



Digital monitoring relay cos phi and current monitoring from 90-690 V AC Overshoot and undershoot self-supplied 50 to 60 Hz AC Noise pulses delay 0.1 to 20 s Hysteresis for (I) 0.1 to 2 A 2 change-over contacts with or without fault buffer spring-type connection system

|  |   |
|--|---|
| product brand name   | SIRIUS  |
| product designation  | Cos phi monitoring relay with digital setting           |
| product type designation   | 3UG4  |
| <b>General technical data</b>  |   |
| product function   | Active power 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   |
| degree of pollution  | 3   |
| surge voltage resistance rated value                                     | 6 kV  |
| protection class IP  | IP20  |
| shock resistance according to IEC 60068-2-27                             | sinusoidal half-wave 15g / 11 ms                        |
| 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  | Bleij - 7439-92-1<br>Bleimonoxyd (Bleioxyd) - 1317-36-8 |
| <b>Product Function</b>  |   |
| product function   |   |
| • overcurrent detection 1 phase  | Yes   |
| • undercurrent detection 1 phase   | Yes   |
| • adjustable open/closed-circuit current principle                       | Yes   |
| • external reset   | Yes   |
| <b>Control circuit/ Control</b>  |   |
| type of voltage of the control supply voltage                            | AC  |
| control supply voltage at AC   |   |
| • at 50 Hz rated value   | 90 ... 690 V  |
| • at 60 Hz rated value   | 90 ... 690 V  |
| supply voltage frequency for auxiliary and control circuit rated value   | 50 ... 60 Hz  |
| operating range factor control supply voltage rated value at AC at 50 Hz |   |
| • initial value  | 1   |
| • full-scale value   | 1   |
| operating range factor control supply voltage rated value at AC at 60 Hz |   |

|  |   |
|--|---|
| • initial value  | 1   |
| • full-scale value   | 1   |
| <b>Supply voltage</b>  |   |
| supply voltage frequency rated value                                   | 60 ... 50 Hz                                |
| <b>Measuring circuit</b>   |   |
| type of current for monitoring   | AC  |
| measurable current   | 0.2 ... 10 A                                |
| adjustable current response value current                              |   |
| • 1  | 0.2 ... 10 A                                |
| • 2  | 0.2 ... 10 A                                |
| adjustable response delay time   |   |
| • when starting  | 0 ... 99 s                                  |
| • with lower or upper limit violation                                  | 0.1 ... 20 s                                |
| adjustable switching hysteresis for measured current value             | 100 ... 2 000 mA                            |
| buffering time in the event of power failure minimum                   | 10 ms                                       |
| accuracy of digital display  | +/-1 digit                                  |
| <b>Precision</b>   |   |
| relative metering precision  | 10 %  |
| <b>Auxiliary circuit</b>   |   |
| control supply voltage rated value                                     | 690 ... 90                                  |
| number of NC contacts delayed switching                                | 0   |
| number of NO contacts delayed switching                                | 0   |
| number of CO contacts delayed switching                                | 2   |
| operating frequency with 3RT2 contactor maximum                        | 5 000 1/h                                   |
| <b>Main circuit</b>  |   |
| number of poles for main current circuit                               | 2   |
| operating voltage rated value  | 90 ... 690 V                                |
| ampacity of the output relay at AC-15                                  |   |
| • at 250 V at 50/60 Hz   | 3 A   |
| • at 400 V at 50/60 Hz   | 3 A   |
| ampacity of the output relay at DC-13                                  |   |
| • at 24 V  | 1 A   |
| • at 125 V   | 0.2 A                                       |
| • at 250 V   | 0.1 A                                       |
| operational current at 17 V minimum                                    | 5 mA  |
| continuous current of the DIAZED fuse link of the output relay         | 4 A   |
| <b>Electromagnetic compatibility</b>                                   |   |
| conducted interference   |   |
| • 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  |
| field-based interference according to IEC 61000-4-3                    | 10 V/m                                      |
| electrostatic discharge according to IEC 61000-4-2                     | 6 kV contact discharge / 8 kV air discharge |
| <b>Galvanic isolation</b>  |   |
| galvanic isolation   |   |
| • between input and output   | Yes   |
| • between the outputs  | Yes   |
| • between the voltage supply and other circuits                        | Yes   |
| <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                           |   |
| • solid  | 2x (0.25 ... 1.5 mm <sup>2</sup> )          |
| • finely stranded with core end processing                             | 2 x (0.25 ... 1.5 mm <sup>2</sup> )         |
| • finely stranded without core end processing                          | 2x (0.25 ... 1.5 mm <sup>2</sup> )          |
| • for AWG cables solid   | 2x (24 ... 16)                              |
| • for AWG cables stranded  | 2x (24 ... 16)                              |
| connectable conductor cross-section                                    |   |

|   |                              |
|---|------------------------------|
| <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>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<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br><br>0 mm<br>0 mm<br>0 mm<br>0 mm<br>0 mm<br><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> </ul> | -25 ... +60 °C |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>   | -40 ... +85 °C |
| <ul style="list-style-type: none"> <li>• during transport</li> </ul> | -40 ... +85 °C |

| Approvals Certificates   |     |                                |
|--------------------------|-----|--------------------------------|
| General Product Approval | EMC | Declaration of Con-<br>formity |



