SIEMENS

Data sheet

Figure similar

3TK2826-1BB42



!!! Phased-out product !!! The successor product series is 3SK2 (see FAQ 109741483) SIRIUS safety relay with relay enabling circuits (EC) 24 V DC, 45 mm screw terminal EC instantaneous: 2 NO EC delayed: 2 SC: 4 Switch with 8 functions Basic device Maximum achievable PL according to EN 13849-1: Maximum achievable SIL according to IEC 61508: 3

product brand name SIRIUS graduct designation safety relays feelign of the product for EMERGENCY-STOP and safety doors General technical data in EMERGENCY-STOP and safety doors graduation class IP of the terminal IP20 protection class IP of the terminal IP20 touch protection against electrical shock finger-safe insulation votage rated value 300 V ambient temperature - 40 +80 °C - during storage -40 +80 °C - during operation -95 % installation attitude at height above sea level maximum wibratin resistance according to EK 60068-2-6 5 500 Hz: 0,075 mm shock resistance 8g / 10 ms surge voltage resistance rated value 4000 V EMC emitted interforence EN 60947-5-1 installation environment regarding EMC This product is suitable for Class A environments only. In household environments, this device can cause unwanted ratio interference. The user is required to implement appropriate measures in this case. reference code according to EN 40719 extended according to IEC 204-2 according to IEC 61508 3 off desaged release circuit according to IEC 61508				
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PFHD with high demand rate according to EN 62061 0.000000078 1/h	hardware fault tolerance according to IEC 61508	1		
	safety device type according to IEC 61508-2	Туре В		
Average probability of failure on demand (PFDavg) 0.000015 1/y	PFHD with high demand rate according to EN 62061	0.000000078 1/h		
	Average probability of failure on demand (PFDavg)	0.000015 1/y		

with low demand rate acc. to IEC 61508	
T1 value for proof test interval or service life	20 y
according to IEC 61508	20 y
number of outputs as contact-affected switching	
element	
as NC contact	
 for signaling function instantaneous contact 	1
 for signaling function delayed switching 	1
as NO contact	
 for signaling function delayed switching 	1
— 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 	
— delayed switching	0
— instantaneous contact	2
stop category according to EN 60204-1	0 + 1
Inputs	
design of input	
 cascading input/functional switching 	Yes
feedback input	Yes
start input	Yes
Outputs	
type of electrical connection plug-in socket	Yes
operating frequency maximum	2 000 1/h
switching capacity current	
 of semiconductor outputs 	
 for signaling function at DC-13 at 24 V 	0.5 A
 of the NO contacts of the relay outputs at DC-13 	
— at 24 V	4 A
— at 115 V	0.2 A
— at 230 V	0.1 A
• of the NO contacts of the relay outputs at AC-15	
— at 24 V	4 A 4 A
— at 115 V — at 230 V	4 A 4 A
 of the NC contacts of the relay outputs at DC-13 	4 A
- at 24 V	1A
— at 24 V — at 115 V	0.2 A
— at 230 V	0.1 A
 of the NC contacts of the relay outputs at AC-15 	
— at 24 V	4 A
— at 115 V	3 A
— at 230 V	3 A
thermal current of the switching element with	5 A
contacts maximum	
electrical endurance (operating cycles) typical	100 000
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: 4 A, or quick: 6 A
DC resistance of the cable maximum	1 000 Ω
wire length between sensor and electronics	2 000 m
evaluation device with Cu 1.5 mm ² and 150 nF/km	
maximum	
Times	
make time with automatic start	50
• typical	50 ms
● at DC maximum ● at AC maximum	100 ms 100 ms
• at AC maximum make time with automatic start after power failure	100 1115
make time with automatic start after power failure	

