



SIRIUS,
EXPANSION MODULE 3RK32 FOR MODULAR SAFETY
SYSTEM 3RK3 2/4 F-DI,
1/2 F-DO,
24VDC/1A PARAMETERIZABLE VIA SW MSS ES WIDTH
22.5MM SCREW TERMINAL UP TO SIL3 (IEC 61508) UP
TO PERFORMANCE LEVEL E (ISO 13849-1)

General technical data:		
product brand name		SIRIUS
product designation		Modular Safety System 3RK3
Design of the product		extension module 2/4 F-DI 1/2 F-RO
Protection class IP		IP20
Resistance against shock		15g / 11 ms
Degree of pollution		3
mounting position		vertical
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-40 ... +85
• during operating	°C	-20 ... +60
• during transport	°C	-40 ... +85
Relative humidity		
• during operating phase	%	10 ... 95
Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4		2 kV (power ports)
Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5		2 kV
Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5		1 kV

Electrostatic discharge / according to IEC 61000-4-2		4 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling / according to IEC 61000-4-3		10 V/m, 3 V/m, 1 V/m
Impulse voltage resistance / rated value	V	4,000
Insulation voltage / rated value	V	300
Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
Item designation / according to DIN EN 61346-2		K
Product function		
• emergency stop function		Yes
• protective door monitoring		Yes
• evaluation: contact-free acting protection device		Yes
• evaluation: selector switch		Yes
• step mat monitoring		Yes
• evaluation: two-hand control panel		Yes
• evaluation: enabling switch		Yes
• monitored start-up		Yes

Control circuit:

type of voltage		DC
Control supply voltage / 1 / for DC / rated value	V	24
Operating range factor control supply voltage rated value		
• of the solenoid		0.85 ... 1.15

Auxiliary circuit:

Type of the safety-related wiring		
• outputs parameterisable		Yes
Number of inputs		
• safety-related		4
• not safety-related		0
Number of outputs		
• as contact-affected switching element / safety-related		
• 1-channel		2
• 2-channel		0
• as contact-less semiconductor switching element		
• safety-related / 2-channel		0
• not safety-oriented / 2-channel		0
• to the test of contact afflicted sensors		2

Short-circuit:

Design of the fuse link / for short-circuit protection of the contact afflicted switching element / required		NH Typ 3NA, DIAZED Typ 5SB, NEOZED Typ 5SE
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Installation/mounting/dimensions:

Type of mounting		standard rail
Width	mm	22.5
Height	mm	102
Depth	mm	124

Connections:

Product function / removable terminal for auxiliary and control circuit		Yes
Design of the electrical connection / for auxiliary and control current circuit		screw-type terminals
Conductor cross-section that can be connected / for auxiliary contact		
<ul style="list-style-type: none"> • solid 	mm ²	0.5 ... 4
<ul style="list-style-type: none"> • finely stranded • with conductor end processing 	mm ²	0.5 ... 2.5

Certificates/approvals:

General Product Approval

EMC



CCC



CSA



GOST



UL



C-TICK

Functional Safety / Safety of Machinery

Test Certificates

Shipping Approval



VDE

[other](#)

[Special Test Certificate](#)



RMRS

other

[Confirmation](#)

[Declaration of Conformity](#)



Profibus

[Environmental Confirmations](#)

Safety:

Safety Integrity Level (SIL) / according to IEC 61508		SIL3
Performance level (PL) / according to ISO 13849-1		e
Category / according to EN 954-1		4
Probability of dangerous failure per hour (PFHD) / with high demand rate / according to EN 62061	1/h	0.00000000379
Average probability of failure on demand (PFDavg)		0.00000585 1/y
T1 value / for proof test interval or service life / according to IEC 61508	a	20
Protection against electrical shock		finger-safe

Further information:

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

Cax online generator:

