

Siemens  
EcoTech



analog monitoring relay current monitoring from 0.05 to 10 A AC/DC overshoot and undershoot supply voltage 24 ... 240 V AC/DC, 50 .. 60 Hz tripping delay 0.5-30 s 1 changeover contact spring-loaded terminal

product brand name	SIRIUS
product designation	Analog setting current monitoring relay
design of the product	monitoring of undercurrent and overcurrent, externally powered with auxiliary voltage
product type designation	3UG5
<b>General technical data</b>	
product function	Current monitoring relay
power loss [W] maximum	1.5 W
power loss [V·A] maximum	3 VA
insulation voltage for overvoltage category III according to IEC 60664	
• with degree of pollution 2 rated value	690 V
• with degree of pollution 3 rated value	690 V
degree of pollution	3
type of voltage of the operating voltage	AC/DC
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15 g / 11 ms
vibration resistance according to IEC 60068-2-6	f = 4 ... 5,81 Hz, dmax = 15 mm; f = 5,81 ... 500 Hz, Amax = 20 m/s <sup>2</sup> ; 10 cycles
mechanical service life (operating cycles) typical	10 000 000
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
Substance Prohibitance (day/month/year)	06/01/2023
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8
Net Weight	0.14 kg
<b>Product Function</b>	
product function	
• undervoltage detection	No
• overvoltage detection	No
• phase sequence recognition	No
• phase failure detection	No
• voltage monitoring	No
• current monitoring	Yes
• 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
• auto-RESET	Yes
<b>Control circuit/ Control</b>	
<b>control supply voltage at AC</b>	
• at 50 Hz rated value	24 ... 240 V
• at 60 Hz rated value	24 ... 240 V
<b>control supply voltage at DC rated value</b>	24 ... 240 V
<b>operating range factor control supply voltage rated value at DC</b>	
• initial value	0.85
• full-scale value	1.1
<b>operating range factor control supply voltage rated value at AC at 50 Hz</b>	
• initial value	0.85
• full-scale value	1.1
<b>operating range factor control supply voltage rated value at AC at 60 Hz</b>	
• initial value	0.85
• full-scale value	1.1
<b>Supply voltage</b>	
<b>type of voltage of the supply voltage</b>	AC/DC
<b>supply voltage 1 at AC</b>	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
<b>supply voltage 1 at DC</b>	24 ... 240 V
<b>Measuring circuit</b>	
<b>type of current for monitoring</b>	AC/DC
<b>measurable current</b>	0.05 ... 10 A
<b>adjustable current response value current</b>	
• 1	0.1 ... 10 A
• 2	0.1 ... 10 A
<b>adjustable response delay time</b>	
• when starting	0.5 ... 30 s
• with lower or upper limit violation	0.5 ... 30 s
<b>buffering time in the event of power failure minimum</b>	10 ms
<b>internal resistance of the measuring circuit</b>	5 mΩ
<b>Precision</b>	
<b>relative metering precision</b>	20 %
<b>Communication/ Protocol</b>	
protocol is supported IO-Link protocol	No
<b>Auxiliary circuit</b>	
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
<b>number of CO contacts</b>	
• delayed switching	1
<b>operating frequency with 3RT2 contactor maximum</b>	5 000 1/h
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	1
operating voltage rated value	24 ... 240 V
<b>ampacity of the output relay at AC-15</b>	
• at 250 V at 50/60 Hz	3 A
• at 400 V at 50/60 Hz	3 A
<b>ampacity of the output relay at DC-13</b>	

<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 125 V</li> <li>• at 250 V</li> </ul>	1 A 0.2 A 0.1 A
<b>continuous current of the DIAZED fuse link of the output relay</b>	6 A
<b>Electromagnetic compatibility</b>	
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	2 kV 2 kV 1 kV
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge
<b>Galvanic isolation</b>	
<b>design of the electrical isolation</b>	galvanic isolation
<b>galvanic isolation</b>	
<ul style="list-style-type: none"> <li>• between input and output</li> <li>• between the voltage supply and other circuits</li> </ul>	Yes Yes
<b>Safety related data</b>	
product function suitable for safety function	No
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>Connections/ Terminals</b>	
<b>product component removable terminal for main circuit</b>	Yes
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	spring-loaded terminal (push-in)
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>	spring-loaded terminals spring-loaded terminals (push-in)
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> <li>• for AWG cables solid</li> <li>• for AWG cables stranded</li> </ul>	1x (0.5 ... 4 mm <sup>2</sup> ) 1x (0.5 ... 2.5 mm <sup>2</sup> ) 0.5 ... 4 mm <sup>2</sup> 1x (20 ... 12) 20 ... 12
<b>connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>	0.5 ... 4 mm <sup>2</sup> 0.5 ... 2.5 mm <sup>2</sup> 0.5 ... 4 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	20 ... 12 20 ... 12
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting
<b>height</b>	100 mm
<b>width</b>	22.5 mm
<b>depth</b>	90 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> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> </ul> </li> </ul>	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm

- at the side
- downwards
- for live parts
  - forwards
  - backwards
  - upwards
  - downwards
  - at the side

0 mm  
0 mm  
0 mm  
0 mm  
0 mm  
0 mm  
0 mm

#### Ambient conditions

installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C

#### Approvals Certificates

Environment	General Product Approval
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[Environmental Confirmations](#)



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General Product Approval	Test Certificates	other
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[Type Test Certificates/Test Report](#)

[Confirmation](#)



[Confirmation](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

##### 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=3UG5522-2AW30>

##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG5522-2AW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG5522-2AW30>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG5522-2AW30&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG5522-2AW30&lang=en)