e typical	8 000 ms				
● typical ● maximum	8 200 ms				
make time with monitored start	6 200 ms				
maximum	100 ms				
typical	50 ms				
backslide delay time in the event of power failure	50 113				
• typical	75 ms				
• maximum	125 ms				
recovery time after power failure typical	125 ms 8.2 s				
pulse duration	0.2.0				
of the sensor input minimum	30 ms				
 of the ON pushbutton input minimum 	0.2 s				
 of the cascading input minimum 	0.2 s				
Control circuit/ Control					
type of voltage of the control supply voltage	DC				
control supply voltage 1	50				
at DC rated value	24 V				
operating range factor control supply voltage rated	2				
value of magnet coil					
• at DC	0.85 1.2				
Installation/ mounting/ dimensions					
mounting position	any				
fastening method	screw and snap-on mounting				
width	45 mm				
height	138.5 mm				
depth	120 mm				
Connections/ Terminals					
type of electrical connection	screw-type terminals				
type of connectable conductor cross-sections					
solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)				
finely stranded					
	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)				
 — with core end processing type of connectable conductor cross-sections at AWG 	1x (0.5 2.5 min), 2x (0.5 1.5 min)				
type of connectable conductor cross-sections at AWG cables	1x (0.5 2.5 min), 2x (0.5 1.5 min)				
type of connectable conductor cross-sections at AWG	2x (20 14)				
type of connectable conductor cross-sections at AWG cables					
type of connectable conductor cross-sections at AWG cables • solid	2x (20 14)				
type of connectable conductor cross-sections at AWG cables • solid • stranded	2x (20 14)				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function	2x (20 14)				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function	2x (20 14) 2x (20 14)				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring	2x (20 14) 2x (20 14) Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring	2x (20 14) 2x (20 14) Yes No				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function Product function • light barrier monitoring • standstill monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO	2x (20 14) 2x (20 14) Yes No Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring monitored start-up 	2x (20 14) 2x (20 14) Yes No Yes Yes No Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring monitored start-up light array monitoring 	2x (20 14) 2x (20 14) Yes No Yes Yes No Yes Yes Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring monitored start-up light array monitoring magnetically operated switch monitoring NC-NC 	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring monitored start-up light array monitoring magnetically operated switch monitoring NC-NC EMERGENCY OFF function 	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring light array monitoring magnetically operated switch monitoring NC-NC EMERGENCY OFF function pressure-sensitive mat monitoring 	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use	2x (20 14) 2x (20 14) Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors • monitoring of non-floating sensors	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring light array monitoring magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring monitored start-up light array monitoring magnetically operated switch monitoring NC-NC EMERGENCY OFF function pressure-sensitive mat monitoring suitability for interaction press control suitability for use monitoring of floating sensors monitoring of non-floating sensors safety switch 	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring light array monitoring magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring laser scanner monitoring monitored start-up light array monitoring magnetically operated switch monitoring NC-NC EMERGENCY OFF function pressure-sensitive mat monitoring suitability for interaction press control suitability for use monitoring of floating sensors monitoring of non-floating sensors safety switch position switch monitoring 	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring light array monitoring magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring light array monitoring magnetically operated switch monitoring NC-NC EMERGENCY OFF function pressure-sensitive mat monitoring suitability for interaction press control suitability for use monitoring of floating sensors safety switch position switch monitoring EMERGENCY-OFF circuit monitoring 	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function Product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors • monitoring of non-floating sensors • safety switch • position switch monitoring • EMERGENCY-OFF circuit monitoring • valve monitoring • valve monitoring	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function Product function • light barrier monitoring • standstill monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors • safety switch • position switch monitoring • EMERGENCY-OFF circuit monitoring • valve monitoring • tactile sensor monitoring	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring monitored start-up light array monitoring magnetically operated switch monitoring NC-NC EMERGENCY OFF function pressure-sensitive mat monitoring suitability for interaction press control suitability for use monitoring of floating sensors safety switch position switch monitoring EMERGENCY-OFF circuit monitoring valve monitoring tactile sensor monitoring magnetically operated switch monitoring 	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
type of connectable conductor cross-sections at AWG cables • solid • stranded Product Function Product function • light barrier monitoring • standstill monitoring • protective door monitoring • protective door monitoring • protective door monitoring • protective door monitoring • automatic start • magnetically operated switch monitoring NC-NO • rotation speed monitoring • laser scanner monitoring • monitored start-up • light array monitoring • magnetically operated switch monitoring NC-NC • EMERGENCY OFF function • pressure-sensitive mat monitoring suitability for interaction press control suitability for use • monitoring of floating sensors • monitoring of non-floating sensors • safety switch • position switch monitoring • EMERGENCY-OFF circuit monitoring • valve monitoring • tactile sensor monitoring • magnetically operated switch monitoring • safety-related circuits	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				
 type of connectable conductor cross-sections at AWG cables solid stranded Product Function light barrier monitoring standstill monitoring standstill monitoring protective door monitoring automatic start magnetically operated switch monitoring NC-NO rotation speed monitoring laser scanner monitoring monitored start-up light array monitoring magnetically operated switch monitoring NC-NC EMERGENCY OFF function pressure-sensitive mat monitoring suitability for interaction press control suitability for use monitoring of floating sensors safety switch position switch monitoring EMERGENCY-OFF circuit monitoring valve monitoring tactile sensor monitoring magnetically operated switch monitoring 	2x (20 14) 2x (20 14) Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes				

 TÜV (German te UL approval BG BIA approval 	chnical inspectorate)	certificate	Yes Yes Yes			
General Product App	roval			EMC	Functional Safety/Safety of Machinery	Test Certificates
	U	EAC		RCM	<u>Type Examination</u> <u>Certificate</u>	<u>Special Test Certific-</u> <u>ate</u>

other

Confirmation

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=3TK2826-1BB42

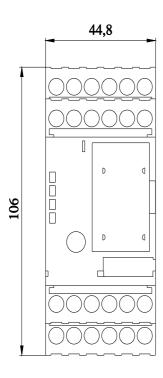
Cax online generator

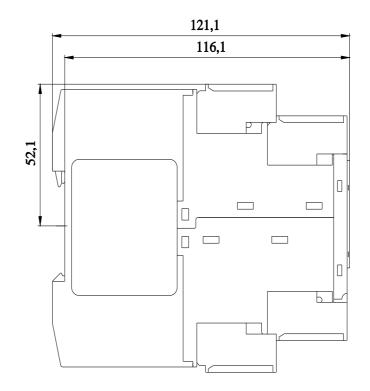
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TK2826-1BB42

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

https://support.industry.siemens.com/cs/ww/en/ps/3TK2826-1BB42

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TK2826-1BB42&lang=en





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