SIEMENS

Data sheet 3SK1121-2CB42

SIEMEKS

SIRIUS SAFETY RELAY BASIC UNIT ADVANCED SERIES WITH TIME DELAY 0.5-30S RELAY ENABLING CIRCUITS 2 INSTANTANEOUS NO CONTACTS 2 DELAYED NO CONTACTS US = 24 V DC SPRING-LOADED TERMINAL

Figure similar

General technical data:	
product brand name	SIRIUS
Product designation	Advanced basic units
Design of the product	For autonomous safety applications
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, Class A

Installation environment regarding EMC	This product is suitable for Class A environments only. It can			
	cause undesired radio-frequency interference in residential			
	environments. If this is the case, the user must take appropriate			
	measures.			
Overvoltage category	3			
Degree of pollution	3			
Number of sensor inputs 1-channel or 2-channel	1			
Design of the cascading	yes			
Type of the safety-related wiring of the inputs	single-channel and two-channel			
Product feature cross-circuit-proof	Yes			
Safety Integrity Level (SIL)				
• acc. to IEC 61508	SIL3			
• for delayed release circuit acc. to IEC 61508	SIL3			
Performance level (PL)				
• acc. to EN ISO 13849-1	е			
 for delayed release circuit acc. to EN ISO 13849-1 	е			
Category acc. to EN ISO 13849-1	4			
Safe failure fraction (SFF)	99 %			
PFHD with high demand rate acc. to EN 62061	0.000000037 1/h			
PFDavg with low demand rate acc. to IEC 61508	0.000007			
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	Туре В			
Number of outputs as contact-affected switching				
element				
as NC contact				
 for signaling function instantaneous contact 	0			
 for signaling function delayed switching 	0			
 — safety-related instantaneous contact 	0			
 — safety-related delayed switching 	0			
• as NO contact				
 for signaling function instantaneous contact 	0			
 for signaling function delayed switching 	0			
 — safety-related instantaneous contact 	2			
 — safety-related delayed switching 	2			
Number of outputs as contact-less semiconductor switching element				
safety-related				
delayed switching	0			
instantaneous contact	0			
/				

• for signaling function instantaneous contact

Stop category acc. to DIN EN 60204-1

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Design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required Design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required Mike time with automatic start after power failure • typical Make time with automatic start • maximum Make time with automatic start • maximum Descalad clealy time in the event of power failure • typical • cascading input/functional switching Yes Yes Yes Yes Yes Yes Yes Ye			
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Backslide delay time after opening of the safety circuits typical Backslide delay time in the event of power failure			
circuits typical Backslide delay time in the event of power failure			
Backslide delay time in the event of power failure			
• typical 30 ms			
.) 6.00.			
• maximum 40 ms			
Adjustable OFF-delay time after opening of the safety circuits 0.5 30			
Recovery time after opening of the safety circuits 30 ms typical			

Recovery time after power failure typical	6.5 s				
Pulse duration					
 of the sensor input minimum 	75 ms				
• of the ON pushbutton input minimum	0.15 s				
Control circuit/ Control:					
Type of voltage of the control supply voltage	DC				
Control supply voltage					
• at DC					
— rated value	24 V				
Operating range factor control supply voltage rated value of magnet coil					
• at DC	0.8 1.2				
Power loss [W] typical	2.5 W				
Installation/ mounting/ dimensions:					
Mounting position	any				
Required spacing for grounded parts at the side	5 mm				
Required spacing with side-by-side mounting at the	0 mm				
side					
Mounting type	screw and snap-on mounting				
Width	22.5 mm				
Height	100 mm				
Depth	121.6 mm				
Connections/ Terminals:					
Type of electrical connection	Push-in terminal				
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 1.0 mm²), 2x (0.5 1.0 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	Sensor floating / sensor non-floating, monitored start / autostart, 1-channel / 2-channel sensor connection, cross-circuit detection, startup testing, antivalent sensors, 2-hand switches, time delay
Suitability for operation Device connector 3ZY12	Yes
Suitability for interaction press control	Yes
Suitability for use	
safety switch	Yes
 Monitoring of floating sensors 	Yes

- · Monitoring of non-floating sensors
- magnetically operated switch monitoring
- safety-related circuits

Yes

Yes

Yes

General Product Approval

EMC

Functional Safety/Safety of Machinery











Baumusterbescheini gung

Declaration of Conformity	Test Certificates	Shipping Approval		other	Railway
((Typprüfbescheinigu ng/Werkszeugnis	Lloyd's		Bestätigungen	Bestätigungen





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Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3SK1121-2CB42

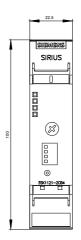
Cax online generator

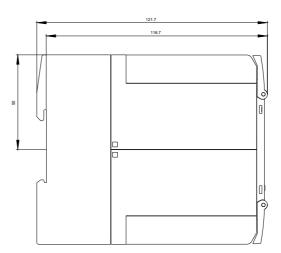
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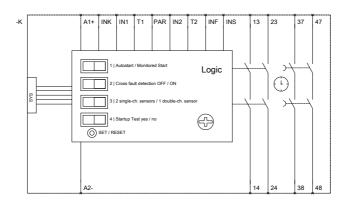
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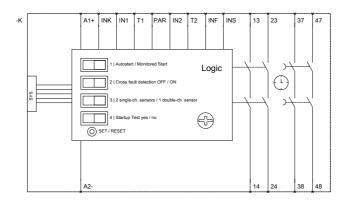
https://support.industry.siemens.com/cs/ww/en/ps/3SK1121-2CB42

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK1121-2CB42&lang=en









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