

## Data sheet

## 3RQ3050-2SM50



!!! phased-out product !!! the preferred successor is 3RQ4050-2SM50 output coupler optocoupler 1 NO, transistor, 24 V DC output max. 60 V DC, 0.5 A spring-loaded terminal (push-in) width 6.2 mm thermal current 0.5 A

product brand name	SIRIUS
product category	SIRIUS 3RQ3 coupling relays in slim design
product designation	Coupling relays with semiconductor output (not plug-in)
design of the product	Output coupling link
product type designation	3RQ3
<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
consumed active power	0.3 W
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	50 V
surge voltage resistance rated value	2.5 kV
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 frequency	50 Hz
thermal current	0.5 A
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	03/25/2015
Net Weight	0.028 kg
<b>Control circuit/ Control</b>	
control supply voltage at DC rated value	11 ... 30 V
operating range factor control supply voltage rated value at DC	
• initial value	1
• full-scale value	1
minimum switching voltage when switching on	11 V
maximum switching voltage when switching off	5 V
ON-delay time	
• at DC maximum	0.3 ms
OFF-delay time maximum	2 ms
<b>Mechanical data</b>	
product component plug-in socket	No
<b>Auxiliary circuit</b>	

<b>type of switching contact</b>	NO contact
<b>number of NO contacts for auxiliary contacts</b>	1
<b>Main circuit</b>	
<b>type of voltage</b>	DC
<b>Inputs/ Outputs</b>	
<b>property of the output short-circuit proof</b>	No
<b>switching voltage of the semiconductor output at DC</b>	10 ... 60 V
<b>ampacity of the semiconductor output at DC</b>	1 mA ... 0.5 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>	
• 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>	
• for auxiliary and control circuit	spring-loaded terminals (push-in)
<b>wire length</b>	
• at DC maximum	1 000 m
<b>type of connectable conductor cross-sections</b>	
• solid	1x (0.25 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing	1x (0.25 ... 1.5 mm <sup>2</sup> )
• finely stranded without core end processing	1x (0.25 ... 2.5 mm <sup>2</sup> )
• for AWG cables solid	1x (20 ... 14)
• for AWG cables stranded	1x (20 ... 14)
<b>connectable conductor cross-section</b>	
• solid	0.25 ... 2.5 mm <sup>2</sup>
• finely stranded with core end processing	0.25 ... 1.5 mm <sup>2</sup>
• finely stranded without core end processing	0.25 ... 2.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
• solid	20 ... 14
• stranded	20 ... 14
<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>	72.5 mm
<b>required spacing</b>	
• with side-by-side mounting	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm

• for live parts	0 mm
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm

#### Ambient conditions

installation altitude at height above sea level maximum	2 000 m
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#### ambient temperature

• during operation	-25 ... +60 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C

relative humidity during operation	10 ... 95 %
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#### Approvals Certificates

Environment	General Product Approval
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[Environmental Confirmations](#)



EMV	Test Certificates	Maritime application	other
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[Type Test Certificates/Test Report](#)



[Confirmation](#)

#### 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=3RQ3050-2SM50>

##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3050-2SM50>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ3050-2SM50>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RQ3050-2SM50&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3050-2SM50&lang=en)



