



DIGITAL MONITORING RELAY CURRENT MONITORING, 22.5MM FOR IO-LINK 0.05 TO 10.0A AC/DC OVER- AND UNDERCURRENT CONVERTER SCALING FACTOR HYSTERESIS 0.01 TO 5.0A ON DELAY TIME TRIPPING DELAY TIME 1 CHANGE-OVER CONTACT, SPRING-LOADED TERMINAL

Product function		Current monitoring relay
Measuring circuit:		
Number of poles for main current circuit		1
Type of current for monitoring		AC/DC
Measurable current	A	0.05 ... 10
Measurable current with AC	mA	50 ... 750 000
Measurable line frequency	Hz	500 ... 40
Adjustable response value current		
• 1	A	0.05 ... 10
• 2	A	0.05 ... 10
Adjustable response delay time		
• when starting	s	0 ... 999.9
• with lower or upper limit violation	s	0 ... 999.9
Adjustable switching hysteresis for measured current value	mA	5 ... 10
Operating voltage Rated value	V	24 ... 24
Response time maximum	ms	450
Relative metering precision	%	5
Accuracy of digital display		+/-1 digit
Relative temperature-related measurement deviation	%	5
Relative repeat accuracy	%	1
General technical data:		
Design of the display		LCD
Product function		
• Overcurrent detection 1 phase		Yes

<ul style="list-style-type: none"> • Overcurrent detection 3 phase • undercurrent detection 1 phase • undercurrent detection 3 phases • Overcurrent detection DC • undercurrent detection DC • Current window recognition DC • External reset • Auto-reset • Adjustable open/closed-circuit current principle 		<p>No</p> <p>Yes</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Startup time after the control supply voltage has been applied	ms	1 000
Type of voltage of the supply voltage		DC
Supply voltage		
<ul style="list-style-type: none"> • 1 <ul style="list-style-type: none"> — for DC Rated value — for DC 	V	24
	V	18 ... 30
Surge voltage resistance Rated value	kV	6
Active power consumption	W	2
Protection class IP		IP20
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Vibration resistance acc. to IEC 60068-2-6		1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
Shock resistance acc. to IEC 60068-2-27		sinusoidal half-wave 15g / 11 ms
Installation altitude at height above sea level maximum	m	2 000
Conducted interference due to burst acc. to IEC 61000-4-4		2 kV
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		2 kV
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		1 kV
Electrostatic discharge acc. to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling acc. to IEC 61000-4-3		10 V/m
maximum permissible voltage for safe isolation		
<ul style="list-style-type: none"> • between control and auxiliary circuit 	V	690
Degree of pollution		2
Ambient temperature		
<ul style="list-style-type: none"> • during operation • during storage • during transport 	°C	-25 ... +60
	°C	-40 ... +85
	°C	-40 ... +85
Galvanic isolation		
<ul style="list-style-type: none"> • between entrance and outlet • between the voltage supply and other circuits 		<p>Yes</p> <p>Yes</p>

Communication/ Protocol:

Type of voltage supply via input/output link master		Yes
IO-Link transfer rate		COM2 (38,4 kBaud)
Protocol is supported IO-Link protocol		Yes
Amount of data		
• of the address area of the outputs with cyclical transfer total	byte	2
• of the address area of the inputs with cyclical transfer total	byte	4
Point-to-point cycle time between master and IO-Link device minimum	ms	10

Mechanical data:

Width	mm	22.5
Height	mm	94
Depth	mm	91
mounting position		any
Required spacing for grounded parts		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
Required spacing with side-by-side mounting		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
Required spacing for live parts		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
Mounting type		snap-on mounting
Type of electrical connection		
• for auxiliary and control current circuit		spring-loaded terminals
• for main current circuit		spring-loaded terminals
Product function		
• removable terminal for auxiliary and control circuit		Yes
• removable terminal for main circuit		Yes
Type of connectable conductor cross-section		

• solid	2x (0.25 ... 1.5 mm ²)
• finely stranded	2 x (0.25 ... 1.5 mm ²)
— with core end processing	2x (0.25 ... 1.5 mm ²)
— without core end processing	2x (0.25 ... 1.5 mm ²)
• for AWG conductors	
— solid	2x (24 ... 16)
— stranded	2x (24 ... 16)

Outputs:

Number of NO contacts delayed switching		0
Number of NC contacts delayed switching		0
Number of CO contacts delayed switching		1
Ampacity		
• of the output relay		
— at AC-15		
— at 250 V at 50/60 Hz	A	3
— at 400 V at 50/60 Hz	A	3
— at DC-13		
— at 24 V	A	1
— at 125 V	A	0.2
— at 250 V	A	0.1
• for permanent overcurrent maximum permissible	A	15
Operating current at 17 V minimum	A	0.01
Continuous current of the DIAZED fuse link of the output relay	A	4
Thermal current of the switching element with contacts maximum	A	5
Mechanical service life (switching cycles) typical		10 000 002
Electrical endurance (switching cycles) at AC-15 at 230 V typical		100 000
Operating frequency with 3RT2 contactor maximum	1/h	5 000

Certificates/ approvals:

General Product Approval



CCC

[Manufacturer
declaration](#)



UL

Test Certificates

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[Declaration of
Conformity](#)

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Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

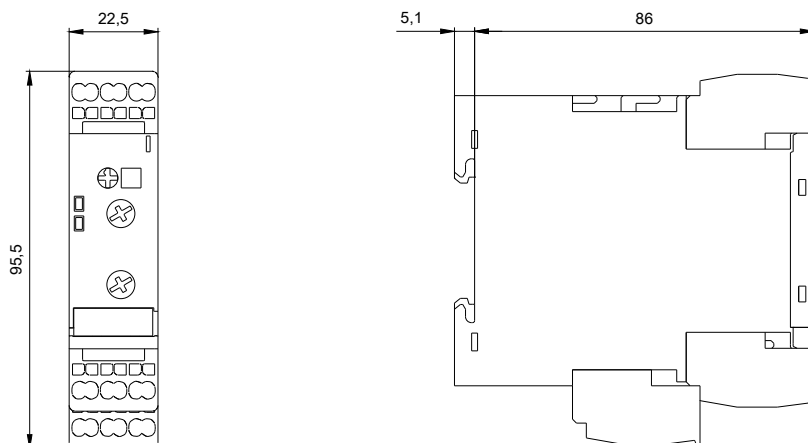
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UG48222AA40>

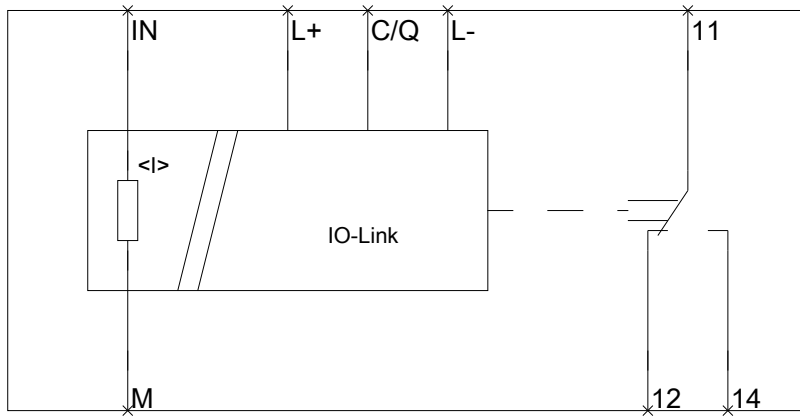
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UG48222AA40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UG48222AA40&lang=en





last modified:

15.01.2015