



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 at AC | mA | 50 ... 750 000 |
| Measurable line frequency | Hz | 500 ... 40 |
| Adjustable pick-up 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 |
| • Overcurrent detection 3 phase | | No |
| • undercurrent detection 1 phase | | Yes |
| • undercurrent detection 3 phases | | No |
| • Overcurrent detection DC | | Yes |
| • undercurrent detection DC | | Yes |
| • Current window recognition DC | | Yes |
| • External reset | | Yes |
| • Auto-reset | | Yes |
| • Adjustable open/closed-circuit current principle | | Yes |
| Starting time after the control supply voltage has been applied | ms | 1 000 |
| Type of voltage of the supply voltage | | DC |
| Supply voltage | | |
| • 1 | | |
| — at DC rated value | V | 24 |
| — at DC | V | 18 ... 30 |
| Surge voltage resistance rated value | kV | 6 |
| Consumed active power | 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 | | |
| • between control and auxiliary circuit | V | 690 |
| Degree of pollution | | 2 |
| Ambient temperature | | |
| • during operation | °C | -25 ... +60 |

| | | |
|---|----|-------------|
| • during storage | °C | -40 ... +85 |
| • during transport | °C | -40 ... +85 |
| Galvanic isolation | | |
| • between entrance and outlet | | Yes |
| • between the voltage supply and other circuits | | Yes |

| | | |
|--|------|-------------------|
| 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 |

| | | |
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| 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-sections | | |
| • 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) |
| • at 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 | | | | Declaration of Conformity | Test Certificates |
|--|--|---|---|---|--|
|  CCC | Manufacturer Declaration |  UL |  |  EG-Konf. | Type Test Certificates/Test Report |

| Test Certificates | other | Railway |
|--|------------------------------|-------------------------------------|
| Special Test Certificate | Confirmation | Vibration and Shock |

Further information

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

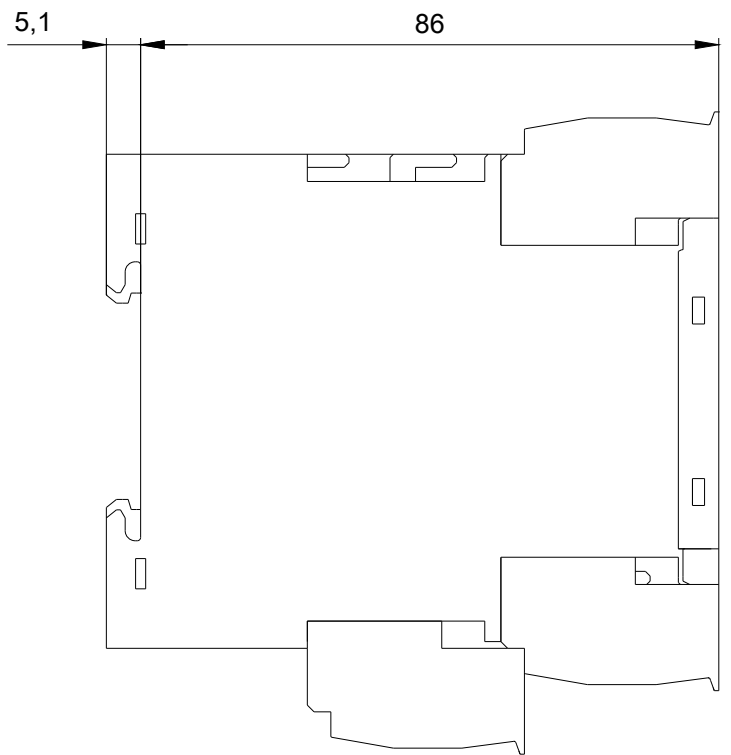
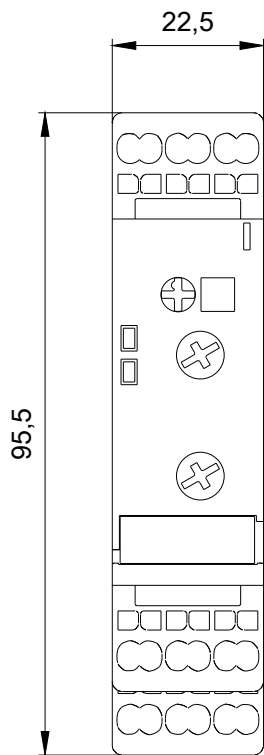
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4822-2AA40>

