



Coupling relay in industrial enclosure 2 changeover contacts Wide voltage range 24 V to 240 V AC/DC Spring-type terminals

|                                                                                                               |                                        |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>product brand name</b>                                                                                     | SIRIUS                                 |
| <b>product designation</b>                                                                                    | Coupling relay in industrial enclosure |
| <b>product type designation</b>                                                                               | 3RQ2                                   |
| <b>General technical data</b>                                                                                 |                                        |
| <b>consumed active power</b>                                                                                  | 4.5 W                                  |
| insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value | 300 V                                  |
| <b>degree of pollution</b>                                                                                    | 3                                      |
| <b>surge voltage resistance rated value</b>                                                                   | 4 kV                                   |
| <b>maximum permissible voltage for safe isolation</b>                                                         |                                        |
| • between auxiliary and auxiliary circuit                                                                     | 300 V                                  |
| • between control and auxiliary circuit acc. to IEC 60947-1                                                   | 300 V                                  |
| <b>protection class IP</b>                                                                                    | IP20                                   |
| <b>shock resistance</b>                                                                                       |                                        |
| • acc. to IEC 60068-2-27                                                                                      | 11g / 15 ms                            |
| • for railway applications acc. to DIN EN 61373                                                               | Category 1, Class B                    |
| <b>vibration resistance</b>                                                                                   |                                        |
| • acc. to IEC 60068-2-6                                                                                       | 10 ... 55 Hz: 0.35 mm                  |
| • for railway applications acc. to DIN EN 61373                                                               | Category 1, Class B                    |
| <b>switching behavior</b>                                                                                     | monostable                             |
| mechanical service life (switching cycles) typical                                                            | 10 000 000                             |
| electrical endurance (switching cycles) at AC-15 at 230 V typical                                             | 100 000                                |
| <b>thermal current of the switching element with contacts maximum</b>                                         | 5 A                                    |
| <b>reference code acc. to IEC 81346-2</b>                                                                     | K                                      |
| <b>Control circuit/ Control</b>                                                                               |                                        |
| <b>control supply voltage 1 at AC</b>                                                                         |                                        |
| • at 50 Hz                                                                                                    | 24 ... 240 V                           |
| • at 60 Hz                                                                                                    | 24 ... 240 V                           |
| • control supply voltage 1 at DC                                                                              | 24 ... 240 V                           |
| <b>operating range factor control supply voltage rated value at DC</b>                                        |                                        |
| • initial value                                                                                               | 0.7                                    |
| • full-scale value                                                                                            | 1.1                                    |
| <b>operating range factor control supply voltage rated value at AC at 50 Hz</b>                               |                                        |
| • initial value                                                                                               | 0.7                                    |

