

Coupling relays in industrial enclosure 3 change-over contacts Wide voltage range 24 V to 240 V AC/DC Spring-type terminal



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| Product brand name | SIRIUS |
| Product designation | Coupling relay in industrial enclosure |
| Product type designation | 3RQ2 |
| General technical data | |
| Consumed active power | 5 W |
| Insulation voltage <ul style="list-style-type: none">• for overvoltage category III according to IEC 60664— with degree of pollution 3 rated value | 300 V |
| Degree of pollution | 3 |
| Surge voltage resistance rated value | 4 kV |
| maximum permissible voltage for safe isolation <ul style="list-style-type: none">• between auxiliary and auxiliary circuit• between control and auxiliary circuit acc. to IEC 60947-1 | 300 V 300 V |
| Protection class IP | IP20 |
| Shock resistance <ul style="list-style-type: none">• acc. to IEC 60068-2-27• for railway applications acc. to DIN EN 61373 | 11g / 15 ms Category 1, Class B |

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|---|------------|
| Switching behavior | monostable |
| Mechanical service life (switching cycles) | |
| • typical | 10 000 000 |
| Electrical endurance (switching cycles) | |
| • at AC-15 at 230 V typical | 100 000 |
| Thermal current of the switching element with contacts maximum | 5 A |
| Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 | K |
| Reference code acc. to DIN EN 81346-2 | K |
| Reference code acc. to DIN EN 61346-2 | K |

Control circuit/ Control

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|---|--------------|
| Control supply voltage 1 at AC | |
| • at 50 Hz | 24 ... 240 V |
| • at 60 Hz | 24 ... 240 V |
| Control supply voltage 1 | |
| • at DC | 24 ... 240 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 |
| Switch-on delay time | |
| • at AC maximum | 10 ms |
| • at DC maximum | 10 ms |
| Off-delay time | 100 ms |
| Design of the relay operating mechanism | poled |
| Product component Plug-in socket | No |

Short-circuit protection

| | |
|---|-----------------|
| Design of the fuse link | |
| • for short-circuit protection of the auxiliary switch required | fuse gL/gG: 6 A |

Auxiliary circuit

| | |
|---|--------|
| Material of switching contacts | AgSnO2 |
| Number of NC contacts for auxiliary contacts | 0 |

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| Number of NO contacts for auxiliary contacts | 0 |
| Number of CO contacts | |
| • for auxiliary contacts | 3 |
| Contact reliability of auxiliary contacts | one incorrect switching operation of 100 million switching operations (17 V, 5 mA) |
| Type of voltage | AC/DC |

Outputs

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|--|-------|
| Ampacity of the output relay at AC-15 | |
| • at 24 V at 50/60 Hz | 3 A |
| • at 110 V at 50/60 Hz | 3 A |
| • at 250 V at 50/60 Hz | 3 A |
| Ampacity of the output relay at DC-13 | |
| • at 24 V | 1 A |
| • at 125 V | 0.2 A |
| • at 250 V | 0.1 A |

Electromagnetic compatibility

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|---|---|
| EMC emitted interference | |
| • acc. to IEC 60947-1 | ambience A (industrial sector) |
| EMI immunity | |
| • acc. to IEC 60947-1 | corresponds to degree of severity 3 |
| Conducted interference | |
| • due to burst acc. to IEC 61000-4-4 | 2 kV |
| • due to conductor-earth surge acc. to IEC 61000-4-5 | 2 kV (line to ground) |
| • due to conductor-conductor surge acc. to IEC 61000-4-5 | 1 kV (line to line) |
| Field-bound parasitic coupling acc. to IEC 61000-4-3 | 10 V/m |
| Electrostatic discharge acc. to IEC 61000-4-2 | 4 kV contact discharge / 8 kV air discharge |

Safety related data

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|--------------------------------------|---|
| Electromagnetic compatibility | IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4 |
|--------------------------------------|---|