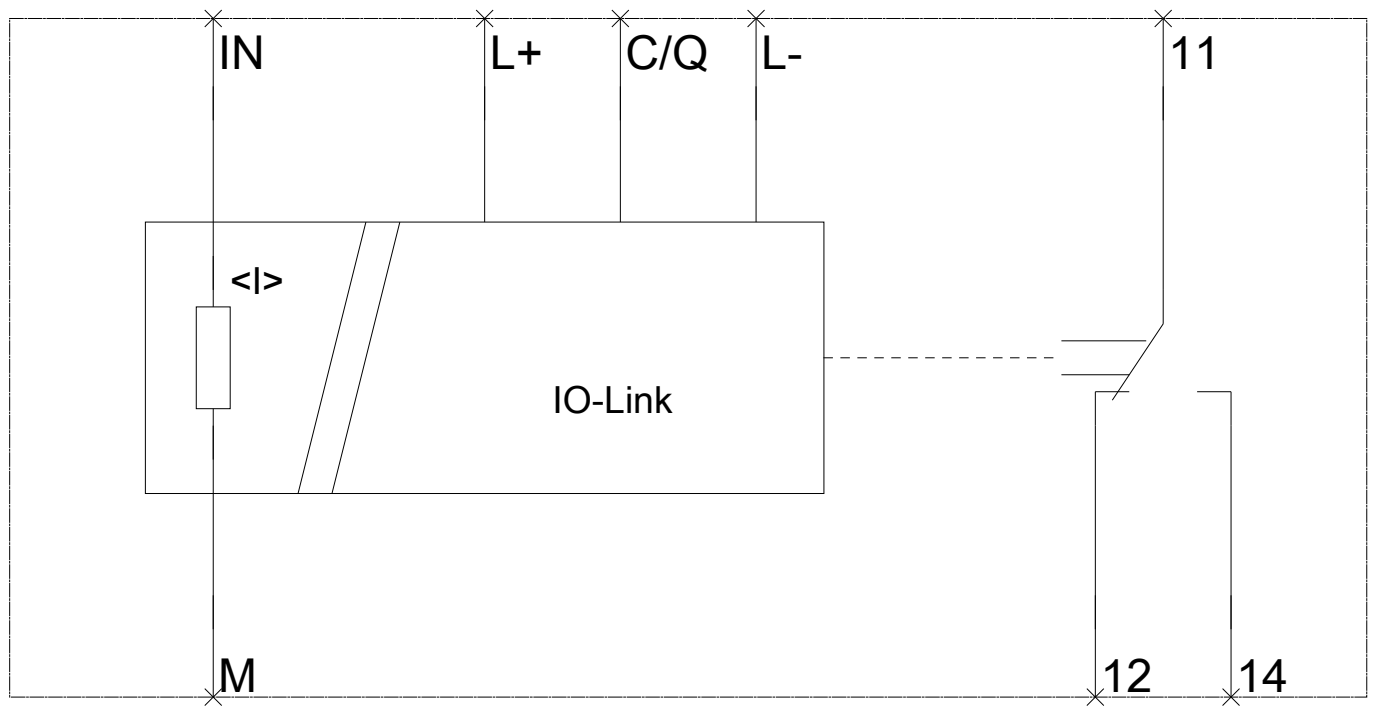
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4822-2AA40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4822-2AA40&lang=en





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