



Current monitoring relay for IO-Link, can be mounted to Contactor, 3RT2, Size S2
Apparant/active current monitoring 8-80 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
General technical data	
size of contactor can be combined company-specific	S2
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
• at 240 V	12 mA
protection class IP	
• on the front	IP20
• of the terminal	IP00
shock resistance	10g / 11 ms
vibration resistance	10 ... 55 Hz / 0.35 mm
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	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	242 g
Supply voltage	
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 %
Measuring circuit	
type of current for monitoring	AC
adjustable current response value current	
• 1	8 ... 80 A
• 2	8 ... 80 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	0.2 ... 16 A
accuracy of digital display	+/-1 digit
Precision	
temperature drift per °C	0.1 %/°C
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
Communication/ Protocol	
protocol is supported IO-Link protocol	Yes
IO-Link transfer rate	COM2 (38,4 kBaud)
point-to-point cycle time between master and IO-Link device minimum	10 ms
type of voltage supply via input/output link master	Yes
data volume	
• of the address range of the inputs with cyclical transfer total	4 byte
• of the address range of the outputs with cyclical transfer total	2 byte
Auxiliary circuit	
number of CO contacts	
• for auxiliary contacts	1
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 230 V	3 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
contact rating of auxiliary contacts according to UL	B300 / R300
Main circuit	
operating power rated value	2.5 W
ampacity of the semiconductor output in SIO mode	200 mA
operational current at 17 V minimum	5 mA
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	ambience A (industrial sector)
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
Connections/ Terminals	
product component removable terminal for main circuit	No
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	spring-loaded terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (1 ... 35 mm²), 1x (1 ... 50 mm²)
• stranded	2x (1 ... 35 mm²), 1x (1 ... 50 mm²)
• finely stranded with core end processing	2x (1 ... 25 mm²), 1x (1 ... 35 mm²)
connectable conductor cross-section for main contacts	
• solid or stranded	1 ... 50 mm²
• finely stranded with core end processing	1 ... 35 mm²
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
— finely stranded with core end processing	2x (0.25 ... 1.5 mm²)
— finely stranded without core end processing	2x (0.25 ... 1.5 mm²)
• for AWG cables for auxiliary contacts	2x (24 ... 16)
AWG number as coded connectable conductor cross section for main contacts	18 ... 1
tightening torque with screw-type terminals	0.8 ... 1.2 N·m
Installation/ mounting/ dimensions	

mounting position	any
fastening method	direct mounting
height	99 mm
width	55 mm
depth	112 mm
required spacing	
• with side-by-side mounting	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	10 mm
— at the side	0 mm
• for grounded parts	
— forwards	10 mm
— backwards	0 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm

Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C

Approvals Certificates	
General Product Approval	



[Confirmation](#)

[Manufacturer Declaration](#)



General Product Approval	EMV	Test Certificates	Marine / Shipping
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[Special Test Certificate](#)



Marine / Shipping	other	Environment
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[Confirmation](#)

[Environmental Confirmations](#)

Further information

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)