Connections/Terminals

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|--|-----------------------------|
| Product function | |
| • removable terminal for auxiliary and control circuit | Yes |
| Type of electrical connection | Push-in terminal |
| Type of connectable conductor cross-sections | |
| • solid | 0.5 ... 4 mm ² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm ² |
| • at AWG conductors solid | 20 ... 12 |
| Connectable conductor cross-section | |
| • solid | 0.5 ... 4 mm ² |

| | |
|---|--|
| <ul style="list-style-type: none"> finely stranded with core end processing finely stranded without core end processing | 2.5 mm ² 0.5 mm ² |
| AWG number as coded connectable conductor cross section | |
| <ul style="list-style-type: none"> solid stranded | 12 ... 20 12 ... 20 |
| Wire stripping length of the cable | |
| <ul style="list-style-type: none"> for auxiliary and control contacts | 10 mm |

| Installation/ mounting/ dimensions | |
|------------------------------------|--|
| Mounting position | any |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail |
| Height | 100 mm |
| Width | 22.5 mm |
| Depth | 90 mm |

| Ambient conditions | |
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| Installation altitude at height above sea level | |
| <ul style="list-style-type: none"> maximum | 2 000 m |
| Ambient temperature | |
| <ul style="list-style-type: none"> during operation during storage during transport | -40 ... +70 °C -40 ... +80 °C -40 ... +80 °C |
| Relative humidity | |
| <ul style="list-style-type: none"> during operation | 10 ... 95 % |

| Certificates/approvals | | | |
|---|---|---|---|
| General Product Approval | | Declaration of Conformity | Test Certificates |
|  |  |  |  |
| CCC | CSA | UL | CE EG-Konf. |
| | | Type Test Certificates/Test Report | |

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|------------------------------|
| other |
| Confirmation |

| Further information |
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| Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs |
| Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RQ2000-2CW00 |

Cax online generator

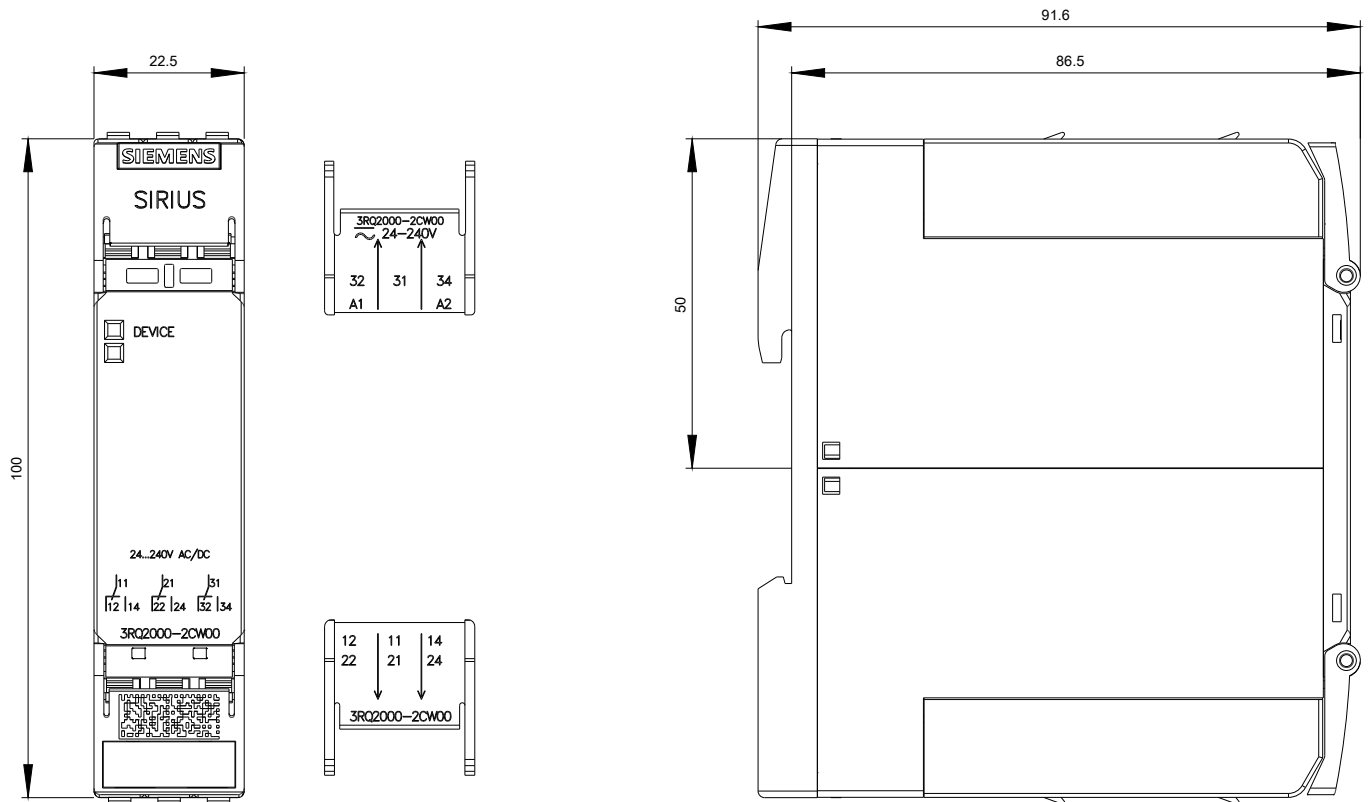
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ2000-2CW00>

