



Digital monitoring relay Voltage monitoring, 22.5 mm from 0.1-60 V AC/DC  
Overshoot and undershoot 24 to 240 V AC/DC 50 to 60 Hz DC and AC Noise  
pulses delay 0.1 to 20 s Hysteresis 0.1 to 30 V 1 change-over contact with or  
without fault buffer spring-type connection system

product brand name	SIRIUS
product designation	Voltage monitoring relay with digital setting
product type designation	3UG4
<b>General technical data</b>	
product function	Voltage 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
type of voltage	
• for monitoring	AC/DC
• of the control supply voltage	AC/DC
surge voltage resistance rated value	4 kV
maximum permissible voltage for protective separation	
• between auxiliary and auxiliary circuit	300 V
• between control and auxiliary circuit	300 V
protection class IP	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance according 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 (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
relative repeat accuracy	1 %
Substance Prohibitance (Date)	05/01/2012
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
<b>Product Function</b>	
product function	
• undervoltage detection	Yes
• overvoltage detection	Yes
• overvoltage detection 1 phase	Yes
• overvoltage detection 3 phase	No
• overvoltage detection DC	Yes
• undervoltage detection 1 phase	Yes
• undervoltage detection 3 phases	No
• undervoltage detection DC	Yes
• voltage window recognition 1 phase	Yes
• voltage window recognition 3 phase	No

• voltage window recognition DC	Yes
• adjustable open/closed-circuit current principle	Yes
• external reset	Yes
• 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>Measuring circuit</b>	
<b>measurable line frequency</b>	40 ... 500 Hz
<b>measurable voltage at AC</b>	0.1 ... 60 V
<b>measurable voltage at DC</b>	0.1 ... 60 V
<b>adjustable response delay time</b>	
• 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 %
<b>Precision</b>	
<b>relative metering precision</b>	5 %
<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
<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
ampacity of the output relay at AC-15 at 400 V at 50/60 Hz	3 A
<b>ampacity of the output relay at DC-13</b>	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
<b>operational current at 17 V minimum</b>	5 mA
<b>continuous current of the DIAZED fuse link of the output relay</b>	4 A
<b>Electromagnetic compatibility</b>	
<b>conducted interference</b>	
• due to burst according to IEC 61000-4-4	2 kV
• due to conductor-earth surge according to IEC 61000-4-5	2 kV
• due to conductor-conductor surge according to IEC 61000-4-5	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>	Protective separation
<b>galvanic isolation</b>	
• between input and output	Yes
• between the outputs	Yes
• between the voltage supply and other circuits	Yes
<b>Electrical Safety</b>	

protection class IP on the front according to IEC 60529	IP20
<b>Connections/ Terminals</b>	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	spring-loaded terminals
type of connectable conductor cross-sections <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>	2x (0.25 ... 1.5 mm <sup>2</sup> ) 2 x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (24 ... 16) 2x (24 ... 16)
connectable conductor cross-section <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>	0.25 ... 1.5 mm <sup>2</sup> 0.25 ... 1.5 mm <sup>2</sup> 0.25 ... 1.5 mm <sup>2</sup>
AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	24 ... 16 24 ... 16
<b>Installation/ mounting/ dimensions</b>	
mounting position	any
fastening method	snap-on mounting
height	94 mm
width	22.5 mm
depth	91 mm
required spacing <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               <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>	0 mm 0 mm 0 mm 0 mm 0 mm  0 mm 0 mm 0 mm 0 mm 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
ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	-25 ... +60 °C -40 ... +85 °C -40 ... +85 °C
<b>Approvals Certificates</b>	
<b>General Product Approval</b>	



[Confirmation](#)



EMV	Test Certificates	Marine / Shipping
-----	-------------------	-------------------

[KC](#)[Special Test Certificate](#)[Type Test Certificates/Test Report](#)

other	Railway	Environment
-------	---------	-------------

[Confirmation](#)[Special Test Certificate](#)[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

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

##### 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=3UG4631-2AW30>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4631-2AW30>

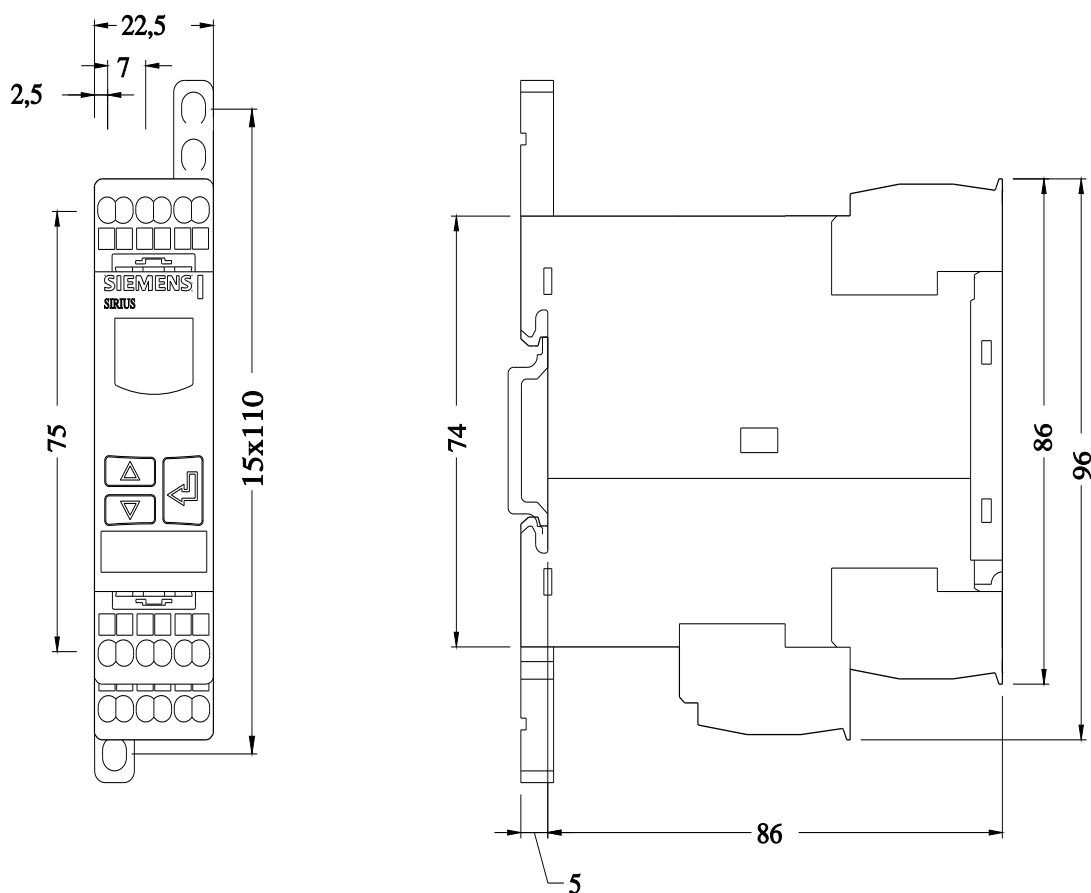
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4631-2AW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4631-2AW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4631-2AW30&lang=en)

##### Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4631-2AW30/manual>

last modified:

3/11/2024