

Siemens  
EcoTech



output optocoupler, 24 V DC, 1 NO contact, spring-loaded terminal (push-in), width 6.2 mm, thermal current 3 A



product brand name	SIRIUS
product category	SIRIUS 3RQ4 coupling relay, narrow design
product designation	Coupling relay with integrated semiconductor output
design of the product	output coupling link
product type designation	3RQ4
<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
power loss [W] maximum	0.2 W
consumed active power	0.3 W
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	100 V
surge voltage resistance rated value	3 kV
maximum permissible voltage for protective separation	
• between control and auxiliary circuit	100 V
• between control and auxiliary circuit according to IEC 60947-1	50 V
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
vibration resistance	
• according to IEC 60068-2-6	6 ... 150 Hz: 2 g
switching behavior	monostable
switching frequency	50 Hz
thermal current	3 A
short-time withstand current (I <sub>cw</sub> ) limited to 10 ms	8 A
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	09/26/2024
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Net Weight	0.03 kg
<b>Control circuit/ Control</b>	
control supply voltage at DC rated value	11 ... 30 V

<b>operating range factor control supply voltage rated value at DC</b>	
• initial value	0.7
• full-scale value	1
<b>design of the surge suppressor at input</b>	Varistor
<b>design of the surge suppressor at output</b>	Varistor
<b>inrush current maximum</b>	3 A
<b>minimum switching voltage when switching on</b>	11 V
<b>maximum switching voltage when switching off</b>	5 V
<b>ON-delay time</b>	
• at DC maximum	2 ms
<b>OFF-delay time maximum</b>	2 ms
<b>leakage current of the electronics for control with signal &lt;0&gt;</b>	0.01 mA
<b>Switching Function</b>	
<b>design of the switching function positively driven</b>	No
<b>Digital Outputs</b>	
<b>property of the output short-circuit proof</b>	No
<b>Mechanical data</b>	
<b>product component plug-in socket</b>	No
<b>design of the relay operating mechanism</b>	Non-polarized
<b>Short-circuit protection</b>	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
<b>Auxiliary circuit</b>	
<b>type of switching contact</b>	double contact
<b>material of contact coating</b>	other
<b>material of switching contacts</b>	Silver tin oxide (AgSnO <sub>2</sub> )
<b>material of the contact insert</b>	Thermoplastic
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	1
<b>number of CO contacts for auxiliary contacts</b>	0
<b>Main circuit</b>	
<b>type of voltage</b>	DC
<b>Inputs/ Outputs</b>	
<b>switching current of semiconductor outputs</b>	3 A
<b>type of voltage of the output voltage</b>	DC
<b>voltage drop when switched-through maximum</b>	90 mV
<b>switching voltage of the semiconductor output at DC</b>	10 ... 60 V
<b>ampacity of the semiconductor output at DC</b>	1 mA ... 3 A
<b>Electromagnetic compatibility</b>	
<b>electromagnetic compatibility</b>	acc. to EN 60947-5-1
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>	
• 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
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge
<b>Display</b>	
display version as status display by LED	LED green
<b>Connections/ Terminals</b>	
<b>product function removable terminal</b>	No
<b>type of electrical connection</b>	spring-loaded terminals
• for auxiliary and control circuit	spring-loaded terminals
<b>type of connection technology</b>	2-wire technology
<b>type of connectable conductor cross-sections</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> <li>• for AWG cables solid</li> <li>• for AWG cables stranded</li> </ul>	<p>1x (0.25 ... 2.5 mm<sup>2</sup>)</p> <p>1x (0.25 ... 1.5 mm<sup>2</sup>)</p> <p>1x (0.25 ... 2.5 mm<sup>2</sup>)</p> <p>1x (20 ... 14)</p> <p>1x (20 ... 14)</p>
<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>	<p>0.25 ... 2.5 mm<sup>2</sup></p> <p>0.25 ... 1.5 mm<sup>2</sup></p> <p>0.25 ... 2.5 mm<sup>2</sup></p>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	<p>20 ... 14</p> <p>20 ... 14</p>
<b>size of the screwdriver tip</b>	PZ1
<b>stripped length</b>	10 mm
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	snap-on mounting
<b>height</b>	93 mm
<b>width</b>	6.2 mm
<b>depth</b>	84.5 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	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>	<p>-25 ... +60 °C</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p>
relative humidity during operation	10 ... 95 %
<b>Approvals Certificates</b>	
<b>General Product Approval</b>	other



[Confirmation](#)

**Environment**



#### Further information

##### Information on the packaging

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

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

##### 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=3RQ4050-2SM50>

##### Cax online generator

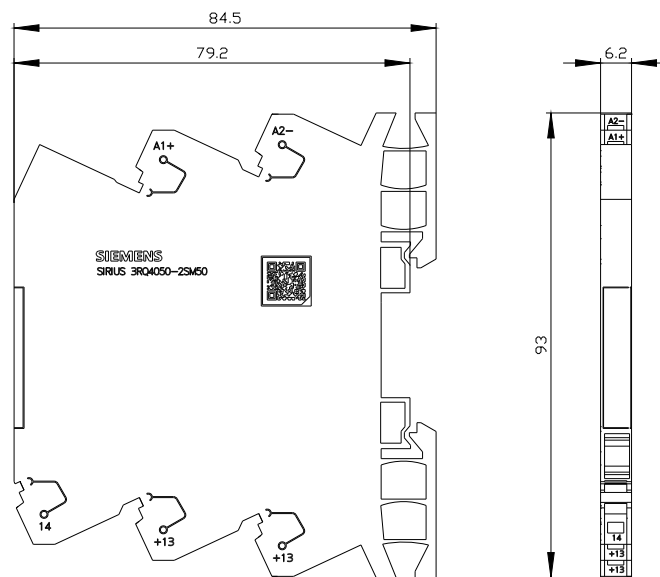
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ4050-2SM50>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ4050-2SM50>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RQ4050-2SM50&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ4050-2SM50&lang=en)



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