



Digital monitoring relay for 3-phase voltage with N-conductor Phase sequence can be activated Phase failure 3 x 90 to 400 V 50 to 60 Hz AC Undervoltage and overvoltage 90-400 V Hysteresis 1-20 V 0-20 s each for Umin and Umax 1 CO for Umin 1 CO for Umax Spring-type terminal

<b>product brand name</b>	SIRIUS	
<b>product designation</b>	Network monitoring relay with digital setting	
<b>design of the product</b>	5 functions	
<b>product type designation</b>	3UG4	
<b>General technical data</b>		
<b>product function</b>	Phase monitoring relay	
<b>display version LED</b>	No	
<b>design of the display</b>	LCD	
insulation voltage for overvoltage category III according to IEC 60664	690 V	
<ul style="list-style-type: none"> <li>with degree of pollution 3 rated value</li> </ul>		
<b>degree of pollution</b>	3	
<b>type of voltage</b>	AC	
<ul style="list-style-type: none"> <li>for monitoring</li> <li>of the control supply voltage</li> </ul>		
<b>surge voltage resistance rated value</b>	6 kV	
<b>protection class IP</b>	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 (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 according to IEC 81346-2</b>	K	
<b>relative repeat accuracy</b>	1 %	
<b>Substance Prohibitance (Date)</b>	05/01/2012	
<b>Product Function</b>		
<b>product function</b>	Yes	
<ul style="list-style-type: none"> <li>undervoltage detection</li> <li>overvoltage detection</li> <li>phase sequence recognition</li> <li>phase failure detection</li> <li>asymmetry detection</li> <li>overvoltage detection 3 phase</li> <li>undervoltage detection 3 phases</li> <li>voltage window recognition 3 phase</li> <li>adjustable open/closed-circuit current principle</li> <li>auto-RESET</li> </ul>		
<b>Control circuit/ Control</b>		

<b>control supply voltage at AC</b>	
<ul style="list-style-type: none"> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> </ul>	90 ... 400 V 90 ... 400 V
<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> <li>full-scale value</li> </ul>	1 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> <li>full-scale value</li> </ul>	1 1
<b>Measuring circuit</b>	
<b>measurable voltage at AC</b>	400 ... 90 V
<b>adjustable response delay time</b>	
<ul style="list-style-type: none"> <li>with lower or upper limit violation</li> </ul>	0.1 ... 20 s
<b>accuracy of digital display</b>	+/-1 digit
<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	2
<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>	3
<b>ampacity of the output relay at AC-15</b>	
<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 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>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>	
<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>galvanic isolation</b>	
<ul style="list-style-type: none"> <li>between input and output</li> <li>between the outputs</li> <li>between the voltage supply and other circuits</li> </ul>	Yes Yes Yes
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	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> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>at AWG cables solid</li> <li>at 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)
<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> <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> <li>stranded</li> </ul>	24 ... 16

Installation/ mounting/ dimensions	
<b>mounting position</b>	any
<b>fastening method</b>	snap-on mounting
<b>height</b>	103 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 <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  0 mm 0 mm 0 mm 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>	
<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

Certificates/ approvals		
General Product Approval	EMC	Declaration of Conformity



[Confirmation](#)



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

Further information
<b>Information- and Downloadcenter (Catalogs, Brochures,...)</b> <a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a>
<b>Industry Mall (Online ordering system)</b> <a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3UG4616-2CR20">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3UG4616-2CR20</a>
<b>Cax online generator</b>

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4616-2CR20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4616-2CR20>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4616-2CR20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4616-2CR20&lang=en)

**Characteristic: Derating**

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4616-2CR20/manual>

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