

Digital monitoring relay Voltage monitoring, 22.5 mm from 17-275 V  
 AC/DC Overshoot and undershoot self-supplied Noise pulses delay  
 0.1 to 20 s Hysteresis 0.1 to 150 V 1 changeover contact spring-type  
 connection system spring-type connection system



<b>Product brand name</b>	SIRIUS
<b>Product designation</b>	Voltage monitoring relay with digital setting
<b>Product type designation</b>	3UG4

**General technical data**

<b>Product function</b>	Voltage monitoring relay
<b>Design of the display</b>	LCD
<b>Insulation voltage</b>	
<ul style="list-style-type: none"> <li>• for overvoltage category III according to IEC 60664</li> <li>— with degree of pollution 3 rated value</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• Type of voltage for monitoring</li> </ul>	AC/DC
<ul style="list-style-type: none"> <li>• Type of voltage of the control supply voltage</li> </ul>	AC/DC
<b>Surge voltage resistance rated value</b>	4 kV
<b>maximum permissible voltage for safe isolation</b>	
<ul style="list-style-type: none"> <li>• between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul style="list-style-type: none"> <li>• between control and auxiliary circuit</li> </ul>	300 V
<b>Protection class IP</b>	IP20
<b>Shock resistance</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-27</li> </ul>	sinusoidal half-wave 15g / 11 ms

<b>Vibration resistance</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-6</li> </ul>	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
<b>Mechanical service life (switching cycles)</b>	
<ul style="list-style-type: none"> <li>• typical</li> </ul>	10 000 000
<b>Electrical endurance (switching cycles)</b>	
<ul style="list-style-type: none"> <li>• at AC-15 at 230 V typical</li> </ul>	100 000
<b>Reference code acc. to DIN EN 81346-2</b>	K
<b>Relative repeat accuracy</b>	1 %

## Product Function

<b>Product function</b>	
<ul style="list-style-type: none"> <li>• undervoltage detection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Overvoltage detection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Overvoltage detection 1 phase</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Overvoltage detection 3 phase</li> </ul>	No
<ul style="list-style-type: none"> <li>• Overvoltage detection DC</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• undervoltage detection 1 phase</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• undervoltage detection 3 phases</li> </ul>	No
<ul style="list-style-type: none"> <li>• undervoltage detection DC</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Voltage window recognition 1 phase</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Voltage window recognition 3 phase</li> </ul>	No
<ul style="list-style-type: none"> <li>• Voltage window recognition DC</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Adjustable open/closed-circuit current principle</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• External reset</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Auto-reset</li> </ul>	Yes

## Control circuit/ Control

<b>Control supply voltage at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> </ul>	17 ... 275 V
<ul style="list-style-type: none"> <li>• at 60 Hz rated value</li> </ul>	17 ... 275 V
<b>Control supply voltage at DC</b>	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	17 ... 275 V
<b>Operating range factor control supply voltage rated value at DC</b>	
<ul style="list-style-type: none"> <li>• initial value</li> </ul>	1
<ul style="list-style-type: none"> <li>• Full-scale value</li> </ul>	1
<b>Operating range factor control supply voltage rated value at AC at 50 Hz</b>	
<ul style="list-style-type: none"> <li>• initial value</li> </ul>	1
<ul style="list-style-type: none"> <li>• Full-scale value</li> </ul>	1
<b>Operating range factor control supply voltage rated value at AC at 60 Hz</b>	
<ul style="list-style-type: none"> <li>• initial value</li> </ul>	1

- Full-scale value

1

### Measuring circuit

<b>Measurable line frequency</b>	500 ... 40 Hz
<b>Measurable voltage at DC</b>	17 ... 275 V
<b>Adjustable response delay time</b>	
• when starting	0.1 ... 20 s
• with lower or upper limit violation	0.1 ... 20 s
<b>Accuracy of digital display</b>	+/-1 digit
<b>Relative temperature-related measurement deviation</b>	0.1 %

### Precision

<b>Relative metering precision</b>	5 %
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### Auxiliary circuit

<b>Number of NC contacts</b>	
• delayed switching	0
<b>Number of NO contacts</b>	
• delayed switching	0
<b>Number of CO contacts</b>	
• delayed switching	1
<b>Operating frequency with 3RT2 contactor maximum</b>	5 000 1/h

### Main circuit

<b>Number of poles for main current circuit</b>	1
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### Outputs

<b>Operating current at 17 V minimum</b>	5 mA
<b>Continuous current of the DIAZED fuse link of the output relay</b>	4 A

### Electromagnetic compatibility

<b>Conducted interference</b>	
• 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
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>	10 V/m
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge

### Galvanic isolation

<b>Design of the electrical isolation</b>	Protective separation
<b>Galvanic isolation</b>	
• between entrance and outlet	Yes
• between the outputs	Yes
• between the voltage supply and other circuits	No

