

Coupling relays in industrial enclosure 1 change-over contact Wide voltage range 24 V to 240 V AC/DC Spring-type terminal



Figure similar

Product brand name	SIRIUS
Product designation	Coupling relay in industrial enclosure
Product type designation	3RQ2
General technical data	
Consumed active power	4 W
Insulation voltage	300 V
• for overvoltage category III according to IEC 60664	
— with degree of pollution 3 rated value	
Degree of pollution	3
Surge voltage resistance rated value	4 kV
maximum permissible voltage for safe isolation	300 V
• between auxiliary and auxiliary circuit	
• between control and auxiliary circuit acc. to IEC 60947-1	300 V
Protection class IP	IP20
Shock resistance	11g / 15 ms
• acc. to IEC 60068-2-27	

• for railway applications acc. to DIN EN 61373	Category 1, Class B
<b>Switching behavior</b>	monostable
<b>Mechanical service life (switching cycles)</b>	
• typical	10 000 000
<b>Electrical endurance (switching cycles)</b>	
• 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 DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>	K
<b>Reference code acc. to DIN EN 81346-2</b>	K
<b>Reference code acc. to DIN EN 61346-2</b>	K

#### Control circuit/ Control

<b>Control supply voltage 1 at AC</b>	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
<b>Control supply voltage 1</b>	
• 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
• Full-scale value	1.1
<b>Operating range factor control supply voltage rated value at AC at 60 Hz</b>	
• initial value	0.7
• Full-scale value	1.1
<b>Switch-on delay time</b>	
• at AC maximum	10 ms
• at DC maximum	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

#### Short-circuit protection

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

#### Auxiliary circuit

<b>Material of switching contacts</b>	AgSnO2
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Number of NC contacts for auxiliary contacts	0
Number of NO contacts for auxiliary contacts	0
Number of CO contacts	
• for auxiliary contacts	1
Contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
Type of voltage	AC/DC

## Outputs

<b>Ampacity of the output relay at AC-15</b>	
• 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
<b>Ampacity of the output relay at DC-13</b>	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A

## Electromagnetic compatibility

<b>EMC emitted interference</b>	
• acc. to IEC 60947-1	ambience A (industrial sector)
<b>EMI immunity</b>	
• acc. to IEC 60947-1	corresponds to degree of severity 3
<b>Conducted interference</b>	
• 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)
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>	10 V/m
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>	4 kV contact discharge / 8 kV air discharge

## Safety related data

<b>Electromagnetic compatibility</b>	IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
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## Connections/Terminals

<b>Product function</b>	
• 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>	
• solid	0.5 ... 4 mm <sup>2</sup>
• finely stranded with core end processing	0.5 ... 2.5 mm <sup>2</sup>
• at AWG conductors solid	20 ... 12
<b>Connectable conductor cross-section</b>	

<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>	0.5 ... 4 mm <sup>2</sup> 2.5 mm <sup>2</sup> 0.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	12 ... 20 12 ... 20
<b>Wire stripping length of the cable</b>	
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts</li> </ul>	10 mm

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

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

#### Certificates/approvals

General Product Approval			Declaration of Conformity	Test Certificates
				
CCC	CSA	UL		EG-Konf.

[Type Test Certificates/Test Report](#)

#### other

[Confirmation](#)

