



Coupling relay in industrial enclosure 1 changeover contact 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 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 according to IEC 60947-1	300 V
<b>protection class IP</b>	IP20
<b>shock resistance</b>	
• according to IEC 60068-2-27	11g / 15 ms
• for railway applications according to EN 61373	Category 1, Class B
<b>vibration resistance</b>	
• according to IEC 60068-2-6	10 ... 55 Hz: 0.35 mm
• for railway applications according to 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 according to IEC 81346-2</b>	K
<b>Substance Prohibitance (Date)</b>	05/31/2018
<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
<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

<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>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>	AgSnO2
<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	1
<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>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 according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	corresponds to degree of severity 3
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV (line to ground)
<ul style="list-style-type: none"> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV (line to line)
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according 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>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	spring-loaded terminal (push-in)
<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
<b>connectable conductor cross-section</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>	2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded without core end processing</li> </ul>	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> </ul>	12 ... 20
<ul style="list-style-type: none"> <li>• stranded</li> </ul>	12 ... 20
stripped length of the cable for auxiliary and control contacts	10 mm

Installation/ mounting/ dimensions	
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

Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-40 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
relative humidity during operation	10 ... 95 %

Certificates/ approvals	
General Product Approval	EMC



[Confirmation](#)



Declaration of Conformity	Test Certificates	Marine / Shipping
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EG-Konf.

[Type Test Certificates/Test Report](#)



LRS



RINA



RMRS

Marine / Shipping	other	Railway
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[Confirmation](#)

[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=3RQ2000-2AW00>

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)

Characteristic: Derating

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

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1/26/2022