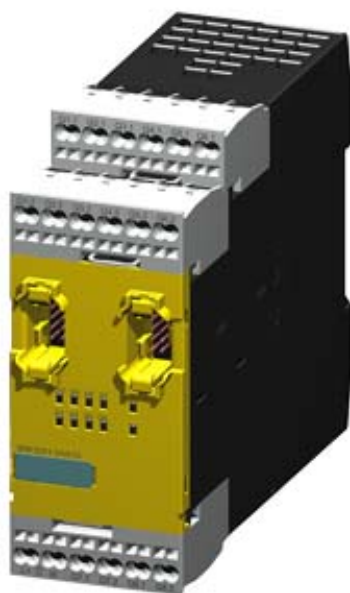




SIRIUS,  
3RK32 EXPANSION MODULE FOR MODULAR 3RK3  
SAFETY SYSTEM 4/8 F-RO,  
24 V DC/2A PARAMETERIZABLE VIA SW MSS ES 45MM  
MODULE WIDTH CAGE-CLAMP TERMINAL UP TO SIL3  
(IEC 61508) UP TO PERFORMANCE LEVEL E (ISO 13849-  
1)

### General technical data:

|                                                                                           |    |                            |
|-------------------------------------------------------------------------------------------|----|----------------------------|
| product brand name                                                                        |    | SIRIUS                     |
| product designation                                                                       |    | Modular Safety System 3RK3 |
| Design of the product                                                                     |    | Expansion module 4/8 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                       |

|                                                                                                    |   |                                             |
|----------------------------------------------------------------------------------------------------|---|---------------------------------------------|
| <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 | 4,000                                       |
| <b>Insulation voltage / rated value</b>                                                            | V | 300                                         |
| <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                                                                          |   | No                                          |
| • protective door monitoring                                                                       |   | No                                          |
| • evaluation: contact-free acting protection device                                                |   | No                                          |
| • evaluation: selector switch                                                                      |   | No                                          |
| • step mat monitoring                                                                              |   | No                                          |
| • evaluation: two-hand control panel                                                               |   | No                                          |
| • evaluation: enabling switch                                                                      |   | No                                          |
| • monitored start-up                                                                               |   | No                                          |

|                                                                  |   |               |
|------------------------------------------------------------------|---|---------------|
| <b>Control circuit:</b>                                          |   |               |
| <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 |

|                                                          |  |     |
|----------------------------------------------------------|--|-----|
| <b>Auxiliary circuit:</b>                                |  |     |
| <b>Type of the safety-related wiring</b>                 |  |     |
| • outputs parameterisable                                |  | Yes |
| <b>Number of inputs</b>                                  |  |     |
| • safety-related                                         |  | 0   |
| • not safety-related                                     |  | 0   |
| <b>Number of outputs</b>                                 |  |     |
| • as contact-affected switching element / safety-related |  |     |
| • 1-channel                                              |  | 8   |
| • 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               |  | 0   |

|                                                                                                                     |  |                                            |
|---------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------|
| <b>Short-circuit:</b>                                                                                               |  |                                            |
| <b>Design of the fuse link / for short-circuit protection of the contact afflicted switching element / required</b> |  | NH Typ 3NA, DIAZED Typ 5SB, NEOZED Typ 5SE |

**Installation/mounting/dimensions:**

|                  |    |               |
|------------------|----|---------------|
| Type of mounting |    | standard rail |
| Width            | mm | 45            |
| Height           | mm | 113           |
| 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           |                 |                         |
| • solid                                                                         | mm <sup>2</sup> | 0.25 ... 1.5            |
| • finely stranded                                                               |                 |                         |
| • with conductor end processing                                                 | mm <sup>2</sup> | 0.25 ... 1.5            |
| • without conductor final cutting                                               | 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****other**

VDE

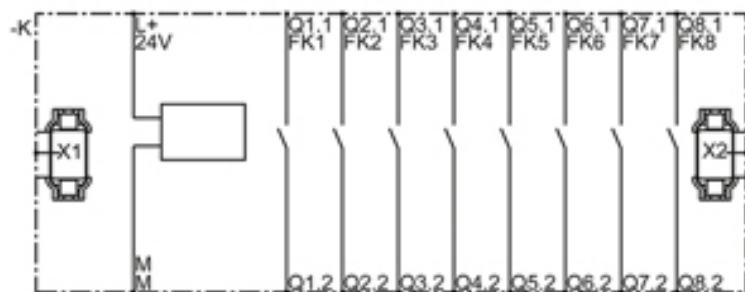
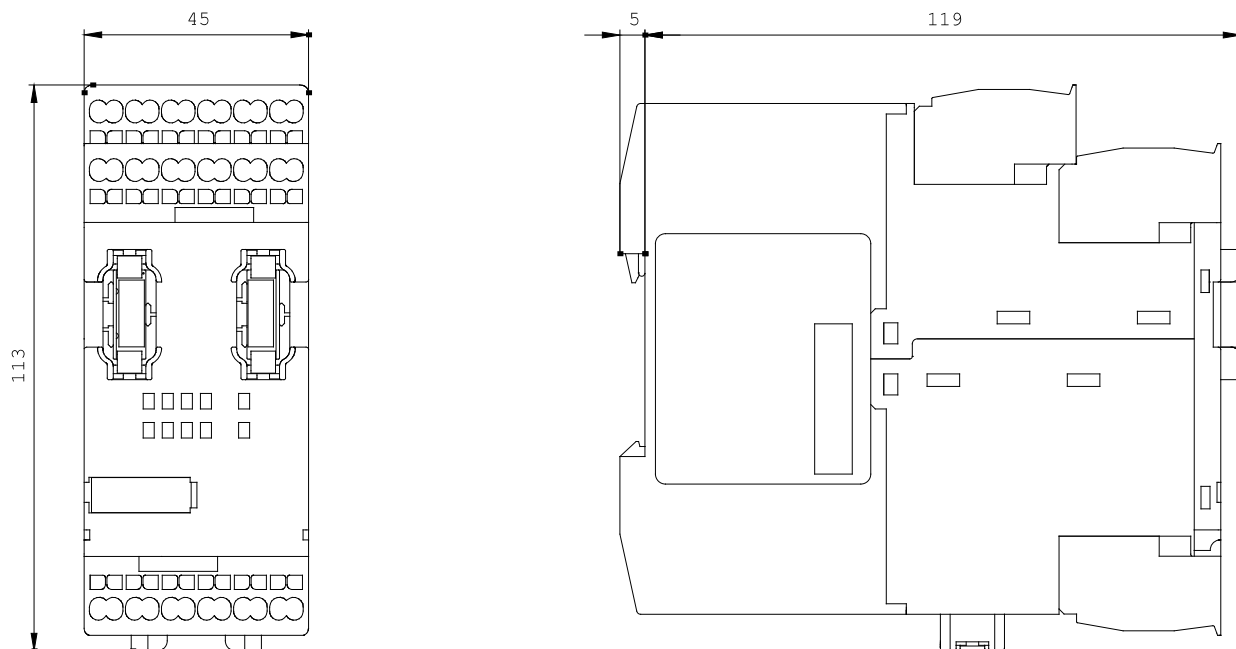
[other](#)[Special Test Certificate](#)

RMRS

[Confirmation](#)[Declaration of Conformity](#)**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 | 0.00000000715 |
| Average probability of failure on demand (PFDavg)                                                |     | 0.0000436 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>



last change:

Feb 18, 2013