



Current monitoring relay for IO-Link, can be mounted to Contactor, 3RT2, Size S0  
 Apparent/active current monitoring 4-40 A, 20-400 Hz, 3-phase Supply voltage 24 V DC 1 change-over contact Monitoring for Current overshoot and undershoot  
 Current asymmetry Phase failure, Cable break Phase sequence, Residual current  
 Blocking current, Switching cycle and Operating hours counter Warning and alarm  
 thresholds Auto-reset or manual reset ON delay 0-9999.9 s OFF delay 0-9999.9 s  
 Reclosing delay 0-300 min spring-type connection system

product brand name	SIRIUS
product designation	Monitoring relays
design of the product	digitally adjustable, 3-phase current monitoring, IO-Link
product type designation	3RR2
<b>General technical data</b>	
size of contactor can be combined company-specific	S0
operating apparent power rated value	2.5 VA
insulation voltage for overvoltage category III according to IEC 60664	
• with degree of pollution 3 rated value	690 V
surge voltage resistance rated value	6 kV
consumed current at 24 V	90 mA
protection class IP	
• on the front	IP20
• of the terminal	IP20
shock resistance	15g / 11 ms
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
reference code according to IEC 81346-2	K
relative repeat accuracy	2 %
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Blei - 7439-92-1 Bleimonoxyd (Bleioxyd) - 1317-36-8 2-Methyl-1-(4-methylthiophenyl)-2-morpho - 71868-10-5
<b>Supply voltage</b>	
type of voltage of the supply voltage	DC
supply voltage 1 at DC rated value	24 V
relative negative tolerance of the supply voltage	25 %
relative positive tolerance of the supply voltage	25 %
<b>Measuring circuit</b>	
type of current for monitoring	AC
adjustable current response value current	
• 1	4 ... 40 A
• 2	4 ... 40 A
adjustable response delay time	
• when starting	0 ... 999.9 s
• with lower or upper limit violation	0 ... 999.9 s
adjustable switching hysteresis for measured current value	0.1 ... 8 A
accuracy of digital display	+/-1 digit
<b>Precision</b>	

temperature drift per °C	0.1 %/°C
<b>Short-circuit protection</b>	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
<b>Communication/ Protocol</b>	
protocol is supported IO-Link protocol	Yes
<b>IO-Link transfer rate</b>	COM2 (38,4 kBaud)
<b>point-to-point cycle time between master and IO-Link device minimum</b>	10 ms
<b>type of voltage supply via input/output link master</b>	Yes
<b>data volume</b>	
<ul style="list-style-type: none"> <li>of the address range of the inputs with cyclical transfer total</li> </ul>	4 byte
<ul style="list-style-type: none"> <li>of the address range of the outputs with cyclical transfer total</li> </ul>	2 byte
<b>Auxiliary circuit</b>	
<b>number of CO contacts</b>	
<ul style="list-style-type: none"> <li>for auxiliary contacts</li> </ul>	1
<b>operational 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 230 V</li> </ul>	3 A
<b>operational 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 rating of auxiliary contacts according to UL</b>	B300 / R300
<b>Main circuit</b>	
operating power rated value	2.5 W
<b>ampacity of the semiconductor output in SIO mode</b>	200 mA
<b>operational current at 17 V minimum</b>	5 mA
<b>Electromagnetic compatibility</b>	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	ambience A (industrial sector)
<b>Connections/ Terminals</b>	
<b>product component removable terminal for main circuit</b>	No
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	
<ul style="list-style-type: none"> <li>for main current circuit</li> </ul>	spring-loaded terminals
<ul style="list-style-type: none"> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals
<b>type of connectable conductor cross-sections for main contacts</b>	
<ul style="list-style-type: none"> <li>solid</li> </ul>	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>finely stranded without core end processing</li> </ul>	1x (1 ... 6 mm <sup>2</sup> )
<b>connectable conductor cross-section for main contacts</b>	
<ul style="list-style-type: none"> <li>solid or stranded</li> </ul>	1 ... 10 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>	1 ... 6 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>finely stranded without core end processing</li> </ul>	1 ... 6 mm <sup>2</sup>
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> </ul> </li> </ul>	1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>— finely stranded with core end processing</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>— finely stranded without core end processing</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (24 ... 16)
AWG number as coded connectable conductor cross section for main contacts	18 ... 8
tightening torque with screw-type terminals	0.8 ... 1.2 N·m
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	direct mounting
<b>height</b>	109 mm
<b>width</b>	45 mm

