

Output coupler Relay coupler, 1 change-over contact hard gold-plated contacts 24 V AC/DC Overall width 6.2 mm screw terminal Thermal current 6A



Product brand name	SIRIUS
Product category	SIRIUS 3RQ3 coupling relays in slim design
Product designation	Coupling relays with relay output (not plug-in)
Design of the product	Output coupling link
Product type designation	3RQ3

General technical data	
Display version LED	Yes
Product component	
• Relay output	Yes
• semi-conductor output	No
Consumed active power	0.3 W
Insulation voltage	
• for overvoltage category III according to IEC 60664	
— with degree of pollution 3 rated value	300 V
Surge voltage resistance rated value	4 kV
maximum permissible voltage for safe isolation	
• between control and auxiliary circuit	300 V

<b>Percental drop-out voltage related to the input voltage</b>	10 %
<b>Protection class IP</b>	IP20
<b>Shock resistance</b> • acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
<b>Vibration resistance</b> • acc. to IEC 60068-2-6	6 ... 150 Hz: 2 g
<b>Operating frequency maximum</b>	72 000 1/h
<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</b>	6 A
<b>Reference code acc. to DIN EN 81346-2</b>	K

Control circuit/ Control	
<b>Control supply voltage at AC</b> • at 50 Hz rated value • at 60 Hz rated value	24 V 24 V
<b>Control supply voltage frequency</b> • 1 rated value • 2 rated value	50 Hz 60 Hz
<b>Control supply voltage at DC</b> • rated value	24 V
<b>Operating range factor control supply voltage rated value at DC</b> • initial value • Full-scale value	0.8 1.25
<b>Operating range factor control supply voltage rated value at AC at 50 Hz</b> • initial value • Full-scale value	0.8 1.25
<b>Operating range factor control supply voltage rated value at AC at 60 Hz</b> • initial value • Full-scale value	0.8 1.25
<b>Switch-on delay time</b> • at AC maximum • at DC maximum	12 ms 12 ms
<b>Off-delay time</b>	14 ms
<b>Closing delay</b> • at AC	12 ms

<ul style="list-style-type: none"> <li>• at DC</li> </ul>	6 ms
<b>Opening delay</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	14 ms
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	13 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>	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gG: 4 A

### Auxiliary circuit

<b>Type of switching contact</b>	Changeover contact
<b>Material of switching contacts</b>	AgSnO <sub>2</sub> -HTV
<b>Number of CO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>	1
<b>Operating current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• at 250 V</li> </ul>	3 A
<b>Operating current of auxiliary contacts 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>Contact reliability of auxiliary contacts</b>	one incorrect switching operation of 100 million switching operations (5 V, 1 mA)

### Main circuit

<b>Type of voltage</b>	AC/DC
------------------------	-------

### Inputs/ Outputs

<b>Property of the output Short-circuit proof</b>	No
---	----

### Outputs

<b>Ampacity of the output relay at AC-15</b>	
<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

### Electromagnetic compatibility

<b>EMC emitted interference</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60947-1</li> </ul>	ambience A (industrial sector)
<b>EMI immunity</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60947-1</li> </ul>	corresponds to degree of severity 3

<b>Conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	1 kV
<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>	6 kV contact discharge / 8 kV air discharge

### Display

<b>Display version</b>	
<ul style="list-style-type: none"> <li>• as status display by LED</li> </ul>	LED green

