



ANALOG MONITORING RELAY FILL LEVEL  
 MONITORING RESISTANCE MONITORING FROM 2  
 TO 200 KOHM OVERSHOOT AND UNDERSHOOT  
 AC/DC 24 TO 240V DC AND AC 50 TO 60 HZ 2-POINT  
 OR 1-POINT CONTROL TRIPPING DELAYED 0.5 TO  
 10S 1 CHANGEOVER CONTACT SCREW TERMINAL  
 REPLACEMENT PRODUCT F. 3UG3501

Figure similar

|   |      |                                       |
|---|------|---------------------------------------|
| <b>Product function</b>   |      | Monitoring relay for level monitoring |
| <b>Measuring circuit:</b>   |      |                                       |
| <b>Adjustable response delay time</b>                                 |      |                                       |
| • when starting   | s    | 0.5 ... 10                            |
| • with lower or upper limit violation                                 | s    | 0.5 ... 10                            |
| <b>Adjustable response value impedance</b>                            | kΩ   | 2 ... 200                             |
| <b>Measuring electrode current maximum</b>                            | mA   | 1                                     |
| <b>Measuring electrode voltage maximum</b>                            | V    | 15                                    |
| <b>Number of measuring circuits</b>                                   |      | 1                                     |
| <b>Buffering time in the event of power failure minimum</b>           | ms   | 200                                   |
| <b>General technical data:</b>  |      |                                       |
| <b>Response time maximum</b>  | ms   | 300                                   |
| <b>Relative metering precision</b>                                    | %    | 20                                    |
| <b>Temperature drift per °C</b>                                       | %/°C | 1                                     |
| <b>Relative repeat accuracy</b>                                       | %    | 1                                     |
| <b>Manufacturer article number of the optional sensor</b>             |      | 2-pole and 3-pole sensors 3UG3207     |
| <b>Cable length of sensor maximum</b>                                 | m    | 100                                   |
| <b>Display version LED</b>  |      | Yes                                   |
| <b>Product function</b>   |      |                                       |
| • Adjustable response sensitivity                                     |      | Yes                                   |
| • outlet monitoring adjustable  |      | Yes                                   |
| • inlet monitoring adjustable   |      | Yes                                   |
| • External reset  |      | Yes                                   |
| <b>Startup time after the control supply voltage has been applied</b> | ms   | 500                                   |

|   |                |  |
|---|----------------|--|
| Type of voltage of the control supply voltage   |                | AC/DC  |
| <b>Control supply voltage</b>   |                |  |
| <ul style="list-style-type: none"> <li>• with AC <ul style="list-style-type: none"> <li>— at 50 Hz Rated value</li> <li>— at 60 Hz Rated value</li> </ul> </li> <li>• for DC Rated value</li> </ul> | V<br>V<br>V    | 24 ... 240<br>24 ... 240<br>24 ... 240       |
| <b>Operating range factor control supply voltage rated value</b>  |                |  |
| <ul style="list-style-type: none"> <li>• with AC <ul style="list-style-type: none"> <li>— at 50 Hz</li> <li>— at 60 Hz</li> </ul> </li> <li>• for DC</li> </ul>                                     |                | 0.85 ... 1.1<br>0.85 ... 1.1<br>0.85 ... 1.1 |
| <b>Surge voltage resistance Rated value</b>   | kV             | 4  |
| <b>Active power consumption</b>   | W              | 2  |
| <b>Protection class IP</b>  |                | IP20   |
| <b>Electromagnetic compatibility</b>  |                | IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4  |
| <b>Vibration resistance acc. to IEC 60068-2-6</b>   |                | 1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g          |
| <b>Shock resistance acc. to IEC 60068-2-27</b>  |                | sinusoidal half-wave 15g / 11 ms             |
| <b>Installation altitude at height above sea level maximum</b>  | m              | 2 000  |
| <b>Conducted interference due to burst acc. to IEC 61000-4-4</b>  |                | 2 kV   |
| <b>Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5</b>  |                | 2 kV   |
| <b>Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5</b>  |                | 1 kV   |
| <b>Electrostatic discharge acc. to IEC 61000-4-2</b>  |                | 6 kV contact discharge / 8 kV air discharge  |
| <b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>   |                | 10 V/m                                       |
| <b>Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 Rated value</b>  | V              | 300  |
| <b>Degree of pollution</b>  |                | 3  |
| <b>Apparent power consumption with AC</b>   |                |  |
| <ul style="list-style-type: none"> <li>• at 24 V maximum</li> <li>• at 240 V maximum</li> </ul>   | V·A<br>V·A     | 2<br>4                                       |
| <b>Ambient temperature</b>  |                |  |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>  | °C<br>°C<br>°C | -25 ... +60<br>-40 ... +80<br>-40 ... +80    |
| <b>Galvanic isolation</b>   |                |  |
| <ul style="list-style-type: none"> <li>• between entrance and outlet</li> <li>• between the outputs</li> </ul>  |                | Yes<br>No                                    |

