SIEMENS

Data sheet 3SK1121-2CB41



SIRIUS safety relay Basic unit Advanced series with time delay 0.05-3 s Relay enabling circuits 2 NO instantaneous 2 NO delayed Us = 24 V DC Spring-type terminal (push-in)

product brand name	SIRIUS
product category	Safety relays
product designation	safety relays
design of the product	Relay enabling circuits
General technical data	
protection class IP of the enclosure	IP20
touch 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 according to SN 31205	90 106 kPa
relative humidity during operation	10 95 %
installation altitude at height above sea level maximum	4 000 m; Derating, see Product Notification 109792701
vibration resistance according 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. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.
overvoltage category	3
degree of pollution	3
reference code according to IEC 81346-2	F
power loss [W] maximum	2.5 W
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)	
 according to IEC 62061 	3
 according to IEC 61508 	3
 for delayed release circuit according to IEC 61508 	SIL3
performance level (PL)	
• according to ISO 13849-1	е
 for delayed release circuit according to ISO 13849-1 	e
category according to EN ISO 13849-1	4
Safe failure fraction (SFF)	99 %
PFHD with high demand rate according to EN 62061	3.7E-9 1/h
PFDavg with low demand rate according to IEC 61508	7E-6
T1 value for proof test interval or service life according to	20 a

IEC 61508	
hardware fault tolerance according to IEC 61508	1
safety device type according to IEC 61508-2	Type B
Inputs/ Outputs	туре в
number of outputs as contact-affected switching element	
as NO contact	
— safety-related instantaneous contact	2
— safety-related delayed switching	2
stop category according to EN 60204-1	0/1
design of input	V
cascading input/functional switching	Yes
feedback input	Yes
• start input	Yes
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	2.4
— at 24 V	3 A
— at 115 V	0.2 A
— at 230 V	0.1 A
— at AC-15	2.4
— at 115 V	3 A
— at 230 V	3 A
thermal current of the switching element with contacts maximum	5 A
total current maximum	12 A
operational current at 17 V minimum	5 mA
mechanical service life (operating cycles) typical	10 000 000
design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required	gL/gG: 6A or circuit breaker type A: 3A or circuit breaker type B: 2A or circuit breaker type C: 1A
wire length • with Cu 1.5 mm² and 150 nF/km per sensor circuit	4 000 m
maximum make time with automatic start	
at DC maximum	110 ms
make time with automatic start after power failure	110 1113
• typical	6 500 ms
• maximum	6 500 ms
make time with monitored start	0 000 1110
maximum	110 ms
backslide delay time after opening of the safety circuits	40 ms
typical	
backslide delay time in the event of power failure	
• typical	30 ms
maximum	40 ms
adjustable OFF-delay time after opening of the safety circuits	0.05 3
recovery time after opening of the safety circuits typical	30 ms
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
Installation/ mounting/ dimensions	

mounting position	any
required spacing for grounded parts at the side	5 mm
fastening method	screw and snap-on mounting
width	22.5 mm
height	100 mm
depth	121.6 mm
Connections/ Terminals	
type of electrical connection	spring-loaded terminal (push-in)
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 for AWG cables	
• 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-up / automatic start, 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 	Yes
 magnetically operated switch monitoring 	Yes
 safety-related circuits 	Yes
Certificates/ approvals	

General Product Approval









Confirmation



General Product Approval

EMV

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report







Marine / Shipping

other

Railway



Confirmation

Confirmation

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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

https://www.siemens.com/ic10

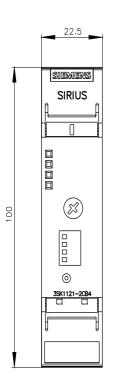
Industry Mall (Online ordering system)

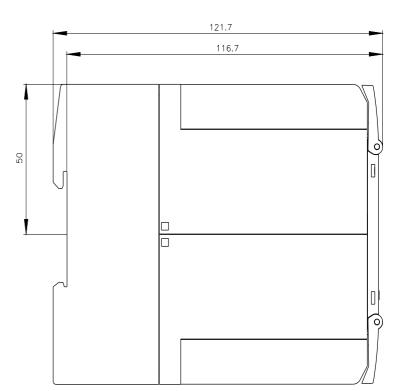
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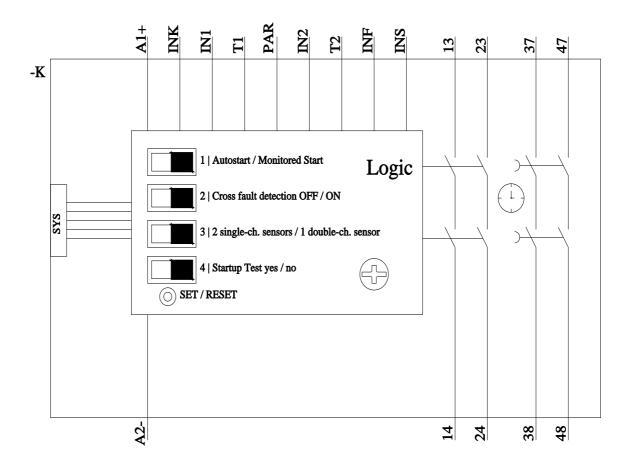
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK1121-2CB41

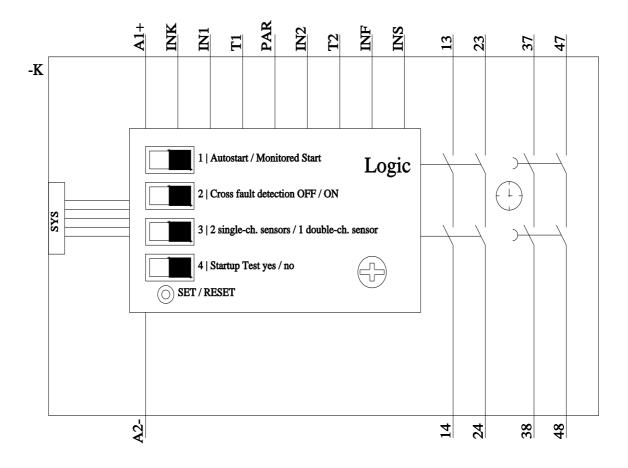
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3SK1121-2CB41

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK1121-2CB41&lang=en









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