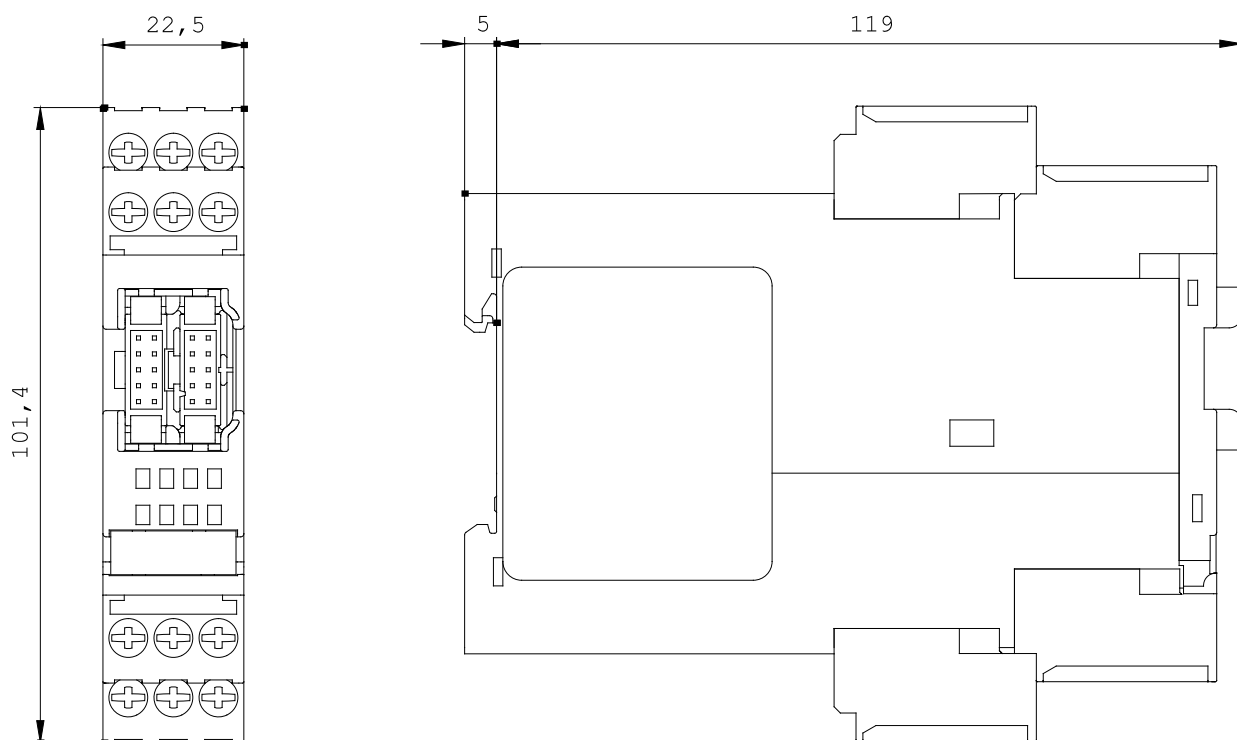
<http://www.siemens.com/cax>

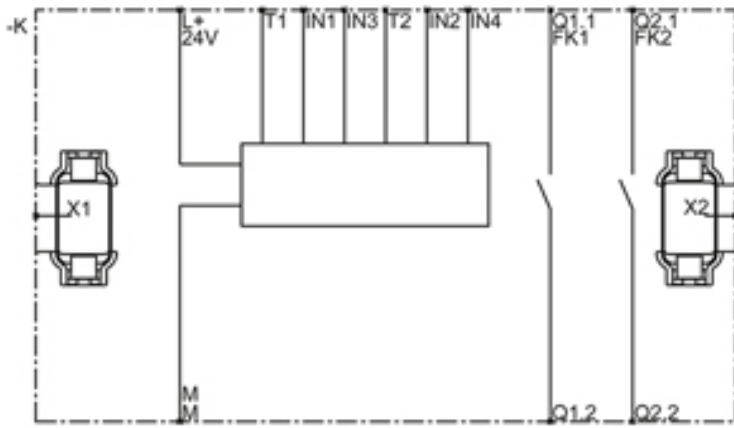
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RK3221-1AA10/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RK3221-1AA10





last change:

Feb 18, 2013