



Input coupler Optocoupler 1 NO contact, Transistor Input 110-230 V AC/DC Output max. 30 V DC, 0.5 A short circuit-proof Overall width 6.2 mm screw terminal Thermal current 0.5 A

|                                                                          |                                                         |
|--------------------------------------------------------------------------|---------------------------------------------------------|
| product brand name                                                       | SIRIUS                                                  |
| product category                                                         | SIRIUS 3RQ3 coupling relays in slim design              |
| product designation                                                      | Coupling relays with semiconductor output (not plug-in) |
| design of the product                                                    | Input coupling link                                     |
| product type designation                                                 | 3RQ3                                                    |
| <b>General technical data</b>                                            |                                                         |
| display version LED                                                      | Yes                                                     |
| product feature protective coating on printed-circuit board              | No                                                      |
| product component                                                        |                                                         |
| • relay output                                                           | No                                                      |
| • semi-conductor output                                                  | Yes                                                     |
| consumed active power                                                    | 0.5 W                                                   |
| surge voltage resistance rated value                                     | 4 kV                                                    |
| protection class IP                                                      | IP20                                                    |
| flammability class of enclosure material                                 | UL94 V-0                                                |
| shock resistance                                                         |                                                         |
| • according to IEC 60068-2-27                                            | sinusoidal half-wave 15g / 11 ms                        |
| switching frequency                                                      | 0.2 Hz                                                  |
| thermal current                                                          | 0.5 A                                                   |
| reference code according to IEC 81346-2                                  | K                                                       |
| Substance Prohibitance (Date)                                            | 03/25/2015                                              |
| <b>Control circuit/ Control</b>                                          |                                                         |
| control supply voltage at AC                                             |                                                         |
| • at 50 Hz rated value                                                   | 110 ... 230 V                                           |
| • at 60 Hz rated value                                                   | 110 ... 230 V                                           |
| control supply voltage frequency                                         |                                                         |
| • 1 rated value                                                          | 50 Hz                                                   |
| • 2 rated value                                                          | 60 Hz                                                   |
| control supply voltage at DC rated value                                 |                                                         |
| •                                                                        | 110 ... 230 V                                           |
| operating range factor control supply voltage rated value at DC          |                                                         |
| • initial value                                                          | 0.7                                                     |
| • full-scale value                                                       | 1.1                                                     |
| operating range factor control supply voltage rated value at AC at 50 Hz |                                                         |
| • initial value                                                          | 0.7                                                     |
| • full-scale value                                                       | 1.1                                                     |
| operating range factor control supply voltage rated value at AC at 60 Hz |                                                         |
| • initial value                                                          | 0.7                                                     |

|                                                                 |                                             |
|-----------------------------------------------------------------|---------------------------------------------|
| • full-scale value                                              | 1.1                                         |
| minimum switching voltage when switching on                     | 74 V                                        |
| maximum switching voltage when switching off                    | 20 V                                        |
| ON-delay time                                                   |                                             |
| • at AC maximum                                                 | 5 ms                                        |
| • at DC maximum                                                 | 3 ms                                        |
| OFF-delay time maximum                                          | 7 ms                                        |
| <b>Mechanical data</b>                                          |                                             |
| product component plug-in socket                                | No                                          |
| <b>Auxiliary circuit</b>                                        |                                             |
| type of switching contact                                       | NO contact                                  |
| number of NO contacts for auxiliary contacts                    | 1                                           |
| <b>Main circuit</b>                                             |                                             |
| type of voltage                                                 | AC/DC                                       |
| <b>Inputs/ Outputs</b>                                          |                                             |
| property of the output short-circuit proof                      | No                                          |
| switching voltage of the semiconductor output at DC             | 10 ... 30 V                                 |
| ampacity of the semiconductor output at DC                      | 10 mA ... 0.5 A                             |
| <b>Electromagnetic compatibility</b>                            |                                             |
| EMC emitted interference according to IEC 60947-1               | ambience A (industrial sector)              |
| EMC immunity according to IEC 60947-1                           | corresponds to degree of severity 3         |
| conducted interference                                          |                                             |
| • due to burst according to IEC 61000-4-4                       | 2 kV                                        |
| • 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              | 6 kV contact discharge / 8 kV air discharge |
| <b>Display</b>                                                  |                                             |
| display version as status display by LED                        | LED green                                   |
| <b>Connections/ Terminals</b>                                   |                                             |
| product function removable terminal                             | No                                          |
| type of electrical connection for auxiliary and control circuit | screw-type terminals                        |
| wire length                                                     |                                             |
| • at AC maximum                                                 | 500 m                                       |
| • at DC maximum                                                 | 1 000 m                                     |
| type of connectable conductor cross-sections                    |                                             |
| • solid                                                         | 1x (0.25 ... 2.5 mm <sup>2</sup> )          |
| • finely stranded with core end processing                      | 1x (0.25 ... 1.5 mm <sup>2</sup> )          |
| • for AWG cables solid                                          | 1 x (20 ... 14)                             |
| connectable conductor cross-section                             |                                             |
| • solid                                                         | 0.25 ... 2.5 mm <sup>2</sup>                |
| • finely stranded with core end processing                      | 0.25 ... 1.5 mm <sup>2</sup>                |
| AWG number as coded connectable conductor cross section         |                                             |
| • solid                                                         | 20 ... 14                                   |
| tightening torque with screw-type terminals                     | 0.5 ... 0.6 N·m                             |
| <b>Installation/ mounting/ dimensions</b>                       |                                             |
| mounting position                                               | any                                         |
| fastening method                                                | snap-on mounting                            |
| height                                                          | 93 mm                                       |
| width                                                           | 6.2 mm                                      |
| depth                                                           | 72.5 mm                                     |
| required spacing                                                |                                             |
| • with side-by-side mounting                                    |                                             |
| — forwards                                                      | 0 mm                                        |
| — backwards                                                     | 0 mm                                        |
| — upwards                                                       | 0 mm                                        |
| — downwards                                                     | 0 mm                                        |
| — at the side                                                   | 0 mm                                        |
| • for grounded parts                                            |                                             |

- forwards 0 mm
- backwards 0 mm
- upwards 0 mm
- at the side 0 mm
- downwards 0 mm
- for live parts
  - forwards 0 mm
  - backwards 0 mm
  - upwards 0 mm
  - downwards 0 mm
  - at the side 0 mm

#### Ambient conditions

|                                                         |                |
|---------------------------------------------------------|----------------|
| installation altitude at height above sea level maximum | 2 000 m        |
| <b>ambient temperature</b>                              |                |
| • during operation                                      | -25 ... +60 °C |
| • during storage                                        | -40 ... +85 °C |
| • during transport                                      | -40 ... +85 °C |
| relative humidity during operation                      | 10 ... 95 %    |

#### Approvals Certificates

##### General Product Approval



[Confirmation](#)



| General Product Approval | EMV | Test Certificates | Marine / Shipping | other |
|--------------------------|-----|-------------------|-------------------|-------|
|--------------------------|-----|-------------------|-------------------|-------|



[KC](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### 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=3RQ3070-1SG30>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3070-1SG30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ3070-1SG30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RQ3070-1SG30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3070-1SG30&lang=en)

##### Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ3070-1SG30/manual>