## Connections/ Terminals

<b>Product function</b>	
<ul style="list-style-type: none"> <li>removable terminal for auxiliary and control circuit</li> </ul>	Yes
<b>Type of electrical connection</b>	spring-loaded terminals
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>solid</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>	2 x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>finely stranded without core end processing</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>at AWG conductors solid</li> </ul>	2x (24 ... 16)
<ul style="list-style-type: none"> <li>at AWG conductors stranded</li> </ul>	2x (24 ... 16)
<b>Connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>solid</li> </ul>	0.25 ... 1.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>	0.25 ... 1.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>finely stranded without core end processing</li> </ul>	0.25 ... 1.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>solid</li> </ul>	24 ... 16
<ul style="list-style-type: none"> <li>stranded</li> </ul>	24 ... 16

## 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> </ul>	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
<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> </ul> </li> </ul>	0 mm








— at the side

0 mm

## Ambient conditions

<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m
<b>Ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	85 ... -40 °C
• during transport	85 ... -40 °C

## Certificates/ approvals

General Product Approval		EMC	Declaration of Conformity		
 CCC	 UL		 RCM	 EG-Konf.	<a href="#">Miscellaneous</a>
Test Certificates	Marine / Shipping	other		Railway	
<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Special Test Certificate</a>	 LRS	 DNVGL.COM/AF	<a href="#">Confirmation</a>	<a href="#">Vibration and Shock</a>

## 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?mlfb=3UG4633-2AL30>

**Cax online generator**

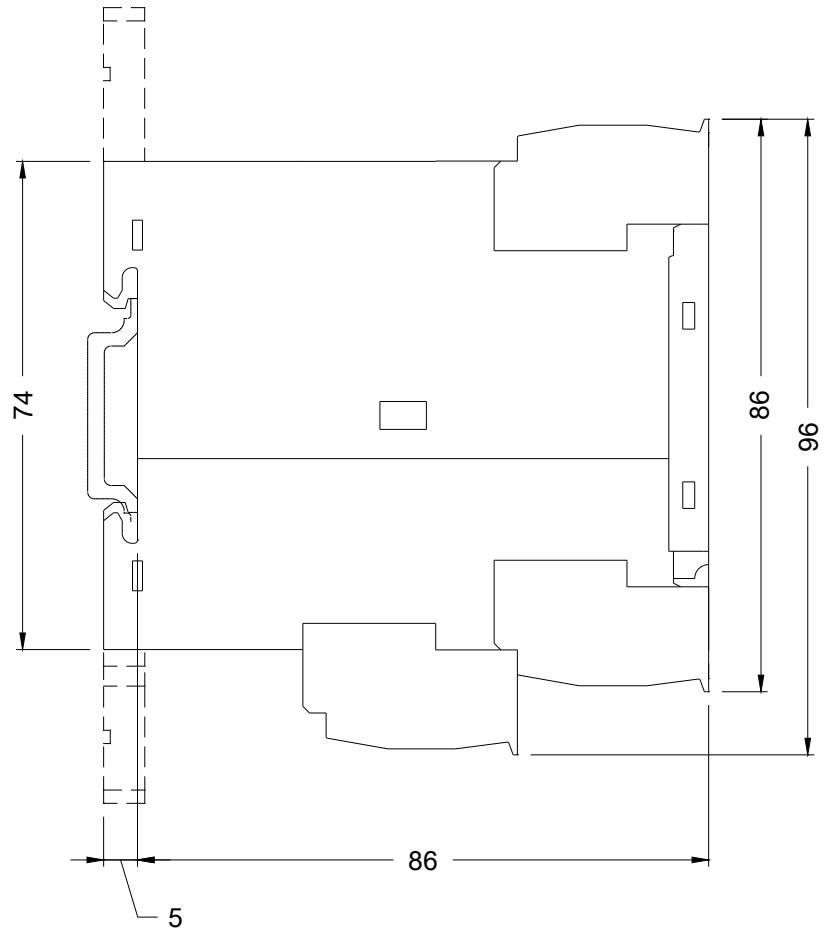
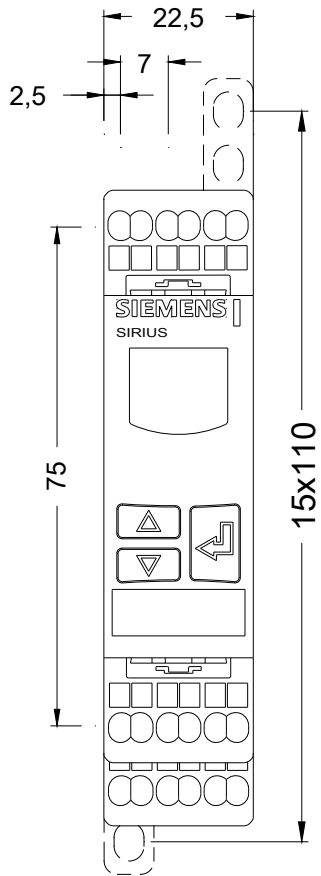
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4633-2AL30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4633-2AL30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4633-2AL30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4633-2AL30&lang=en)



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