



Digital monitoring relay Current monitoring, 22.5 mm from 2-500 mA AC/DC  
 Overshoot and undershoot Supply voltage: 24 V AC/DC 50 to 60 Hz DC  
 and AC without galvanic isolation to measuring circuit ON delay and noise  
 pulses delay 0.1 to 20 s Hysteresis 0.1 to 250 mA 1 change-over contact  
 with or without fault buffer Automatic reset spring-type connection system

|  |   |
|--|---|
| <b>product brand name</b>  | SIRIUS  |
| <b>product designation</b>   | Current monitoring relay with digital setting |
| <b>product type designation</b>  | 3UG4  |
| <b>General technical data</b>  |   |
| <b>product function</b>  | Current monitoring relay                      |
| <b>design of the display</b>   | LCD   |
| insulation voltage for overvoltage category III according to IEC 60664 |   |
| • with degree of pollution 3 rated value                               | 690 V   |
| <b>degree of pollution</b>   | 3   |
| <b>surge voltage resistance rated value</b>                            | 4 kV  |
| <b>maximum permissible voltage for safe isolation</b>                  |   |
| • between auxiliary and auxiliary circuit                              | 300 V   |
| • between control and auxiliary circuit                                | 300 V   |
| <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>  |   |
| • 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   |
| <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 rated value  | 24 V  |
| • at 50 Hz  | 20.4 ... 26.4 V                             |
| • at 60 Hz rated value  | 24 V  |
| • at 60 Hz  | 20.4 ... 26.4 V                             |
| <b>supply voltage 1 at DC</b>   | 20.4 ... 26.4 V                             |
| <b>supply voltage 1 at DC rated value</b>                             | 24 V  |
| <b>Measuring circuit</b>  |   |
| <b>type of current for monitoring</b>                                 | AC/DC                                       |
| <b>measurable current</b>   | 0.003 ... 0.6 A                             |
| <b>measurable line frequency</b>                                      | 40 ... 500 Hz                               |
| <b>adjustable current response value current</b>                      |   |
| • 1   | 0.003 ... 0.5 A                             |
| • 2   | 0.003 ... 0.5 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>     | 0.1 ... 250 mA                              |
| <b>buffering time in the event of power failure minimum</b>           | 10 ms                                       |
| <b>accuracy of digital display</b>                                    | +/-1 digit                                  |
| <b>relative temperature-related measurement deviation</b>             | 5 %   |
| <b>internal resistance of the measuring circuit</b>                   | 500 mΩ                                      |
| <b>Precision</b>  |   |
| <b>relative metering precision</b>                                    | 5 %   |
| <b>temperature drift per °C</b>                                       | 0.1 %/°C                                    |
| <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   |
| operating voltage rated value   | 24 ... 24 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>                          |   |
| • 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>                            | 0.005 A                                     |
| <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                       | No  |

| Connections/ Terminals   |   |                                  |
|--|---|----------------------------------|
| <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> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>   | spring-loaded terminals<br>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> )<br>2 x (0.25 ... 1.5 mm <sup>2</sup> )<br>2x (0.25 ... 1.5 mm <sup>2</sup> )<br>2x (24 ... 16)<br>2x (24 ... 16) |                                  |
| <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>  | 0.25 ... 1.5 mm <sup>2</sup><br>0.25 ... 1.5 mm <sup>2</sup><br>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<br>24 ... 16  |                                  |
| Installation/ mounting/ dimensions   |   |                                  |
| <b>mounting position</b>   | any   |                                  |
| <b>fastening method</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 <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<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>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<br>-40 ... +85 °C<br>-40 ... +85 °C  |                                  |
| Certificates/ approvals  |   |                                  |
| <b>General Product Approval</b>  | <b>EMC</b>  | <b>Declaration of Conformity</b> |

[Confirmation](#)



EG-Konf.

Test Certificates

Marine / Shipping

other

Railway

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



[Confirmation](#)

[Vibration and Shock](#)

#### 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?mfb=3UG4621-2AA30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UG4621-2AA30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4621-2AA30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3UG4621-2AA30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UG4621-2AA30&lang=en)

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4621-2AA30/manual>

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