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Data sheet 3RK3922-1AC10

Starter package for modular Safety system 3RK3 Content: Central unit MSS Advanced connection: Screw terminal Software Safety ES V1.0 Premium, USB PC cable

product brand name	SIRIUS
product category	Modular Safety System
product designation	Starter kit
suitability for use for monitoring of optoelectronic protective devices according to IEC 61496-1	Yes
suitability for use	
● monitoring of floating sensors	Yes
● monitoring of non-floating sensors	Yes
● position switch monitoring	Yes
● EMERGENCY-OFF circuit monitoring	Yes
● valve monitoring	Yes
● opto-electronic protection device monitoring	Yes
● proximity switch monitoring	Yes
● safety-related circuits	Yes
General technical data	
product function	
● EMERGENCY STOP function	Yes
● protective door monitoring	Yes
● protective door monitoring with tumbler	Yes
● muting, 2 sensor-parallel	Yes
● muting, 4 sensor-parallel	Yes
● muting, 4 sensor-sequential	Yes
● monitoring parameterizable	Yes
● evaluation: electro-sensitive protective equipment	Yes
● evaluation: selector switch	Yes
● pressure-sensitive mat monitoring	Yes
● evaluation: two-hand operator panel	Yes
● evaluation: enabling switch	Yes
● monitored start-up	Yes
● two-hand control according to EN 574	Yes
number of function blocks typical	300
insulation voltage rated value	300 V
degree of pollution	3
surge voltage resistance rated value	2 500 V
consumed current for rated value of supply voltage	1.685 A
protection class IP	
● of the enclosure	IP20
● of the terminal	IP20
shock resistance	15g / 11 ms
vibration resistance according to IEC 60068-2-6	5 ... 500 Hz: 0.75 mm
operating frequency maximum	1 000 1/h
mechanical service life (operating cycles) typical	10 000 000
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	07/01/2006
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Diboron trioxide - 1303-86-2
Net Weight	0.81 kg

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product function suitable for AS-i Power24V	Yes
product function diagnostics with CTT2 device	Yes
number of safe signals for remote shutdown or cross traffic by means of AS-interface	12
consumed current from profile conductors of the AS-Interface	
● at 30 V maximum	45 mA
● at 24 V with AS-i Power24V maximum	45 mA
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
● during operation	-20 ... +60 °C
● during storage	-40 ... +85 °C
● during transport	-40 ... +85 °C
air pressure according to SN 31205	70 ... 106 kPa
Electromagnetic compatibility	
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.
conducted interference	
● due to burst according to IEC 61000-4-4	2 kV (power ports) / 1 kV (signal ports)
● due to conductor-earth surge according to IEC 61000-4-5	2 kV
● due to conductor-conductor surge according to IEC 61000-4-5	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge
Safety related data	
diagnostics test interval by internal test function maximum	1 000 s
stop category according to IEC 60204-1	0 / 1
category according to EN 954-1	4
IEC 62061	
SIL Claim Limit (subsystem) according to EN 62061	Kat. 4 / SIL3 / PIe
Safety Integrity Level (SIL)	
● **according to IEC 62061**	SIL 3
PFHD with high demand rate	
● according to IEC 62061	1E-8 1/h
ISO 13849	
performance level (PL) according to EN ISO 13849-1	e
category according to EN ISO 13849-1	4
performance level (PL)	
● **according to ISO 13849-1**	PL e
IEC 61508	
Safety Integrity Level (SIL)	
● according to IEC 61508	3
hardware fault tolerance	
● according to IEC 61508	1
T1 value	
● for proof test interval or service life according to IEC 61508	20 a
Electrical Safety	
touch protection against electrical shock	finger-safe
Short-circuit protection	
design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required	NH Type 3NA, DIAZED Type 5SB, NEOZED Type 5SE
Inputs/ Outputs	
product function	
● parameterizable inputs	Yes
● parameterizable outputs	Yes
number of inputs	
● safety-related	8
● non-safety-related	0

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input delay time	0 ... 150 ms
ingress aquisition time at digital input maximum	60 ms
input delay time at digital input maximum	150 ms
number of outputs	
● safety-related 2-channel	2
● for testing contact-based sensors	2
number of outputs as contact-affected switching element safety-related	
● 1-channel	0
● 2-channel	1
number of outputs as contact-less semiconductor switching element	
● safety-related 2-channel	1
● non-safety-related	0
design of the contactless switching element safety-related	P potential
pulse duration of the contactless semiconductor contact block for switching off safety-related maximum	1 ms
recovery time of the safe outputs	420 ms
dark period of the common drivers	1 ms
switching capacity current of semiconductor outputs at DC-13 at 24 V	1.5 A
Communication/ Protocol	
protocol optional is supported	
● PROFIBUS DP protocol	Yes; when using the DP interface module; 64 bit cyclical data
protocol is supported AS-Interface protocol	Yes
Control circuit/ Control	
type of voltage	DC
operating range factor control supply voltage rated value at DC	
● initial value	0.85
● full-scale value	1.15
inrush current peak	
● at 24 V	70 A
duration of inrush current peak	
● at 24 V	1 ms
operating power rated value	4.5 W
Installation/ mounting/ dimensions	
mounting position	vertical
fastening method	Snap-mounted to DIN rail or screw-mounted with additional push-in lug
height	111 mm
width	45 mm
depth	124 mm
Connections/ Terminals	
product function removable terminal	Yes
type of electrical connection	screw terminal
type of connectable conductor cross-sections	
● solid	1x (0.5 ... 4.0mm²), 2x (0.5 ... 2.5 mm²)
● finely stranded with core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
● for AWG cables solid	2x (20 ... 14)
● for AWG cables stranded	2x (20 ... 14)
connectable conductor cross-section finely stranded with core end processing	0.5 ... 2.5 mm²
AWG number as coded connectable conductor cross section	
● solid	20 ... 14
● stranded	20 ... 14
DC resistance of the cable maximum	100 Ω

Approvals Certificates

Environment	General Product Approval	Functional Saftey	Test Certificates	other

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Environmental Con-firmations | Miscellaneous | Type Test Certific-ates/Test Report | Confirmation

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
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=3RK3922-1AC10
Cax online generator
https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RK3922-1AC10
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RK3922-1AC10
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RK3922-1AC10&lang=en

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