

SIRIUS,  
EXPANSION MODULE 3RK32 FOR MODULAR SAFETY  
SYSTEM 3RK3 2/4 F-DI,  
2 F-DO,  
24V DC/1.5A PARAMETERIZABLE VIA SW MSS ES  
WIDTH 22.5MM SPRING-LOADED 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 2 F-DO
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
<b>Ambient temperature</b>		
• during storage	°C	-40 ... +85
• during operating	°C	-20 ... +60
• during transport	°C	-40 ... +85
<b>Relative humidity</b>		
• 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

<b>Electrostatic discharge / according to IEC 61000-4-2</b>		4 kV contact discharge / 8 kV air discharge
<b>Field-bound parasitic coupling / according to IEC 61000-4-3</b>		10 V/m, 3 V/m, 1 V/m
<b>Impulse voltage resistance / rated value</b>	V	500
<b>Insulation voltage / rated value</b>	V	50
<b>Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</b>		K
<b>Item designation / according to DIN EN 61346-2</b>		K
<b>Product function</b>		
• 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:

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

#### Auxiliary circuit:

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

#### Installation/mounting/dimensions:

<b>Type of mounting</b>		standard rail
<b>Width</b>	mm	22.5

Height	mm	105
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		spring-loaded terminals
Conductor cross-section that can be connected / for auxiliary contact		
<ul style="list-style-type: none"> <li>• solid</li> </ul>	mm <sup>2</sup>	0.25 ... 1.5
<ul style="list-style-type: none"> <li>• finely stranded</li> </ul>		
<ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul>	mm <sup>2</sup>	0.25 ... 1.5
<ul style="list-style-type: none"> <li>• without conductor final cutting</li> </ul>	mm <sup>2</sup>	0.25 ... 1.5

#### 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	0.000000027
Average probability of failure on demand (PFDavg)		0.00000834 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:**

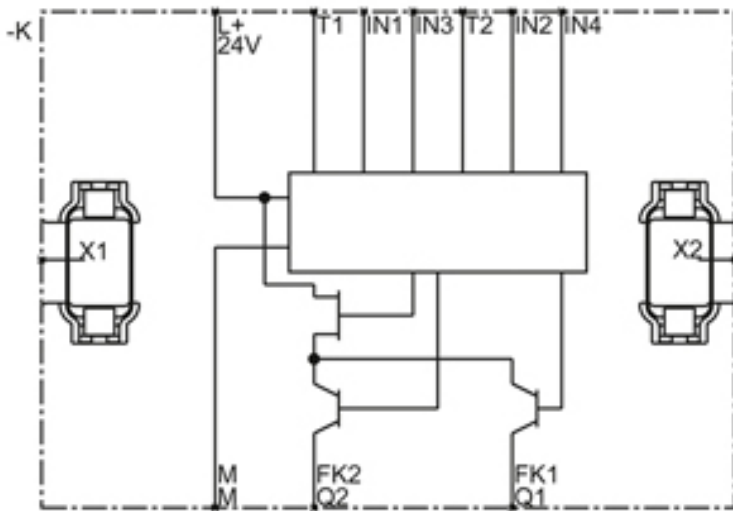
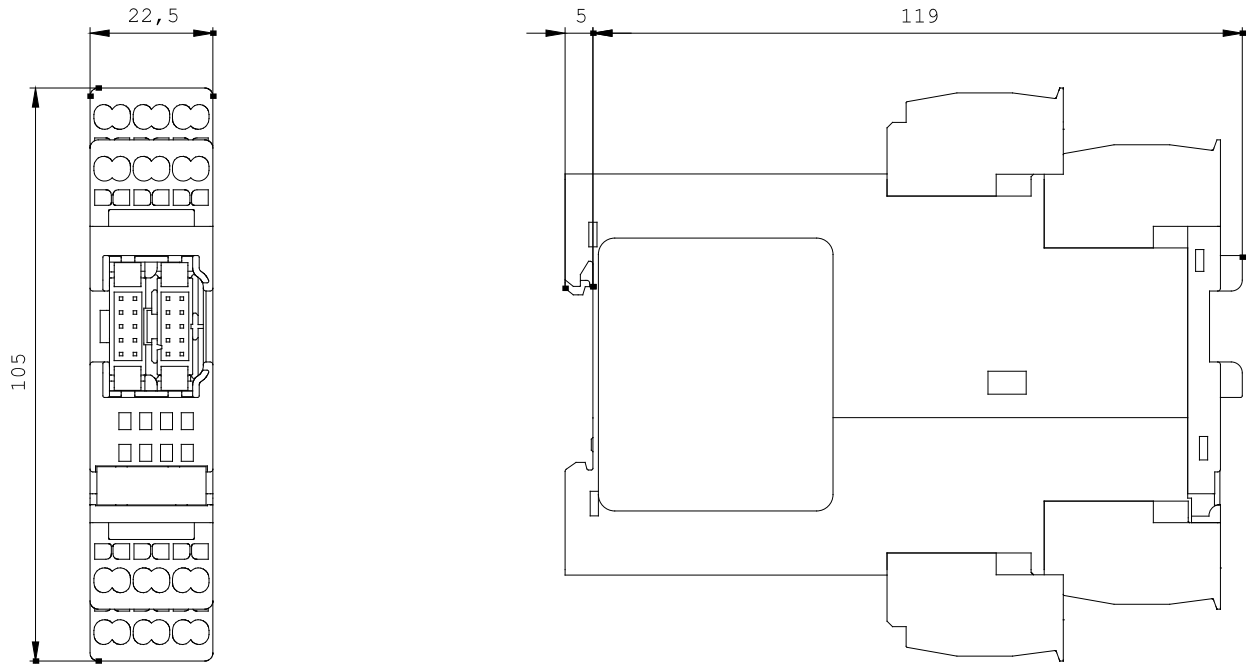
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RK3231-2AA10/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RK3231-2AA10](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RK3231-2AA10)



last change:

Feb 18, 2013