40/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3SK12131AB40&lang=en>





last modified:

09.03.2015