



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	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	5 g / 10 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

PFHD with high demand rate acc. to EN 62061	0.000000001 1/h
Average probability of failure on demand (PFDavg) with low demand rate acc. to IEC 61508	0.000001 1/y
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	
<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	360 1/h
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 	 6 A 1.1 A 0.55 A 10 A 10 A 10 A
Thermal current of the switching element with contacts maximum	10 A
Operating current at 17 V minimum	5 mA
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	300 V

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	50 ms
• for DC maximum	70 ms
Make time with automatic start after power failure	
• typical	50 ms
• maximum	70 ms
Backslide delay time in the event of power failure	
• typical	20 ms
• maximum	20 ms
Recovery time after power failure typical	0 s

Control circuit/ Control:

Type of voltage of the control supply voltage	DC
Control supply voltage	
• for DC	
— Rated value	24 V
Operating range factor control supply voltage rated value of the magnet coil	
• for DC	0.8 ... 1.2
Active power loss typical	5.5 W

Installation/ mounting/ dimensions:

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

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

Certificates/ approvals:

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

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



CSA



UL



C-TICK

[Type Examination](#)



EG-Konf.

Test Certificates	other
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[Type Test Certificates/Test Report](#)

[Confirmation](#)

Further information

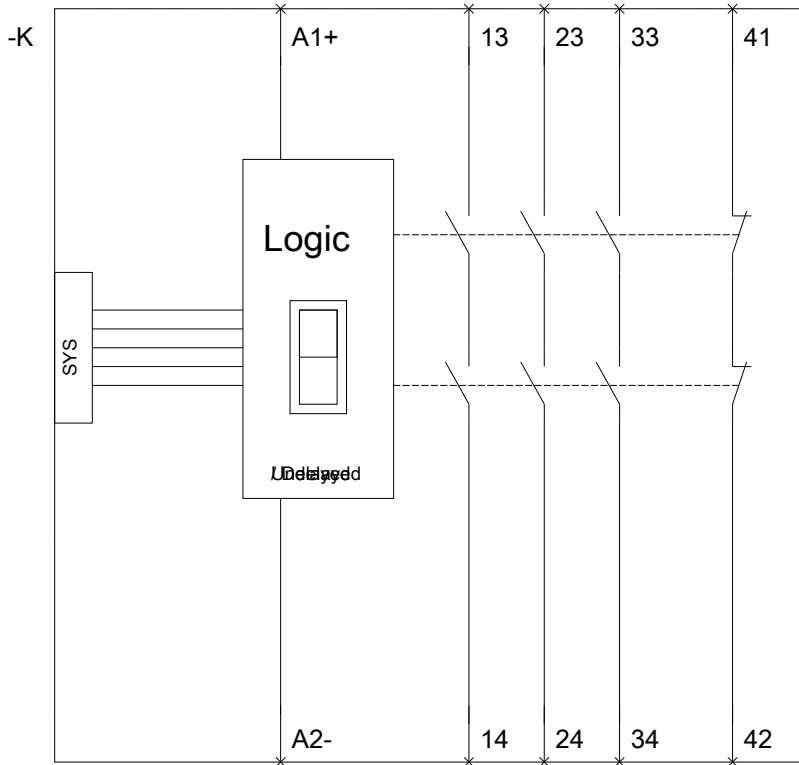
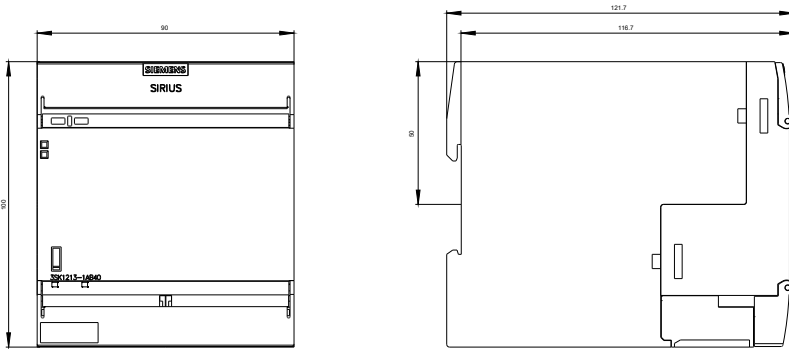
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

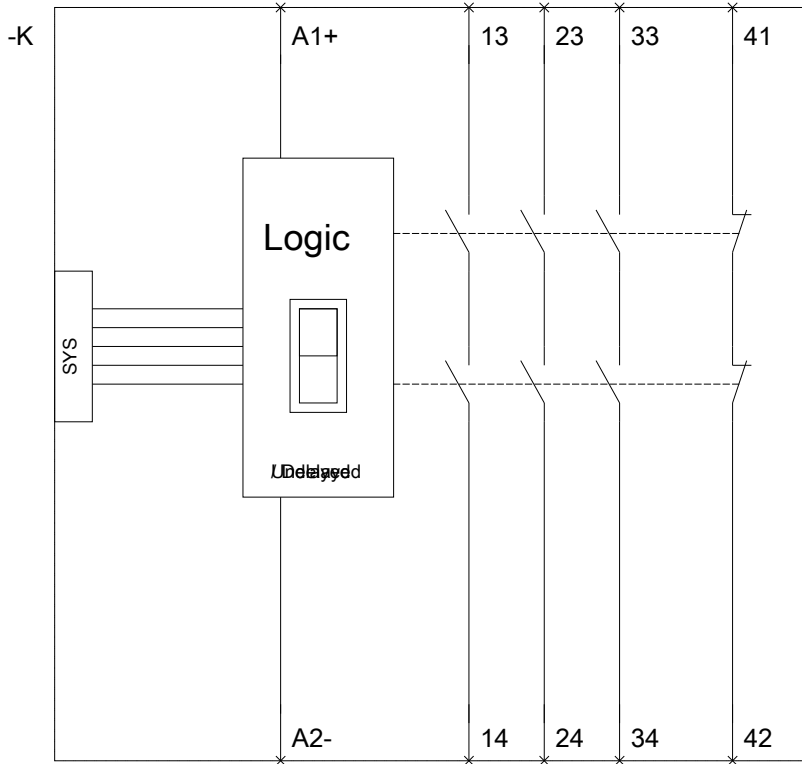
Industry Mall (Online ordering system)
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Cax online generator
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Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3SK12131AB40>

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





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