

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 spring-type connection system



Figure similar

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
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
Mechanical service life (switching 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 DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>	K
<b>Reference code acc. to DIN EN 81346-2</b>	K
<b>Reference code acc. to DIN EN 61346-2</b>	K
<b>Relative repeat accuracy</b>	1 %

## Product Function

<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

## Supply voltage

<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	240 ... 24 V
<b>Supply voltage 1 at DC</b>	24 ... 240 V

## Measuring circuit

<b>Type of current for monitoring</b>	AC/DC
<b>Measurable current</b>	0.05 ... 15 A
<b>Measurable line frequency</b>	40 ... 500 Hz
<b>Adjustable pick-up value current</b>	
• 1	0.05 ... 10 A
• 2	0.05 ... 10 A
<b>Adjustable response delay time</b>	
• when starting	0.1 ... 20 s
• with lower or upper limit violation	0.1 ... 20 s
<b>Adjustable switching hysteresis for measured current value</b>	10 ... 5 000 mA
<b>Buffering time in the event of power failure minimum</b>	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 CO contacts	1
<ul style="list-style-type: none"> <li>• delayed switching</li> </ul>	
Operating frequency with 3RT2 contactor maximum	5 000 1/h

### Main circuit

Number of poles for main current circuit	1
Operating voltage	24 ... 240 V
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	

### Outputs

Ampacity of the output relay at AC-15	
<ul style="list-style-type: none"> <li>• at 250 V at 50/60 Hz</li> <li>• at 400 V at 50/60 Hz</li> </ul>	3 A
Ampacity of the output relay at DC-13	
<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
Operating 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	
<ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	2 kV 2 kV 1 kV
Field-bound parasitic coupling 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	Safe isolation
Galvanic isolation	
<ul style="list-style-type: none"> <li>• between entrance and outlet</li> <li>• between the outputs</li> <li>• between the voltage supply and other circuits</li> </ul>	Yes Yes Yes

## Connections/ Terminals

<b>Product function</b>	
<ul style="list-style-type: none"> <li>removable terminal for main circuit</li> <li>removable terminal for auxiliary and control circuit</li> </ul>	<p>Yes</p> <p>Yes</p>
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control current circuit</li> </ul>	<p>spring-loaded terminals</p> <p>spring-loaded terminals</p>
<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>at AWG conductors solid</li> <li>at AWG conductors stranded</li> </ul>	<p>2x (0.25 ... 1.5 mm<sup>2</sup>)</p> <p>2 x (0.25 ... 1.5 mm<sup>2</sup>)</p> <p>2x (0.25 ... 1.5 mm<sup>2</sup>)</p> <p>2x (24 ... 16)</p> <p>2x (24 ... 16)</p>
<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>	<p>0.25 ... 1.5 mm<sup>2</sup></p> <p>0.25 ... 1.5 mm<sup>2</sup></p> <p>0.25 ... 1.5 mm<sup>2</sup></p>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>solid</li> <li>stranded</li> </ul>	<p>24 ... 16</p> <p>24 ... 16</p>

## Installation/ mounting/ dimensions

<b>Mounting position</b>	any
<b>Mounting type</b>	snap-on mounting
<b>Height</b>	94 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> <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> <li>for live parts</li> </ul>	<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>






— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm

### Ambient conditions

#### Installation altitude at height above sea level

- maximum 2 000 m

### Certificates/ approvals

General Product Approval		EMC	Declaration of Conformity	
				
CCC	UL		RCM	EG-Konf.

[Miscellaneous](#)

Test Certificates	Marine / Shipping	other	Railway
<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Special Test Certificate</a>	<a href="#">Confirmation</a>	<a href="#">Vibration and Shock</a>
	 LRS	 DNVGL.COM/AF	

### Further information

#### Information- and Downloadcenter (Catalogs, Brochures,...)

[www.siemens.com/sirius/catalogs](http://www.siemens.com/sirius/catalogs)

#### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4622-2AW30>

#### Cax online generator

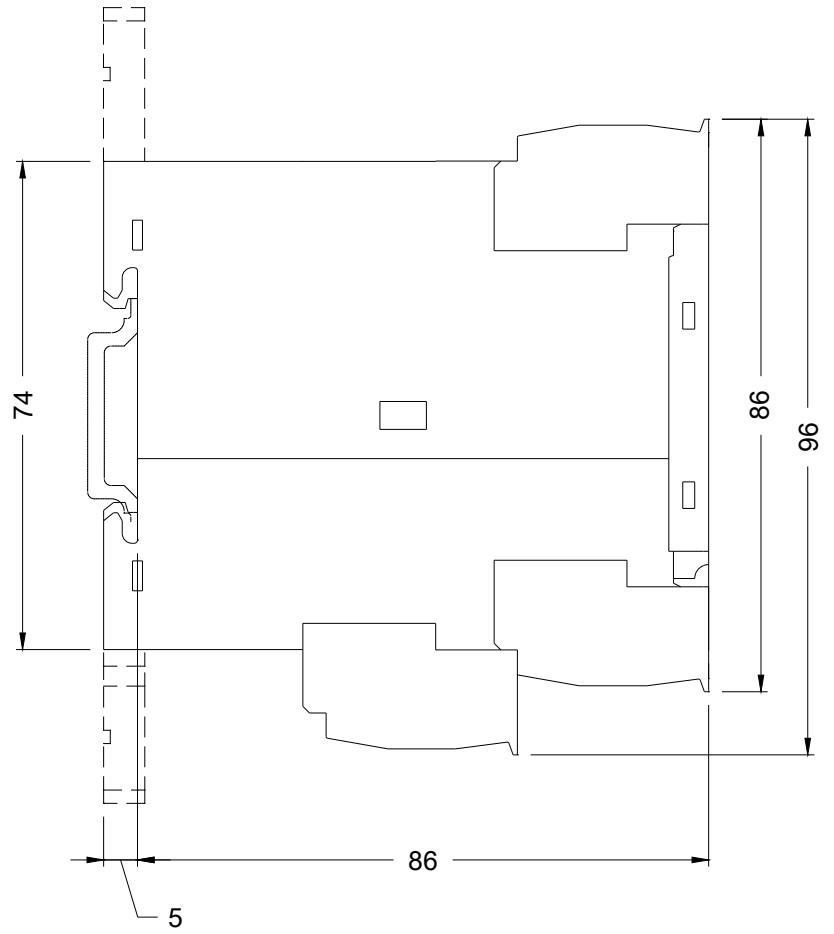
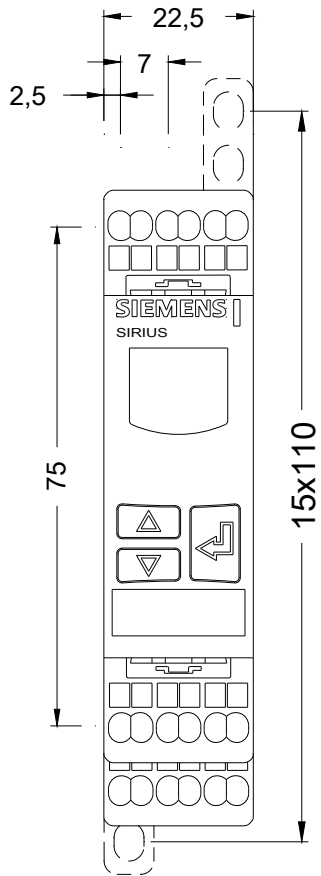
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4622-2AW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4622-2AW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4622-2AW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4622-2AW30&lang=en)



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