



Digital monitoring relay Current monitoring, 22.5 mm from 0.05-10 A AC/DC
 Overshoot and undershoot 24 to 240 V AC/DC 50 to 60 Hz DC and AC ON
 delay and noise pulses delay 0.1 to 20 s Hysteresis 0.01 to 5 A 1 change-
 over contact with or without fault buffer screw terminal Successor product
 for 3UG3522-1AL20, 3UG3522-1AG20 and 3UG3522-1AC48-0AA1

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 3 rated value	690 V
degree of pollution	3
surge voltage resistance rated value	4 kV
maximum permissible voltage for safe isolation	
• between auxiliary and auxiliary circuit	300 V
• between control and auxiliary circuit	300 V
protection class IP	IP20
shock resistance acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance acc. to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
mechanical service life (switching cycles) typical	10 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	100 000
thermal current of the switching element with contacts maximum	5 A
reference code acc. to IEC 81346-2	K
relative repeat accuracy	1 %
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	AC/DC
supply voltage 1 at AC	
• at 50 Hz	20.4 ... 264 V
• at 60 Hz	20.4 ... 264 V
supply voltage 1 at DC	20.4 ... 264 V
Measuring circuit	
type of current for monitoring	AC/DC
measurable current	0.05 ... 15 A
measurable line frequency	40 ... 500 Hz
adjustable current response value current	
• 1	0.05 ... 10 A
• 2	0.05 ... 10 A
adjustable response delay time	
• when starting	0.1 ... 20 s
• with lower or upper limit violation	0.1 ... 20 s
adjustable switching hysteresis for measured current value	10 ... 5 000 mA
buffering time in the event of power failure minimum	10 ms
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 %
temperature drift per °C	0.1 %/°C
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 ... 240 V
Outputs	
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
operational current at 17 V minimum	0.005 A
continuous current of the DIAZED fuse link of the output relay	4 A
Electromagnetic compatibility	
conducted interference	
• due to burst acc. to IEC 61000-4-4	2 kV
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. 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 outputs	Yes
• between the voltage supply and other circuits	Yes

Connections/ Terminals			
product function			
<ul style="list-style-type: none"> removable terminal for main circuit removable terminal for auxiliary and control circuit 	<p>Yes</p> <p>Yes</p>		
type of electrical connection			
<ul style="list-style-type: none"> for main current circuit for auxiliary and control circuit 	<p>screw-type terminals</p> <p>screw-type terminals</p>		
type of connectable conductor cross-sections			
<ul style="list-style-type: none"> solid finely stranded with core end processing at AWG cables solid at AWG cables stranded 	<p>1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)</p> <p>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)</p> <p>2x (20 ... 14)</p> <p>2x (20 ... 14)</p>		
<ul style="list-style-type: none"> connectable conductor cross-section solid connectable conductor cross-section finely stranded with core end processing 	<p>0.5 ... 4 mm²</p> <p>0.5 ... 2.5 mm²</p>		
<ul style="list-style-type: none"> AWG number as coded connectable conductor cross section solid AWG number as coded connectable conductor cross section stranded 	<p>20 ... 14</p> <p>20 ... 14</p>		
<ul style="list-style-type: none"> tightening torque with screw-type terminals 	0.8 ... 1.2 N·m		
Installation/ mounting/ dimensions			
mounting position	any		
fastening method	snap-on mounting		
height	92 mm		
width	22.5 mm		
depth	91 mm		
required spacing			
<ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> forwards backwards upwards downwards at the side for grounded parts <ul style="list-style-type: none"> forwards backwards upwards at the side downwards for live parts <ul style="list-style-type: none"> forwards backwards upwards downwards at the side 	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>		
Ambient conditions			
installation altitude at height above sea level maximum	2 000 m		
<ul style="list-style-type: none"> ambient temperature during operation ambient temperature during storage ambient temperature during transport 	<p>-25 ... +60 °C</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p>		
Certificates/ approvals			
General Product Approval	EMC	Declaration of Conformity	Test Certificates



[Miscellaneous](#)



[Special Test Certificate](#)

Test Certificates	Marine / Shipping	other	Railway
Type Test Certificates/Test Report			Confirmation Vibration and Shock

Further information

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?mfb=3UG4622-1AW30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UG4622-1AW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4622-1AW30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UG4622-1AW30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4622-1AW30/manual>

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