SIEMENS

Data sheet 3TK2827-2BB41



SIRIUS safety relay with relay enabling circuits (EC) 24 V DC, 45 mm overall width Spring-type terminal EC instantaneous: 2 NO EC delayed: 2NO, 0.05...3 s SC: 1NC monitored start Basic device Maximum achieved SIL: 3/2, PL: e/d

Figure similar

product brand name	SIRIUS		
product designation	safety relays		
design of the product	for EMERGENCY-STOP and safety doors		
General technical data			
protection class IP of the enclosure	IP20		
protection class IP of the terminal	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	2 000 m		
vibration resistance according to IEC 60068-2-6	5 500 Hz: 0,075 mm		
shock resistance	8g / 10 ms		
surge voltage resistance rated value	4 000 V		
EMC emitted interference	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 radio interference. The user is required to implement appropriate measures in this case.		
reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750	KT		
reference code according to EN 61346-2	F		
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 61508	3		
 for delayed release circuit according to IEC 61508 	SIL2		
SIL Claim Limit (subsystem) according to EN 62061	3		
performance level (PL)			
• for delayed release circuit according to EN ISO 13849-1	d		
category according to EN ISO 13849-1	4		
hardware fault tolerance according to IEC 61508	1		
safety device type according to IEC 61508-2	Type A		
PFHD with high demand rate according to EN 62061	2.7E-9 1/h		
Average probability of failure on demand (PFDavg) with low	2.4E-6 1/y		

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		24 V
magnet con	operating range factor control supply voltage rated value of magnet coil	
• at AC	• at AC	

— at 50 Hz	0.85 1.1				
— at 60 Hz	0.85 1.1				
• at DC	0.85 1.1				
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	2x (0.25 1.5 mm²)				
 finely stranded 					
with core end processing	2 x (0.25 1.5 mm²)				
without core end processing	2x (0.25 1.5 mm²)				
type of connectable conductor cross-sections for AWG cables					
• solid	2x (24 16)				
stranded	2x (24 16)				
Product Function					
product function					
light barrier monitoring	No	No			
standstill monitoring	No				
protective door monitoring	No				
automatic start	No				
 magnetically operated switch monitoring NC-NO 	No				
 rotation speed monitoring 	No				
laser scanner monitoring	No				
monitored start-up	Yes				
light array monitoring	No				
magnetically operated switch monitoring NC-NC	No				
EMERGENCY OFF function	Yes				
 pressure-sensitive mat monitoring 	Yes				
suitability for interaction press control	No				
suitability for use					
monitoring of floating sensors	Yes				
monitoring of non-floating sensors	No				
safety switch	Yes				
position switch monitoring	Yes				
EMERGENCY-OFF circuit monitoring	Yes				
valve monitoring	No				
tactile sensor monitoring	No				
magnetically operated switch monitoring	No				
safety-related circuits	Yes				
Certificates/ approvals					
certificate of suitability	UL, CSA, EN 60204-1, EN ISC) 12100, EN 954-1, IEC 6	1508		
TÜV (German technical inspectorate) certificate	Yes				
UL approval	Yes				
BG BIA approval	Yes				
General Product Approval		ЕМС	Functional Safety/Safety of Ma- chinery		
		_	Type Examination Cer-		











Type Examination Certificate

Test Certificates

other

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=3TK2827-2BB41

Cax online generator

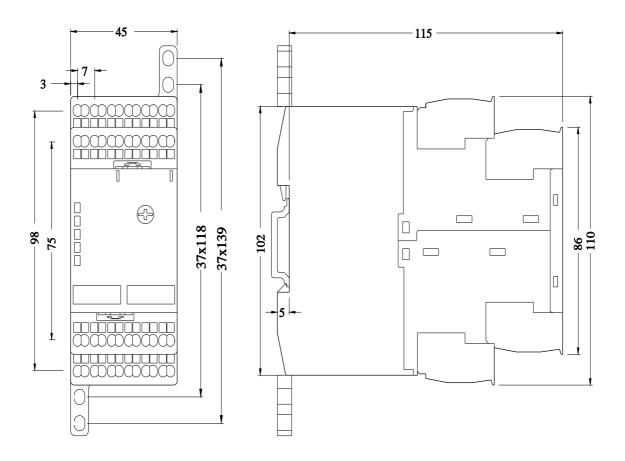
 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3TK2827-2BB41}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3TK2827-2BB41

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TK2827-2BB41&lang=en



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