SIEMENS

Product data sheet 3RK3231-1AA10

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 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		entension 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
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

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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	500
Insulation voltage / rated value	V	50
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		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 afflicated sensors		2

Installation/mounting/dimensions:		
Type of mounting		standard rail
Width	mm	22.5

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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		
• solid	mm²	0.5 … 4
• stranded wire		
• with conductor end processing	mm²	0.5 … 2.5

Certificates/approvals:

General Product Approval | **Functional Safety / Safety of Machinery**

CCC CSA GOST UL VDE other

other

Confirmation Declaration of Conformity Profibus UL

Safety:

safety Integrated Level / 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	0.0000000027
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/3RK3231-1AA10/all

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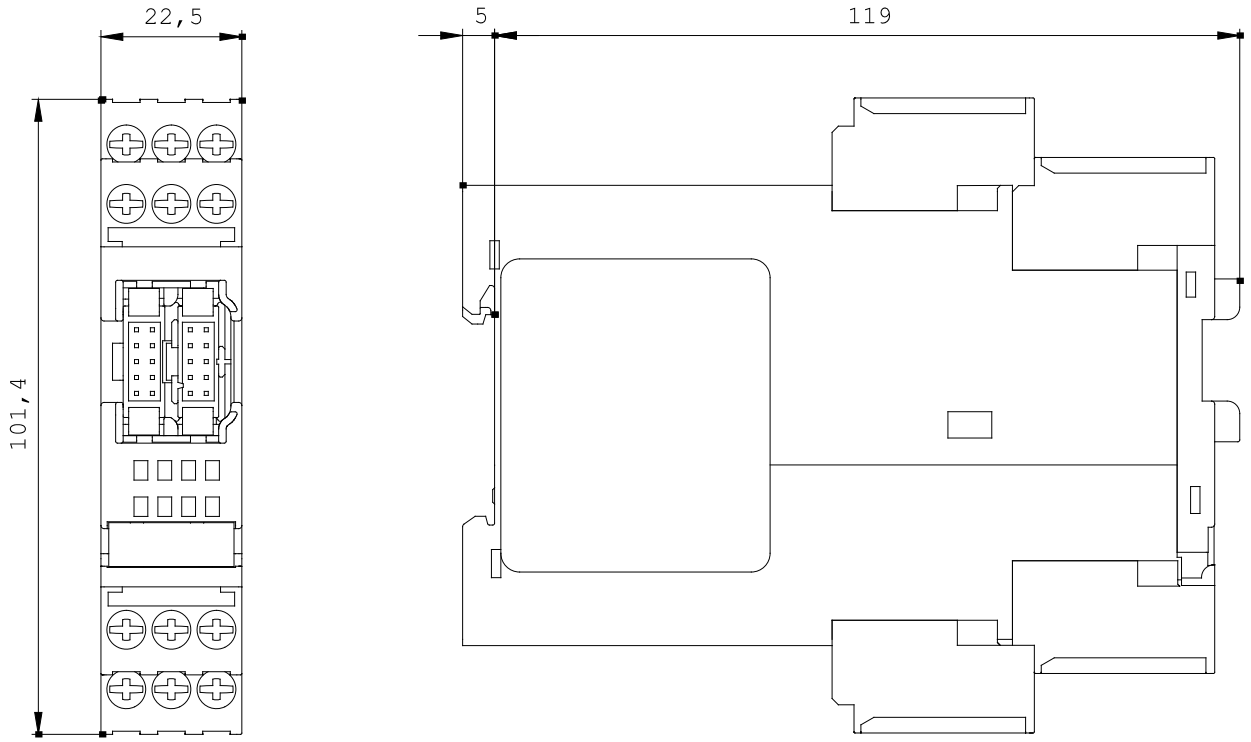
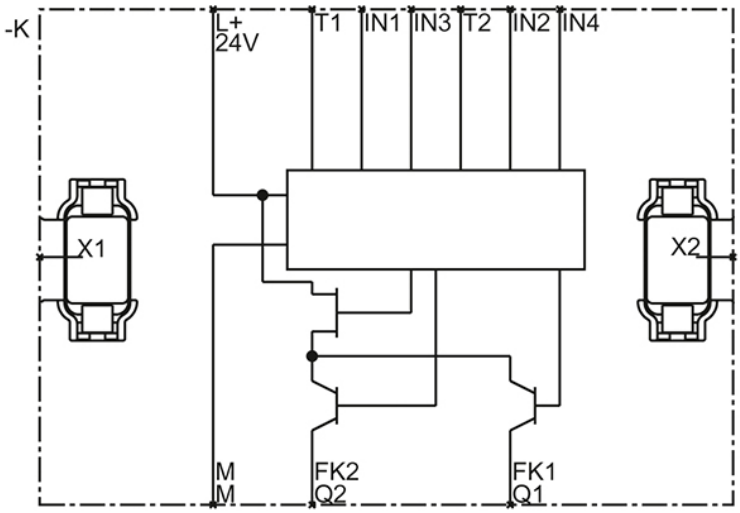
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RK3231-1AA10





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