SIEMENS

Data sheet 3SK1213-2AB40



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 SPRING-LOADED CONNECTION

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	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	3
Degree of pollution	3
Equipment marking acc. to DIN EN 61346-2	F
Safety Integrity Level (SIL) acc. to IEC 61508	3
Performance level (PL) acc. to EN ISO 13849-1	е
Category acc. to EN ISO 13849-1	4
PFHD with high demand rate acc. to EN 62061	0.00000001 1/h
PFDavg with low demand rate acc. to IEC 61508	0.000001
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 as NC contact for signaling function delayed switching 	0
 as contact-based switch block as NC contact for feedback circuit instantaneous switching 	1
 as contact-affected switching element as NC contact safety-related instantaneous contact 	0
 as contact-affected switching element as NC contact safety-related delayed switching 	0
 Number of outputs as contact-affected switching element as NO contact 	
 for signaling function instantaneous contact 	0
 for signaling function delayed switching 	0
 — safety-related instantaneous contact 	3
 safety-related delayed switching 	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			
● at DC-13			
— at 24 V	6 A		
— at 115 V	1.1 A		
— at 230 V	0.55 A		
• at AC-15			

— at 24 V	10 A
— at 115 V	10 A
— at 230 V	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
• at 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
Type of voltage of the control supply voltage Control supply voltage	DC
Type of voltage of the control supply voltage	
Type of voltage of the control supply voltage Control supply voltage at DC — rated value	DC 24 V
Type of voltage of the control supply voltage Control supply voltage at DC	
Type of voltage of the control supply voltage Control supply voltage at DC — rated value Operating range factor control supply voltage rated value of magnet coil at DC	24 V 0.8 1.2
Type of voltage of the control supply voltage Control supply voltage at DC — rated value Operating range factor control supply voltage rated value of magnet coil	24 V
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Type of voltage of the control supply voltage Control supply voltage at DC — rated value Operating range factor control supply voltage rated value of magnet coil at DC Power loss [W] typical Installation/ mounting/ dimensions Mounting position	24 V 0.8 1.2
Type of voltage of the control supply voltage Control supply voltage at DC rated value Operating range factor control supply voltage rated value of magnet coil at DC Power loss [W] typical Installation/ mounting/ dimensions Mounting position Required spacing for grounded parts at the side	24 V 0.8 1.2 5.5 W
Type of voltage of the control supply voltage Control supply voltage at DC — rated value Operating range factor control supply voltage rated value of magnet coil at DC Power loss [W] typical Installation/ mounting/ dimensions Mounting position	24 V 0.8 1.2 5.5 W on horizontal standard mounting rail
Type of voltage of the control supply voltage Control supply voltage at DC rated value Operating range factor control supply voltage rated value of magnet coil at DC Power loss [W] typical Installation/ mounting/ dimensions Mounting position Required spacing for grounded parts at the side Required spacing with side-by-side mounting at the	24 V 0.8 1.2 5.5 W on horizontal standard mounting rail 5 mm
Type of voltage of the control supply voltage Control supply voltage at DC rated value Operating range factor control supply voltage rated value of magnet coil at DC Power loss [W] typical Installation/ mounting/ dimensions Mounting position Required spacing for grounded parts at the side Required spacing with side-by-side mounting at the side	24 V 0.8 1.2 5.5 W on horizontal standard mounting rail 5 mm 0 mm
Type of voltage of the control supply voltage Control supply voltage at DC — rated value Operating range factor control supply voltage rated value of magnet coil at DC Power loss [W] typical Installation/ mounting/ dimensions Mounting position Required spacing for grounded parts at the side Required spacing with side-by-side mounting at the side Mounting type Width Height	24 V 0.8 1.2 5.5 W on horizontal standard mounting rail 5 mm 0 mm screw and snap-on mounting 90 mm 100 mm
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Type of connectable conductor cross-sections	
• solid	1x (0.5 1.5 mm²), 2x (0.5 1.5 mm²)
• finely stranded	
 — with core end processing 	1x (0.5 1.5 mm²), 2x (0.5 1.5 mm²)
 — without core end processing 	1x (0.5 1.5 mm²), 2x (0.5 1.5 mm²)
Type of connectable conductor cross-sections at AWG conductors	
• solid	1x (20 16), 2x (20 16)
• stranded	1x (20 16), 2x (20 16)

Product Function			
Product function parameterizable	undelayed/delayed (only with system connector)		
Suitability for operation Device connector 3ZY12	Yes		
Suitability for use			
safety-related circuits	Yes		