|                                                                                                                                     |                                                                                    |
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| <ul style="list-style-type: none"> <li>• full-scale value</li> </ul>                                                                | 1.1                                                                                |
| <b>operating range factor control supply voltage rated value at AC at 60 Hz</b>                                                     |                                                                                    |
| <ul style="list-style-type: none"> <li>• initial value</li> </ul>                                                                   | 0.7                                                                                |
| <ul style="list-style-type: none"> <li>• full-scale value</li> </ul>                                                                | 1.1                                                                                |
| <b>switch ON delay time</b>                                                                                                         |                                                                                    |
| <ul style="list-style-type: none"> <li>• at AC maximum</li> </ul>                                                                   | 10 ms                                                                              |
| <ul style="list-style-type: none"> <li>• at DC maximum</li> </ul>                                                                   | 10 ms                                                                              |
| <b>OFF delay time</b>                                                                                                               | 100 ms                                                                             |
| <b>design of the relay operating mechanism</b>                                                                                      | poled                                                                              |
| <b>product component plug-in socket</b>                                                                                             | No                                                                                 |
| <b>Short-circuit protection</b>                                                                                                     |                                                                                    |
| design of the fuse link for short-circuit protection of the auxiliary switch required                                               | fuse gL/gG: 6 A                                                                    |
| <b>Auxiliary circuit</b>                                                                                                            |                                                                                    |
| <b>material of switching contacts</b>                                                                                               | AgSnO <sub>2</sub>                                                                 |
| <b>number of NC contacts for auxiliary contacts</b>                                                                                 | 0                                                                                  |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                 | 0                                                                                  |
| number of CO contacts for auxiliary contacts                                                                                        | 2                                                                                  |
| <b>contact reliability of auxiliary contacts</b>                                                                                    | one incorrect switching operation of 100 million switching operations (17 V, 5 mA) |
| <b>type of voltage</b>                                                                                                              | AC/DC                                                                              |
| <b>Outputs</b>                                                                                                                      |                                                                                    |
| <b>ampacity of the output relay at AC-15</b>                                                                                        |                                                                                    |
| <ul style="list-style-type: none"> <li>• at 24 V at 50/60 Hz</li> </ul>                                                             | 3 A                                                                                |
| <ul style="list-style-type: none"> <li>• at 110 V at 50/60 Hz</li> </ul>                                                            | 3 A                                                                                |
| <ul style="list-style-type: none"> <li>• at 250 V at 50/60 Hz</li> </ul>                                                            | 3 A                                                                                |
| <b>ampacity of the output relay at DC-13</b>                                                                                        |                                                                                    |
| <ul style="list-style-type: none"> <li>• at 24 V</li> </ul>                                                                         | 1 A                                                                                |
| <ul style="list-style-type: none"> <li>• at 125 V</li> </ul>                                                                        | 0.2 A                                                                              |
| <ul style="list-style-type: none"> <li>• at 250 V</li> </ul>                                                                        | 0.1 A                                                                              |
| <b>Electromagnetic compatibility</b>                                                                                                |                                                                                    |
| EMC emitted interference acc. to IEC 60947-1                                                                                        | ambience A (industrial sector)                                                     |
| <b>EMC immunity acc. to IEC 60947-1</b>                                                                                             | corresponds to degree of severity 3                                                |
| <b>conducted interference</b>                                                                                                       |                                                                                    |
| <ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> </ul>                                              | 2 kV                                                                               |
| <ul style="list-style-type: none"> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>                              | 2 kV (line to ground)                                                              |
| <ul style="list-style-type: none"> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>                          | 1 kV (line to line)                                                                |
| <b>field-based interference acc. to IEC 61000-4-3</b>                                                                               | 10 V/m                                                                             |
| <b>electrostatic discharge acc. to IEC 61000-4-2</b>                                                                                | 4 kV contact discharging, 8 kV air discharging                                     |
| <b>Safety related data</b>                                                                                                          |                                                                                    |
| <b>electromagnetic compatibility</b>                                                                                                | IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4                                        |
| <b>Connections/ Terminals</b>                                                                                                       |                                                                                    |
| product function removable terminal for auxiliary and control circuit                                                               | Yes                                                                                |
| <b>type of electrical connection</b>                                                                                                | Push-in terminal                                                                   |
| <b>type of connectable conductor cross-sections</b>                                                                                 |                                                                                    |
| <ul style="list-style-type: none"> <li>• solid</li> </ul>                                                                           | 0.5 ... 4 mm <sup>2</sup>                                                          |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>                                        | 0.5 ... 2.5 mm <sup>2</sup>                                                        |
| <ul style="list-style-type: none"> <li>• at AWG cables solid</li> </ul>                                                             | 20 ... 12                                                                          |
| <ul style="list-style-type: none"> <li>• connectable conductor cross-section solid</li> </ul>                                       | 0.5 ... 4 mm <sup>2</sup>                                                          |
| <ul style="list-style-type: none"> <li>• connectable conductor cross-section finely stranded with core end processing</li> </ul>    | 2.5 mm <sup>2</sup>                                                                |
| <ul style="list-style-type: none"> <li>• connectable conductor cross-section finely stranded without core end processing</li> </ul> | 0.5 mm <sup>2</sup>                                                                |
| <ul style="list-style-type: none"> <li>• AWG number as coded connectable conductor cross section solid</li> </ul>                   | 12 ... 20                                                                          |
| <ul style="list-style-type: none"> <li>• AWG number as coded connectable conductor</li> </ul>                                       | 12 ... 20                                                                          |