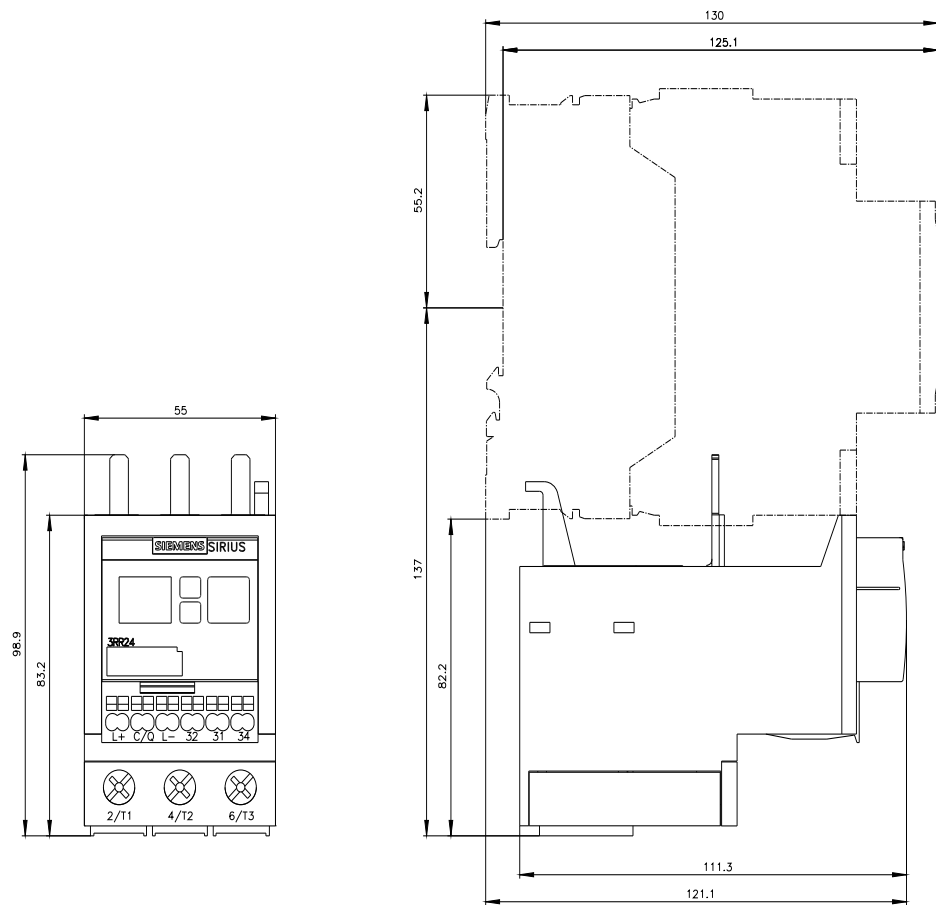
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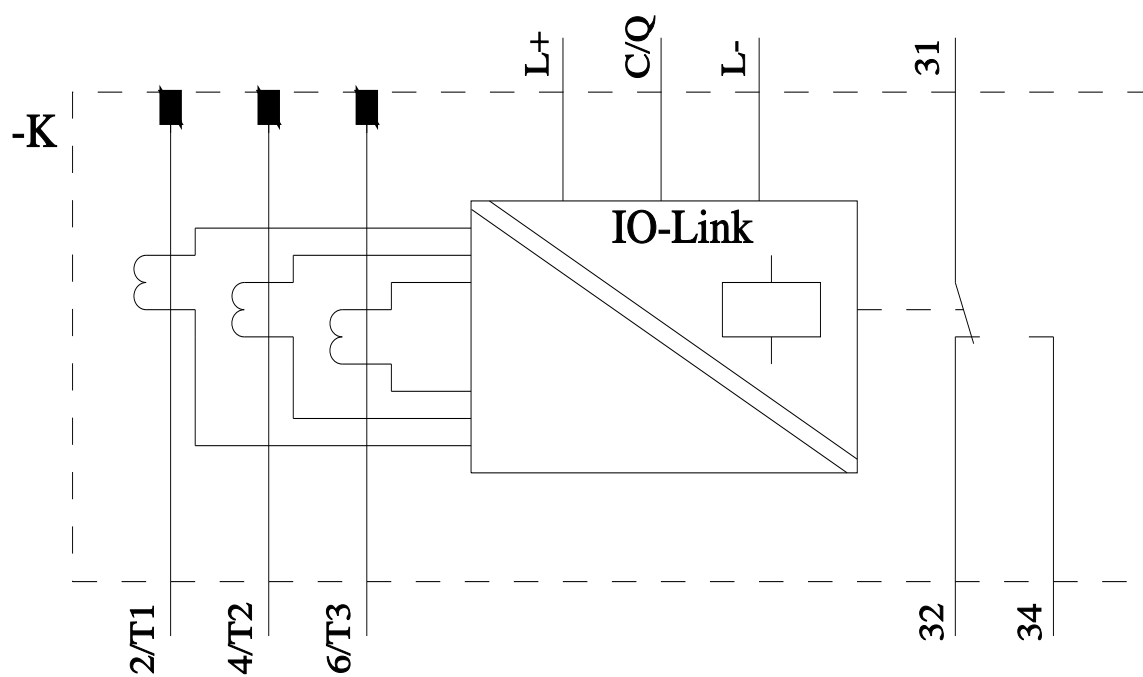
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<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2443-3AA40>

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

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last modified:

3/11/2024 

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