SIEMENS

Data sheet

3SK1111-2AB30



SIRIUS safety relay Basic unit Standard series Relay enabling circuits 3 NO contacts plus Relay signaling circuit 1 NC contact Us = 24 V AC/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, 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
reference code according to IEC 81346-2	F
power loss [W] maximum	2 W
number of sensor inputs 1-channel or 2-channel	1
design of the cascading	none
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
performance level (PL)	
 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	1.7E-9 1/h
PFDavg with low demand rate according to IEC 61508	1E-6
T1 value for proof test interval or service life according to IEC 61508	20 a
hardware fault tolerance according to IEC 61508	1
safety device type according to IEC 61508-2	Туре А

Inputs/ Outputs	
number of outputs as contact-affected switching element	
as NC contact	
— for signaling function instantaneous contact	1
as NO contact	
 — safety-related instantaneous contact 	3
— safety-related delayed switching	0
stop category according to EN 60204-1	0
design of input	
 cascading input/functional switching 	No
 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	
— at 24 V	5 A
— at 115 V	0.2 A
— at 230 V	0.1 A
— at AC-15	
— at 115 V	5 A
— at 230 V	5 A
 of the NC contacts of the relay outputs 	
— at DC-13	
— at 24 V	1 A
— at 115 V	0.2 A
— at 230 V	0.1 A
— at AC-15	
— at 115 V	1.5 A
— at 230 V	1.5 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
design of the fuse link for short circuit protection of the NC contacts of the relay outputs required	Diazed or Neozed fuses, operating class gL/gG: 6 A or MCB type A: 2 A or MCB type B: 2 A or MCB type C: 1 A
wire length	
 for total of all sensor circuits with Cu 1.5 mm² and 150 nF/km maximum 	2 000 m
make time with automatic start	
• typical	200 ms
• at DC maximum	320 ms
• at AC maximum	320 ms
make time with automatic start after power failure	
• typical	200 ms
• maximum	320 ms
make time with monitored start	
• maximum	20 ms
• typical	15 ms
backslide delay time after opening of the safety circuits typical	10 ms
backslide delay time in the event of power failure	
• typical	65 ms
• maximum	75 ms
recovery time after opening of the safety circuits typical	10 ms
recovery time after power failure typical	0.09 s
pulse duration	
 of the sensor input minimum 	150 ms

• of the ON pushbutton input minimum	0.015 s				
of the ON pushbutton input minimum	0.010.5				
Control circuit/ Control					
type of voltage of the control supply voltage	AC/DC				
control supply voltage frequency					
• 1 rated value	50 Hz				
2 rated value	60 Hz				
control supply voltage					
• at DC					
— rated value	24 V				
— rated value	24 24 V				
• at AC					
— at 50 Hz					
— rated value	24 V				
— rated value	24 24 V				
— at 60 Hz					
— rated value	24 V				
— rated value	24 24 V				
operating range factor control supply voltage rated value of magnet coil • at AC					
	0.85 1.1				
— at 50 Hz	0.85 1.1 0.85 1.1				
— at 60 Hz	0.85 1.1 0.85 1.2				
• at DC	۰.00 ۱.۷ 				
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				
suitability for operation device connector 3ZY12	No				
suitability for interaction press control	No				
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	EMC				
Confirmation CCC					
Functional Declaration of Conformity	Test Certificates Marine / Shipping				

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chinery				
Type Examination Cer- tificate	UK CA	C C EG-Konf.	Type Test Certific- ates/Test Report	Llovd's Register us
Marine / Shipping		other	Railway	
		Confirmation	<u>Confirmation</u>	

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)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3SK1111-2AB30

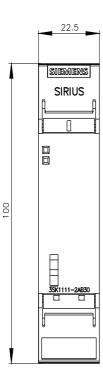
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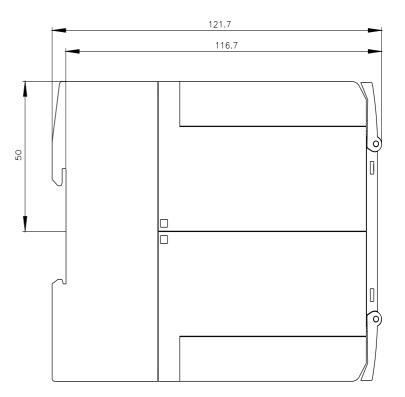
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK1111-2AB30

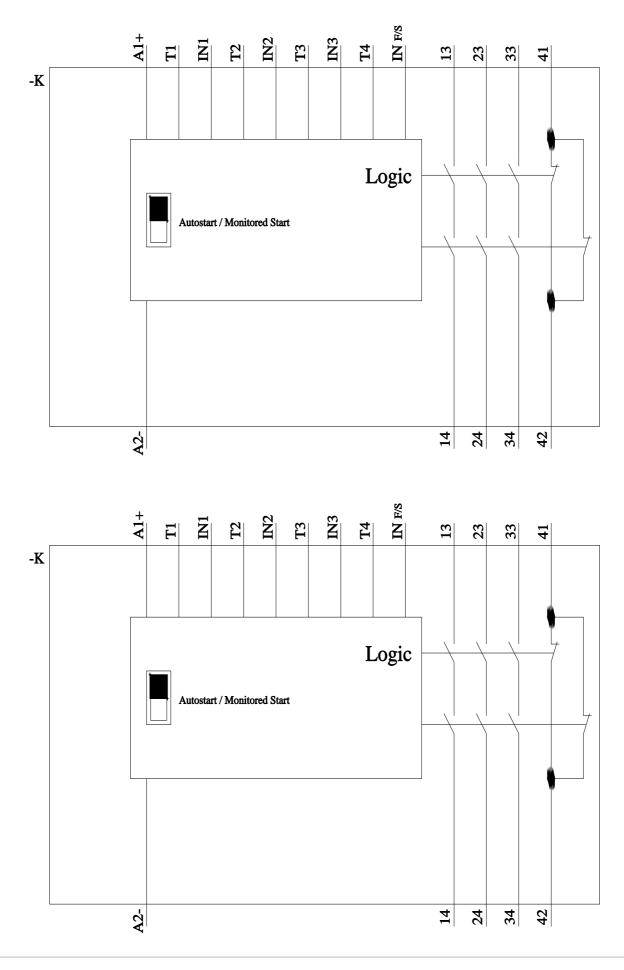
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3SK1111-2A

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK1111-2AB30&lang=en







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