|                                                                                                                                                                                        |                                                              |
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| cross section stranded                                                                                                                                                                 |                                                              |
| stripped length of the cable for auxiliary and control contacts                                                                                                                        | 10 mm                                                        |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                              |                                                              |
| mounting position                                                                                                                                                                      | any                                                          |
| fastening method                                                                                                                                                                       | screw and snap-on mounting onto 35 mm standard mounting rail |
| height                                                                                                                                                                                 | 100 mm                                                       |
| width                                                                                                                                                                                  | 22.5 mm                                                      |
| depth                                                                                                                                                                                  | 90 mm                                                        |
| <b>Ambient conditions</b>                                                                                                                                                              |                                                              |
| installation altitude at height above sea level maximum                                                                                                                                | 2 000 m                                                      |
| <ul style="list-style-type: none"> <li>• ambient temperature during operation</li> <li>• ambient temperature during storage</li> <li>• ambient temperature during transport</li> </ul> | -40 ... +60 °C<br>-40 ... +80 °C<br>-40 ... +80 °C           |
| relative humidity during operation                                                                                                                                                     | 10 ... 95 %                                                  |
| <b>Certificates/ approvals</b>                                                                                                                                                         |                                                              |
| General Product Approval                                                                                                                                                               | EMC                                                          |



|                           |                   |                   |       |
|---------------------------|-------------------|-------------------|-------|
| Declaration of Conformity | Test Certificates | Marine / Shipping | other |
|---------------------------|-------------------|-------------------|-------|

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## Railway

[Confirmation](#)

## Further information

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=3RQ2000-2BW00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ2000-2BW00>

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

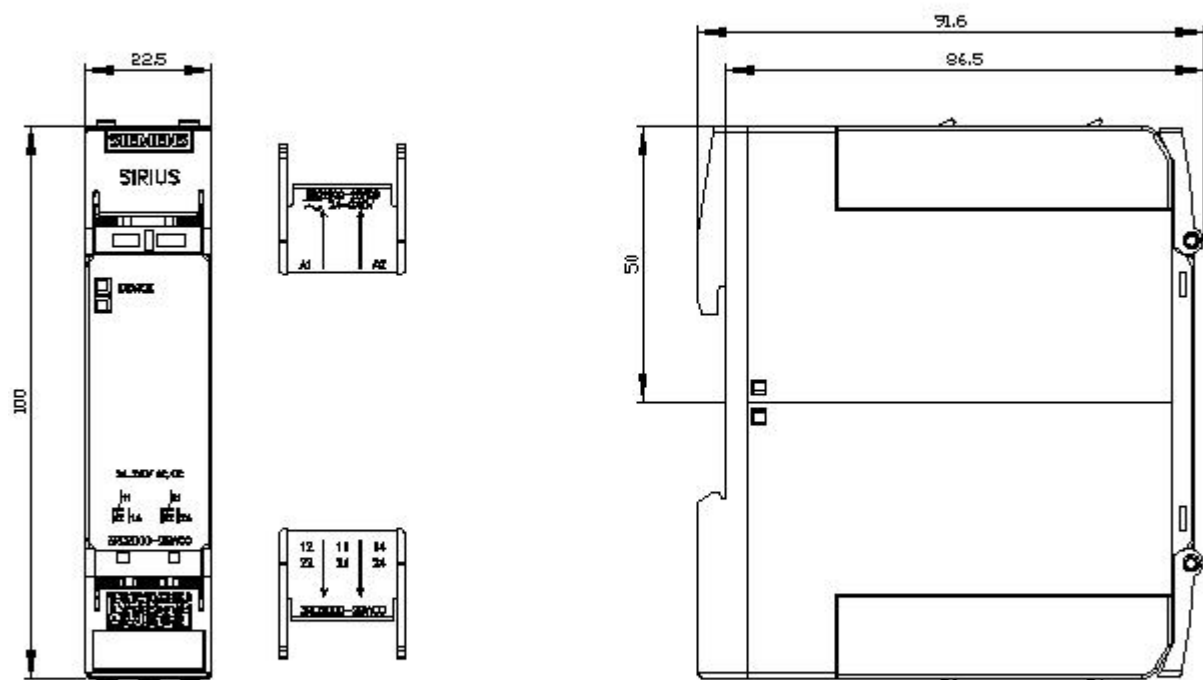
<https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-2BW00>