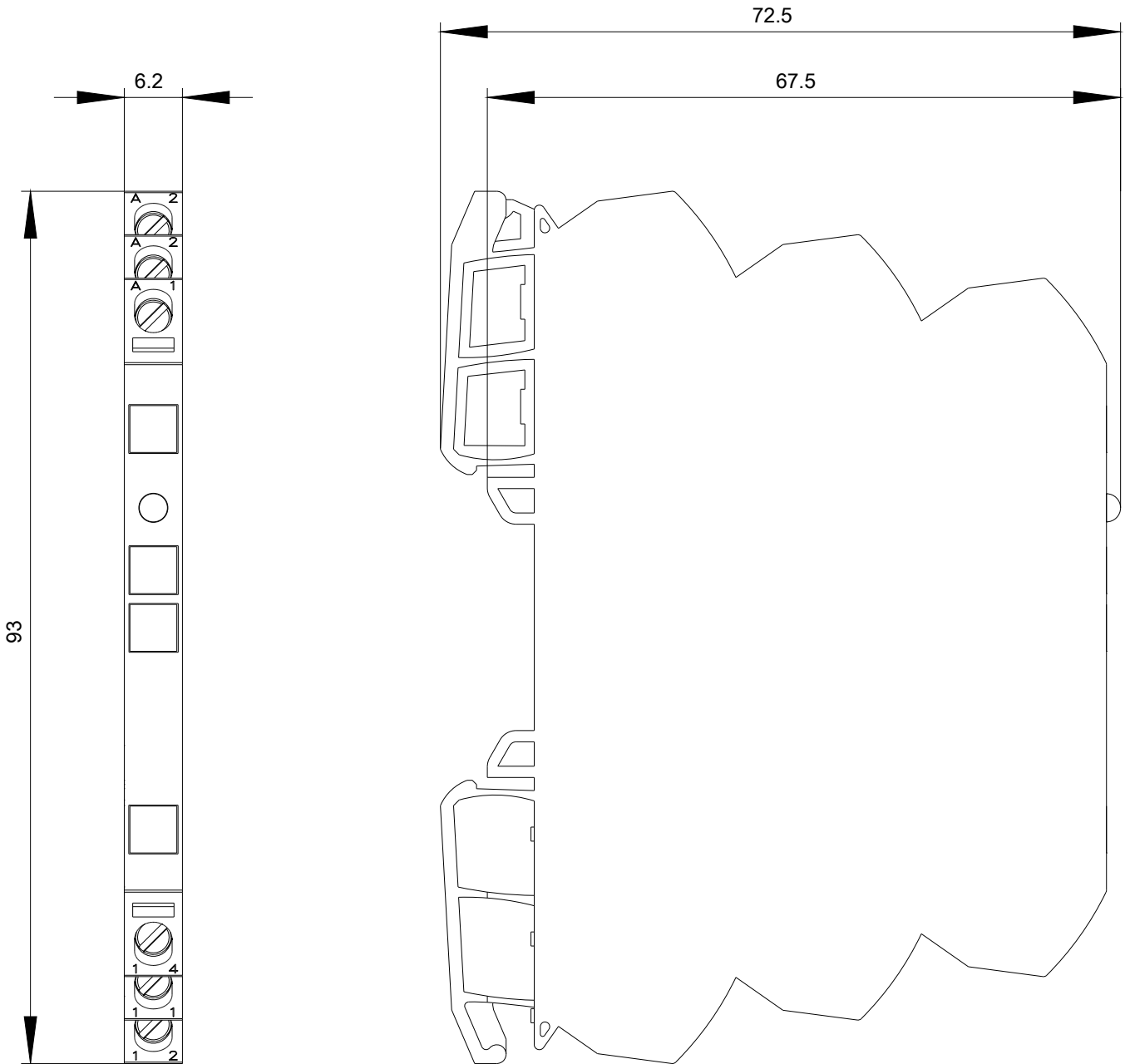
### Connections/ Terminals

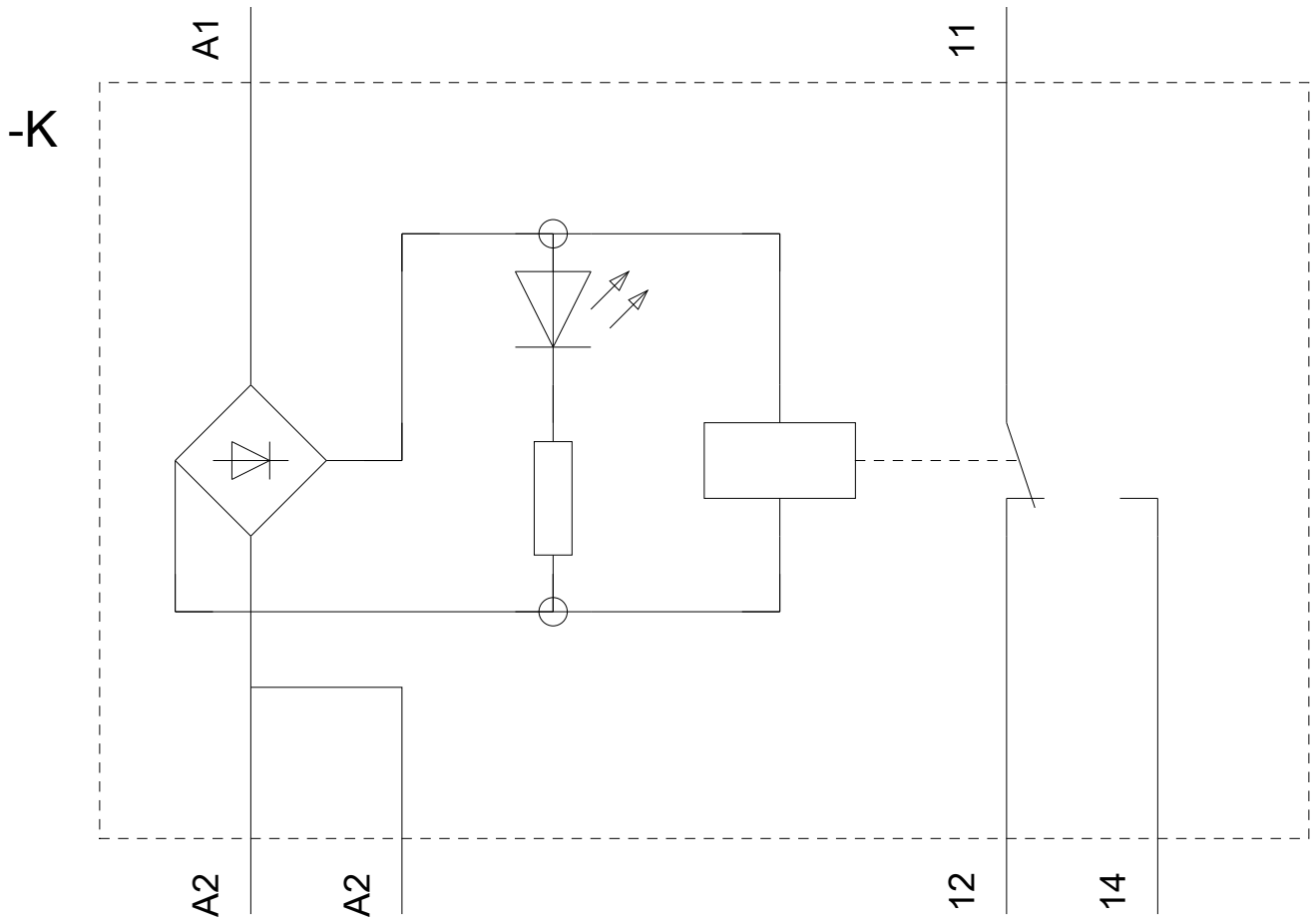
<b>Product function</b>	
<ul style="list-style-type: none"> <li>• removable terminal</li> </ul>	No
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for auxiliary and control current circuit</li> </ul>	screw-type terminals
<b>Wire length</b>	
<ul style="list-style-type: none"> <li>• at AC maximum</li> </ul>	500 m
<ul style="list-style-type: none"> <li>• at DC maximum</li> </ul>	1 000 m
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	1x (0.25 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>	1x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• at AWG conductors solid</li> </ul>	1 x (20 ... 14)
<b>Connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	0.25 ... 2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>	0.25 ... 1.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	20 ... 14
<b>Tightening torque</b>	
<ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	0.5 ... 0.6 N·m

### Installation/ mounting/ dimensions

<b>Mounting position</b>	any
<b>Mounting type</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>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> </ul> </li> </ul>	0 mm 0 mm







last modified:

04/02/2020