SIEMENS

Data sheet 3UG4822-2AA40



Digital monitoring relay Current monitoring, 22.5 mm for IO-Link 0.05...10.0 A AC/DC Overcurrent and undercurrent Transformer scaling factor Hysteresis 0.01 to 5.0 A ON-delay time Tripping delay time 1 change-over contact, spring-type connection system

product brand name	SIRIUS
product designation	Current monitoring relay with digital setting
product type designation	3UG4
General technical data	
product function	Current monitoring relay
design of the display	LCD
insulation voltage for overvoltage category III according to IEC 60664	
 with degree of pollution 2 rated value 	690 V
degree of pollution	2
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
between control and auxiliary circuit	690 V
protection class IP	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance according to IEC 60068-2-6	1 6 Hz: 15 mm, 6 500 Hz: 2g
mechanical service life (operating cycles) typical	10 000 002
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
thermal current of the switching element with contacts maximum	5 A
reference code according to IEC 81346-2	K
relative repeat accuracy	1 %
Substance Prohibitance (Date)	05/01/2012
Product Function	
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
 voltage window recognition 1 phase 	No
 voltage window recognition 3 phase 	No
• adjustable open/closed-circuit current principle	Yes
external reset	Yes
auto-RESET	Yes
Supply voltage	
type of voltage of the supply voltage	DC
supply voltage 1 at DC	18 30 V

cumply voltage 1 at DC rated value	24 V
supply voltage 1 at DC rated value	Z4 V
Measuring circuit	AOIDO
type of current for monitoring	AC/DC
measurable current	0.05 10 A
measurable line frequency	500 40 Hz
adjustable current response value current	
• 1	0.05 10 A
• 2	0.05 10 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	5 10 mA
accuracy of digital display	+/-1 digit
relative temperature-related measurement deviation	5 %
internal resistance of the measuring circuit	5 mΩ
Precision	
relative metering precision	5 %
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	10 ms
device minimum	
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 NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts delayed switching	1
operating frequency with 3RT2 contactor maximum	5 000 1/h
Main circuit	
number of poles for main current circuit	1
operating voltage rated value	24 24 V
ampacity of the output relay at AC-15	
• at 250 V at 50/60 Hz	3 A
• at 400 V at 50/60 Hz	3 A
ampacity of the output relay at DC-13	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
ampacity of the semiconductor output in SIO mode	200 mA
operational current at 17 V minimum	0.01 A
continuous current of the DIAZED fuse link of the output relay	4 A
Electromagnetic compatibility	
conducted interference	
due to burst according to IEC 61000-4-4	2 kV
due to burst according to IEC 61000-4-4 due to conductor-earth surge according to IEC 61000-4-5	2 kV
due to conductor-earth surge according to IEC due to conductor-conductor surge according to IEC	1 kV
61000-4-5	
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Galvanic isolation	
design of the electrical isolation	Protective separation
galvanic isolation	
 between input and output 	Yes
between the voltage supply and other circuits	Yes
Connections/ Terminals	
product component removable terminal for main circuit	Yes

product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
for main current circuit	spring-loaded terminals
 for auxiliary and control circuit 	spring-loaded terminals
type of connectable conductor cross-sections	
• solid	2x (0.25 1.5 mm²)
finely stranded with core end processing	2 x (0.25 1.5 mm²)
finely stranded without core end processing	2x (0.25 1.5 mm²)
• for AWG cables solid	2x (24 16)
for AWG cables stranded	2x (24 16)
connectable conductor cross-section	ZA (Z+ 10)
solid	0.25 1.5 mm²
finely stranded with core end processing	0.25 1.5 mm²
	0.25 1.5 mm²
finely stranded without core end processing	0.25 1.5 !!!!!
AWG number as coded connectable conductor cross section	
• solid	24 16
• stranded	24 16
Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on mounting
height	94 mm
width	22.5 mm
depth	91 mm
required spacing	
with side-by-side mounting	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
for grounded parts	* ·····
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
for live parts	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
downwards at the side	0 mm
20,000	0 mm
Ambient conditions	0.000
installation altitude at height above sea level maximum	2 000 m
ambient temperature	05 +00 %0
during operation	-25 +60 °C
during storage	-40 +85 °C
during transport	-40 +85 °C
Certificates/ approvals	
General Product Approval	EMC



Manufacturer Declaration Confirmation







Declaration of Conformity Test Certificates Marine / Shipping other







Railway

Vibration and Shock

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=3UG4822-2AA40

Cax online generator

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

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

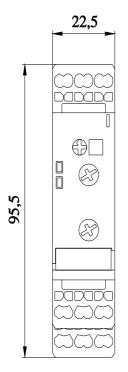
https://support.industry.siemens.com/cs/ww/en/ps/3UG4822-2AA40

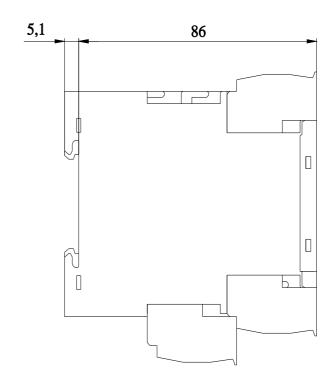
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

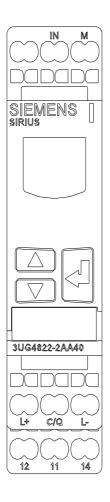
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4822-2AA40&lang=en

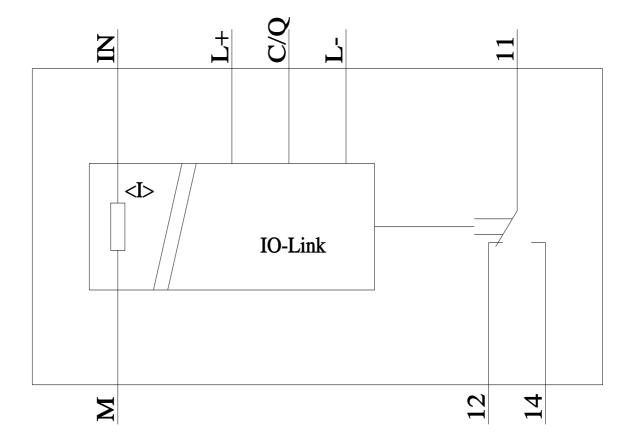
Characteristic: Derating

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









last modified: 12/21/2020 🖸