#### Mechanical data:

|  |     |  |
|--|-----|--|
| <b>Width</b>   | mm  | 22.5   |
| <b>Height</b>  | mm  | 92   |
| <b>Depth</b>   | mm  | 91   |
| <b>mounting position</b>   |     | any  |
| Required spacing for grounded parts  |     |  |
| • forwards   | mm  | 0  |
| • Backwards  | mm  | 0  |
| • at the side  | mm  | 0  |
| • upwards  | mm  | 0  |
| • downwards  | mm  | 0  |
| Required spacing with side-by-side mounting                                  |     |  |
| • forwards   | mm  | 0  |
| • Backwards  | mm  | 0  |
| • at the side  | mm  | 0  |
| • upwards  | mm  | 0  |
| • downwards  | mm  | 0  |
| Required spacing for live parts  |     |  |
| • forwards   | mm  | 0  |
| • Backwards  | mm  | 0  |
| • at the side  | mm  | 0  |
| • upwards  | mm  | 0  |
| • downwards  | mm  | 0  |
| <b>Mounting type</b>   |     | screw and snap-on mounting   |
| <b>Product function removable terminal for auxiliary and control circuit</b> |     | Yes  |
| <b>Type of electrical connection</b>   |     | screw-type terminals   |
| <b>Type of connectable conductor cross-section</b>                           |     |  |
| • solid  |     | 1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| • finely stranded  |     |  |
| — with core end processing   |     | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| • for AWG conductors   |     |  |
| — solid  |     | 2x (20 ... 14)   |
| — stranded   |     | 2x (20 ... 14)   |
| Tightening torque with screw-type terminals                                  | N·m | 0.8 ... 1.2  |








#### Outputs:

|  |   |   |
|--|---|---|
| <b>Number of NO contacts delayed switching</b> |   | 0 |
| <b>Number of NC contacts delayed switching</b> |   | 0 |
| <b>Number of CO contacts delayed switching</b> |   | 1 |
| <b>Ampacity of the output relay</b>            |   |   |
| • at AC-15                                     |   |   |
| — at 250 V at 50/60 Hz                         | A | 3 |
| — at 400 V at 50/60 Hz                         | A | 3 |

- at DC-13
  - at 24 V
  - at 125 V
  - at 250 V

|  |     |            |
|--|-----|------------|
|  | A   | 1          |
|  | A   | 0.2        |
|  | A   | 0.1        |
| <b>Operating current at 17 V minimum</b>                                 | mA  | 5          |
| <b>Continuous current of the DIAZED fuse link of the output relay</b>    | A   | 4          |
| <b>Mechanical service life (switching cycles) typical</b>                |     | 10 000 000 |
| <b>Electrical endurance (switching cycles) at AC-15 at 230 V typical</b> |     | 100 000    |
| <b>Operating frequency with 3RT2 contactor maximum</b>                   | 1/h | 5 000      |

#### Certificates/ approvals:

| General Product Approval  | EMC   | Test Certificates  |
|---|---|--|
| <br>CCC  | <br>EAC    | <br>UL        |
|   | <br>C-TICK | <a href="#">Type Test Certificates/Test Report</a><br><a href="#">Special Test Certificate</a> |
| Shipping Approval   | other   |  |
| <br>DNV | <br>GL    | <br>LRS      |
|   | <a href="#">Declaration of Conformity</a><br><a href="#">other</a>                          |  |

#### Further information

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

##### Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

##### Cax online generator

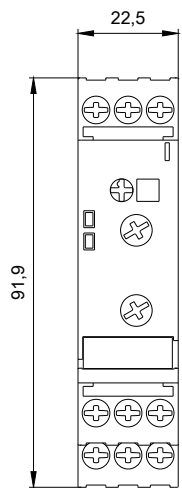
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG45011AW30>

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

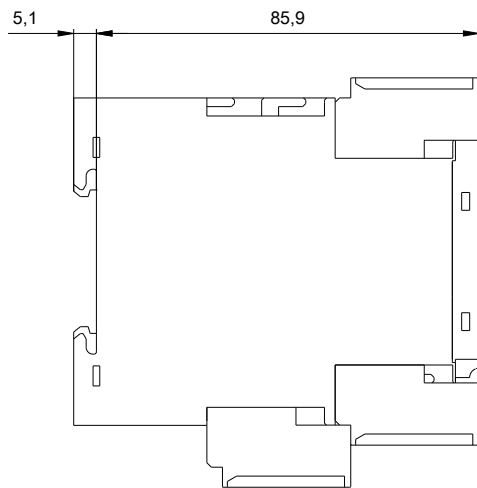
<http://support.automation.siemens.com/WW/view/en/3UG45011AW30/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3UG45011AW30&lang=en>



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