#### Further information

**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=3RQ2000-2AW00>

**Cax online generator**

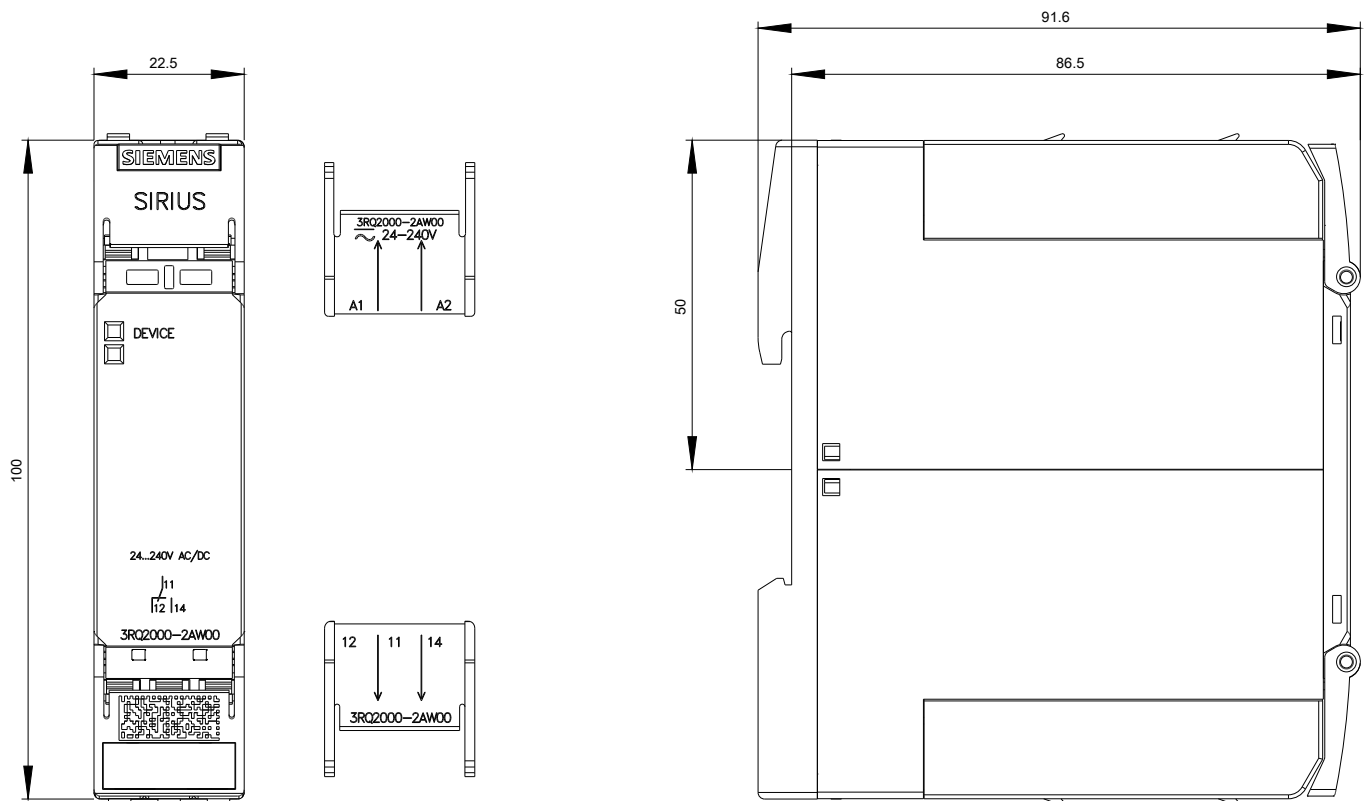
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ2000-2AW00>

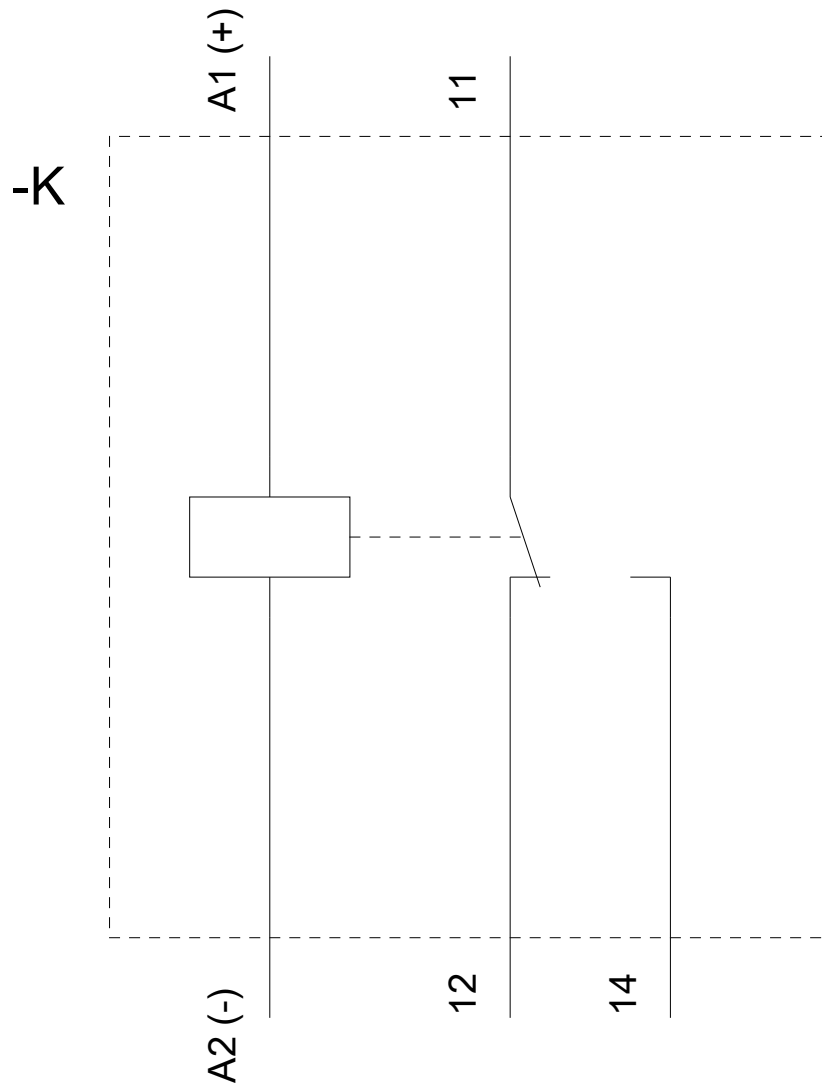
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-2AW00>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RQ2000-2AW00&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ2000-2AW00&lang=en)





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