[Confirmation](#)



|                                |  |                   |       |
|--------------------------------|--|-------------------|-------|
| Declaration of Con-<br>formity | Test Certificates  | Marine / Shipping | other |
|                                | <a href="#">Special Test Certificate</a><br><a href="#">Type Test Certificates/Test Report</a> |                   |       |

[Confirmation](#)

| Railway |
|---------|
|---------|

[Vibration and Shock](#)

## Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

**Siemens is working on the renewal of the current EAC certificates.**

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

**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=3UG4641-2CS20>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4641-2CS20>

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

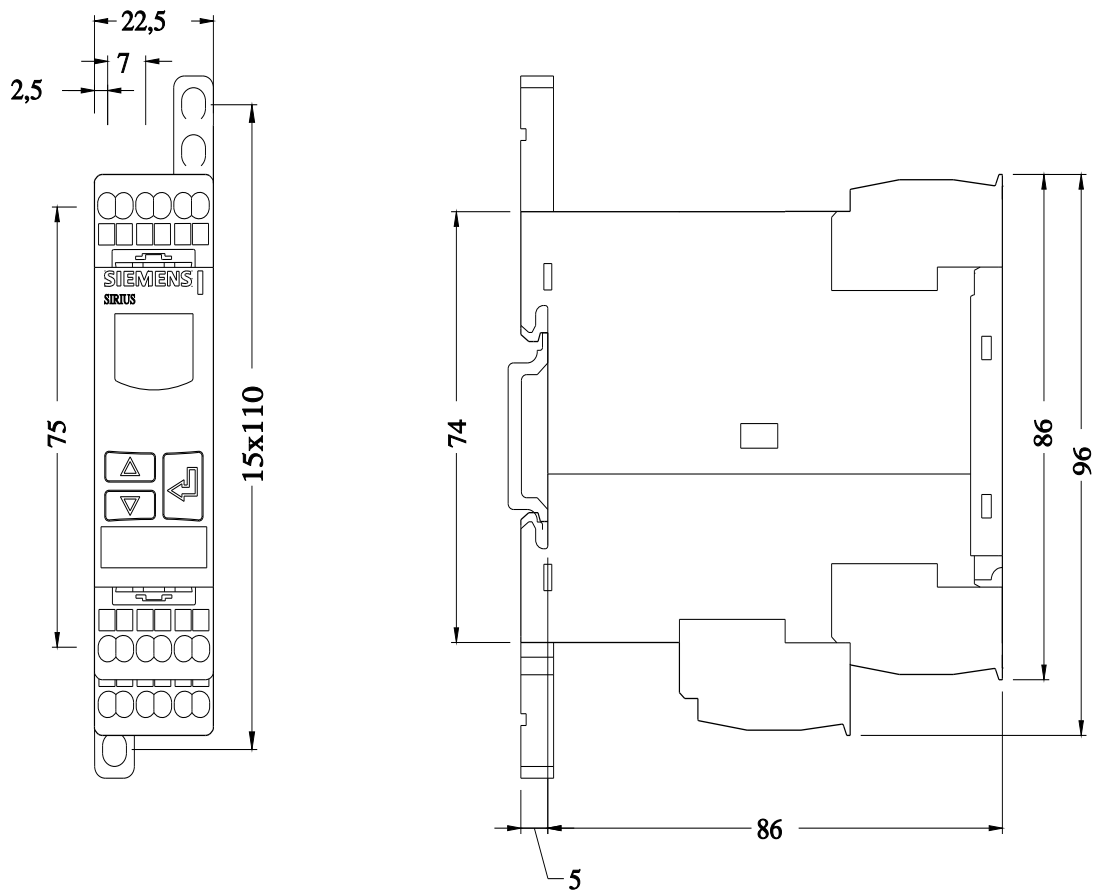
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4641-2CS20>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4641-2CS20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4641-2CS20&lang=en)

**Characteristic: Derating**

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4641-2CS20/manual>



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