SIEMENS

Data sheet

3SK1111-1AB30



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 screw terminal

General technical data	
product brand name	SIRIUS
product category	Safety relays
product designation	safety relays
design of the product	Relay enabling circuits
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 acc. to SN 31205	900 1 060 hPa
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, 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 acc. 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)	
• acc. to IEC 61508	3
performance level (PL)	
• 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	0.000000017 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 у
hardware fault tolerance acc. to IEC 61508	1

number of outputs as contact-affected switching element is NC contact		True A
element	safety device type acc. to IEC 61508-2	Туре А
 — for signaling function instantaneous contact astely-related instantaneous contact cascading input/motional switching cascading input/motional switching east-back input reaction of the relation of		
	as NC contact	
	 for signaling function instantaneous contact 	1
	 — safety-related instantaneous contact 	3
stop category acc. to DN EN 60204-1 0 Contral tochnical data General tochnical data design of input No - cacacading input/functional switching No - for the second connection plug-in socket No operating frequency maximum 360 1/h switching capacity current 360 1/h - at DC-13 - at 230 V - at 230 V 0.1 A - at 230 V 5 A - at 230 V 0.1 A - at 230 V 1.5 A	-	0
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of the NO contacts of the relay outputs		500 1/11
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backslide delay time after opening of the safety circuits typical 10 ms backslide delay time in the event of power failure typical maximum 75 ms 	● typical	15 ms
• typical 65 ms • maximum 75 ms	backslide delay time after opening of the safety	10 ms
• typical 65 ms • maximum 75 ms		
• maximum 75 ms		65 ms
recovery time after exempts of the safety circuits		75 ms
recovery time after opening of the safety circuits 10 ms	recovery time after opening of the safety circuits	10 ms
typical		

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
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	00112
• at DC	
	0414
— rated value	24 V
• at AC	
— at 50 Hz	
— rated value	24 V
— at 60 Hz	
— rated value	24 V
operating range factor control supply voltage rated	
value of magnet coil	
• at AC	
— at 50 Hz	0.85 1.1
— at 60 Hz	0.85 1.1
• at DC	0.85 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
	121.0 mm
Connections/ Terminals	
type of electrical connection	screw-type terminals
type of connectable conductor cross-sections	
• solid	1x (0.5 2.5 mm²), 2x (1.0 1.5 mm²)
 finely stranded 	
— with core end processing	1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
type of connectable conductor cross-sections at AWG	
cables	
• solid	1x (20 14), 2x (18 16)
stranded	1x (20 16), 2x (20 16)
Product Function	
product function parameterizable	Sensor floating / sensor non-floating, monitored start / autostart
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
monitoring of non-induling sensors magnetically operated switch monitoring	Yes
safety-related circuits	Yes
Certificates/ approvals	
General Product Approval	EMC Functional EMC Safety/Safety of Machinery
	ERIC RCM Type Examination Certificate



Further information

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=3SK1111-1AB30

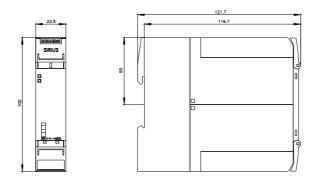
Cax online generator

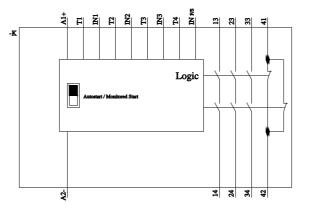
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK1111-1AB30

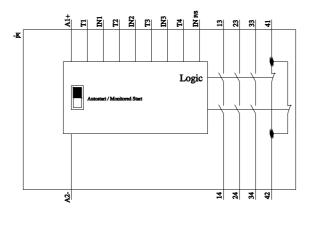
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3SK1111-1AB30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK1111-1AB30&lang=en







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