Certificates/approvals			
Certificate of suitability			
• TÜV (German technical inspectorate) certificate	Yes		
UL approval	Yes		
General Product Approval		EMC	Functional

General Flo	duct Approvai		EIVIC	Safety/Safety of Machinery
			^	Type Examination











Declaration of	Test	Shipping Approval	other
Conformity	Certificates		



Type Test Certificates/Test Report







Confirmation

Railway

Confirmation

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Industry Mall (Online ordering system)

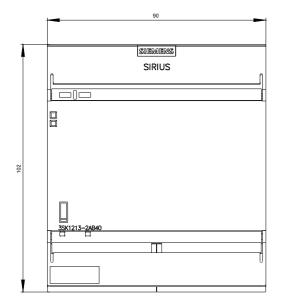
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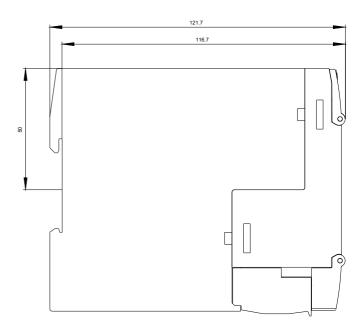
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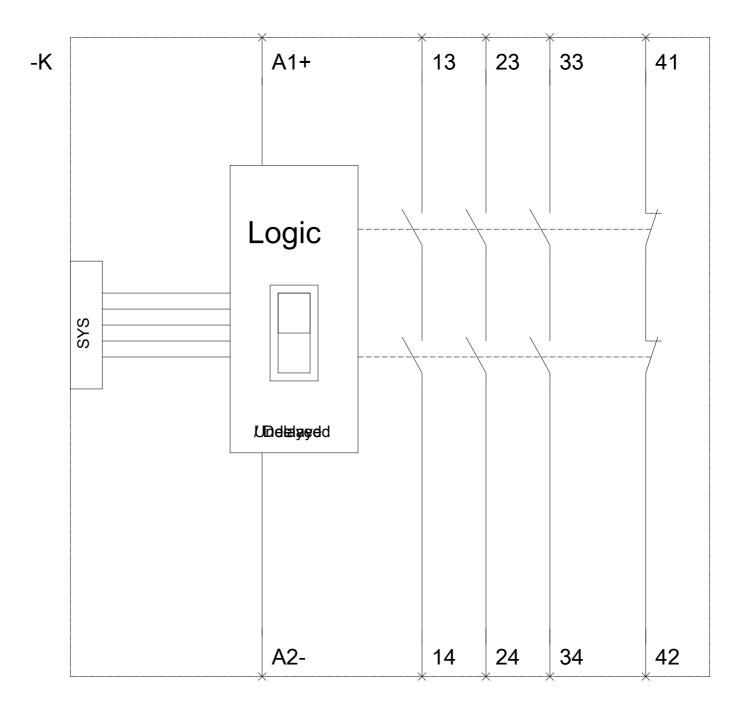
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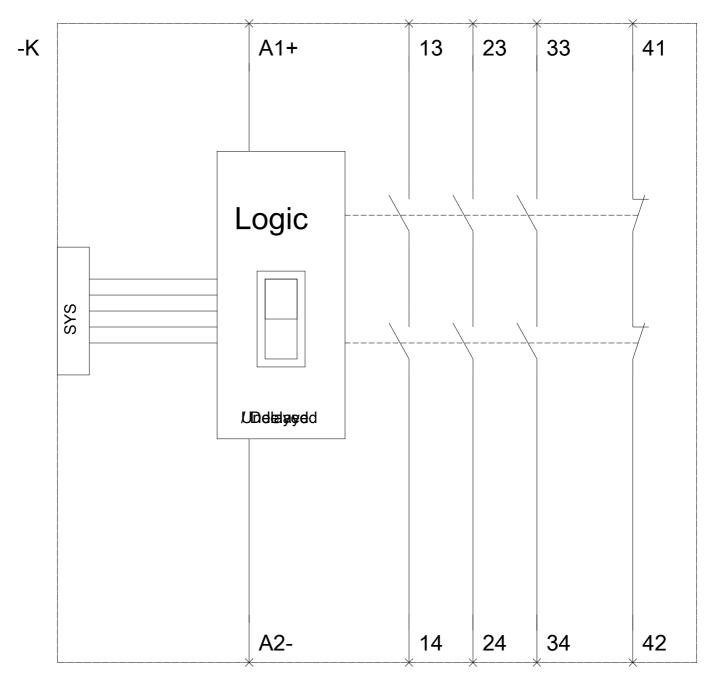
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK1213-2AB40&lang=en









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