depth	92 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 0 mm</li> <li>— backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 6 mm</li> <li>— backwards 0 mm</li> <li>— upwards 6 mm</li> <li>— at the side 6 mm</li> <li>— downwards 6 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 6 mm</li> <li>— backwards 0 mm</li> <li>— upwards 6 mm</li> <li>— downwards 6 mm</li> <li>— at the side 6 mm</li> </ul> </li> </ul>	

#### Ambient conditions

installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation -25 ... +60 °C</li> <li>• during storage -40 ... +80 °C</li> </ul>	

#### Approvals Certificates

General Product Approval	EMC
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[Confirmation](#)



[Manufacturer Declaration](#)



#### Declaration of Conformity

#### Test Certificates

#### Marine / Shipping



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



#### Marine / Shipping

#### other



[Confirmation](#)

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

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=3RR2442-2AA40>

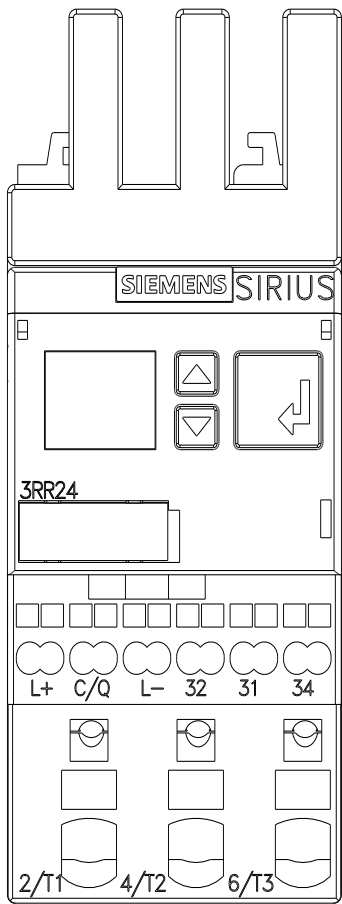
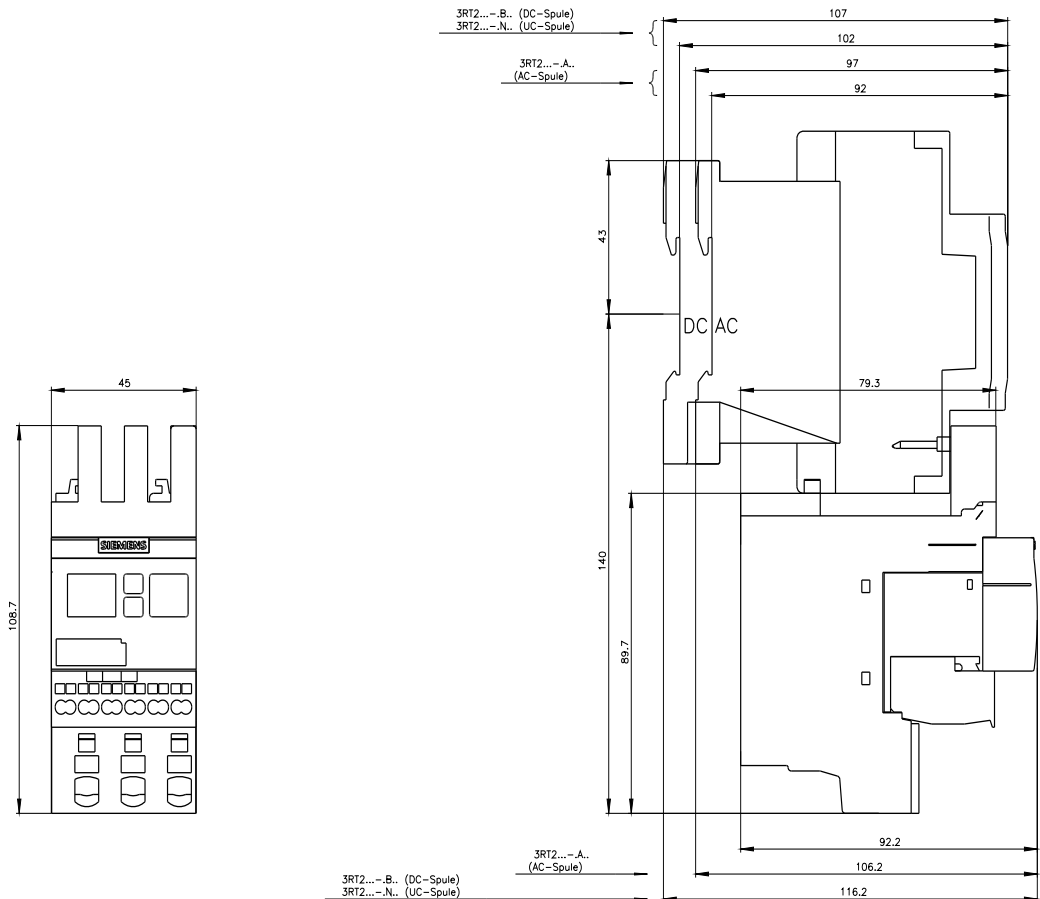
Cax online generator

