



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

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Current monitoring relay with digital setting
<b>product type designation</b>	3UG4
<b>General technical data</b>	
<b>product function</b>	Current monitoring relay
<b>design of the display</b>	LCD
insulation voltage for overvoltage category III according to IEC 60664	
• with degree of pollution 3 rated value	690 V
<b>degree of pollution</b>	3
<b>surge voltage resistance rated value</b>	4 kV
<b>maximum permissible voltage for safe isolation</b>	
• between auxiliary and auxiliary circuit	300 V
• between control and auxiliary circuit	300 V
<b>protection class IP</b>	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 (operating cycles) typical	10 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	100 000
<b>thermal current of the switching element with contacts maximum</b>	5 A
<b>reference code acc. to IEC 81346-2</b>	K
<b>relative repeat accuracy</b>	1 %
Substance Prohibitance (Date)	01.05.2012 00:00:00
<b>Product Function</b>	
<b>product function</b>	
• 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
<b>Supply voltage</b>	
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
<b>Measuring circuit</b>	
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
<b>Precision</b>	
relative metering precision	5 %
temperature drift per °C	0.1 %/°C
<b>Auxiliary circuit</b>	
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
<b>Main circuit</b>	
number of poles for main current circuit	1
operating voltage rated value	24 ... 240 V
<b>Outputs</b>	
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
<b>Electromagnetic compatibility</b>	
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
<b>Galvanic isolation</b>	
design of the electrical isolation	Protective separation
galvanic isolation	
• between input and output	Yes
• between the outputs	Yes

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



[Miscellaneous](#)



[Special Test Certificate](#)

Test Certificates	Marine / Shipping	other	Railway
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[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](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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