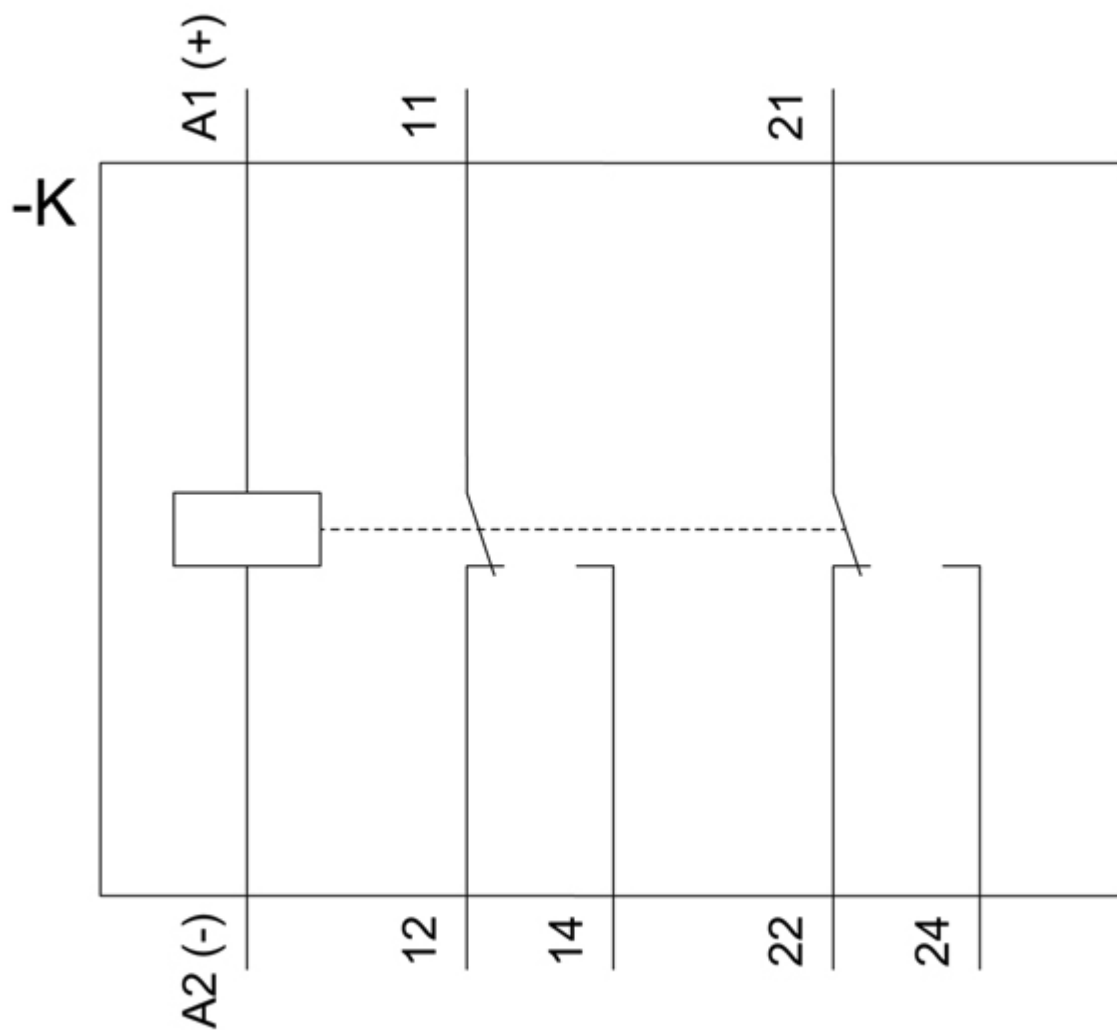
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RQ2000-2BW00&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ2000-2BW00&lang=en)

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-2BW00/manual>





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