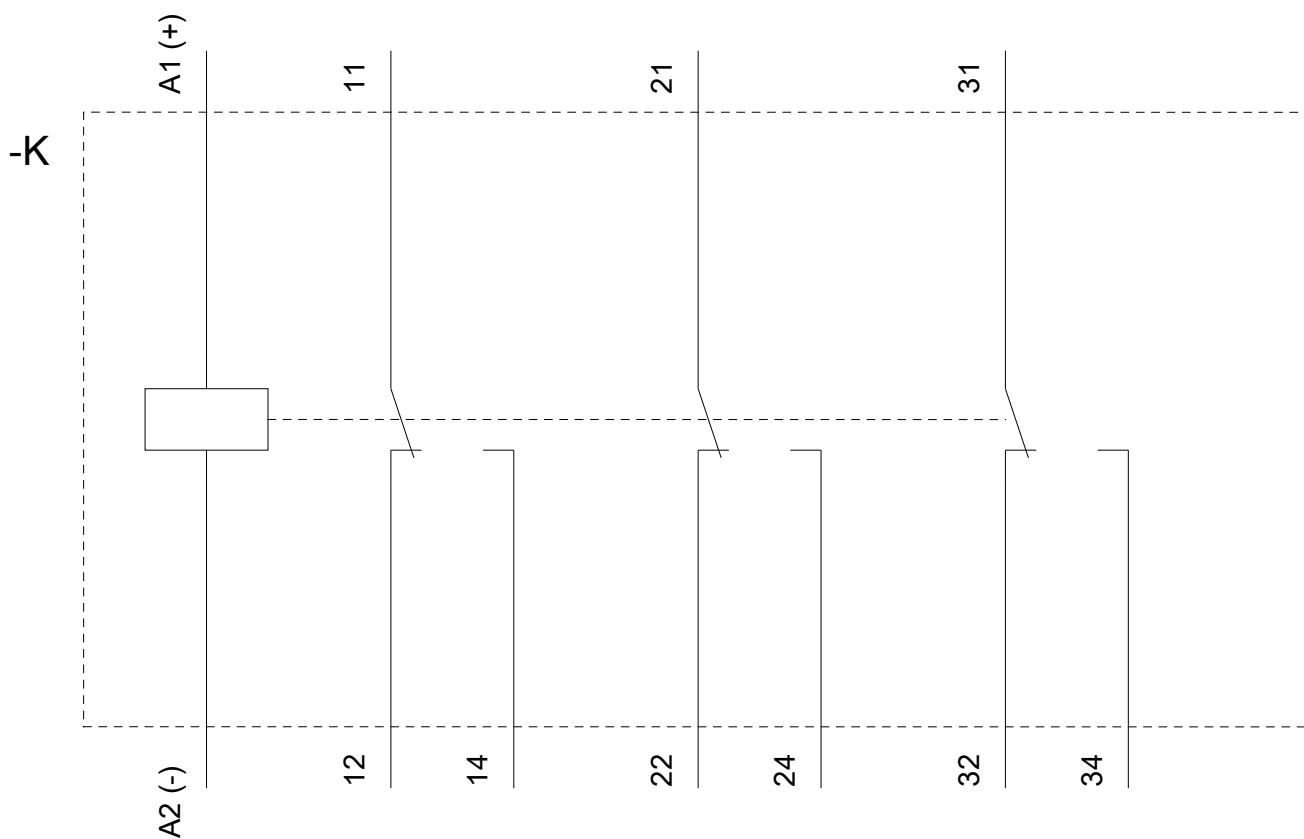
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-2CW00>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ2000-2CW00&lang=en





last modified:

12/14/2018