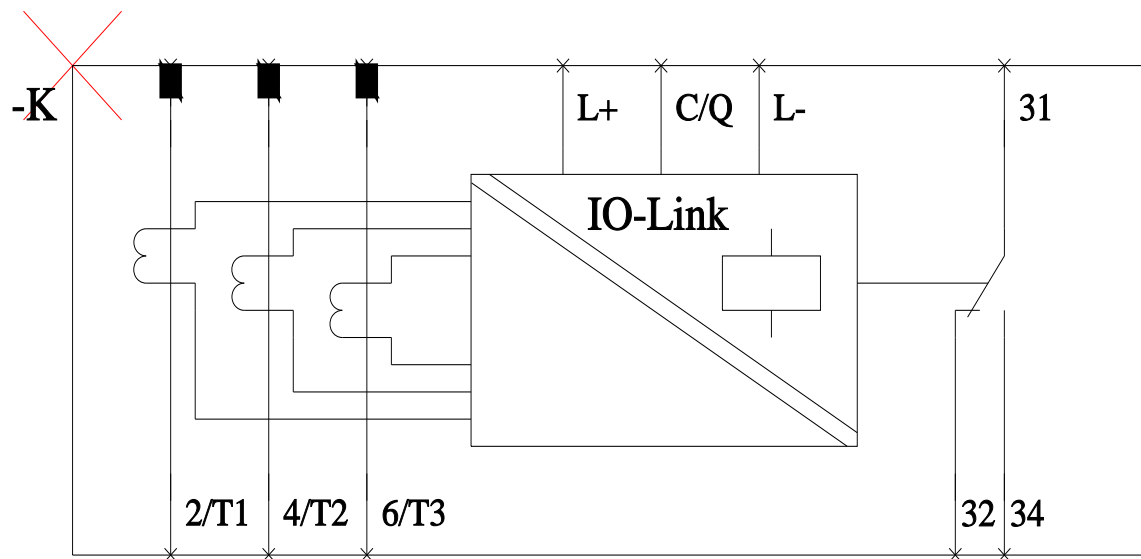
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2442-2AA40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2442-2AA40>

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





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