SIEMENS

## Data sheet 3UG4501-1AA30

Analog monitoring relay Fill level monitoring Resistance monitoring from 2 to 200 kohm 0vershoot and undershoot Supply voltage 24 V AC/DC 50 to 60 Hz DC and AC without galvanic isolation to measuring circuit 2-step or 1-step control Tripping delay 0.5 to 10 s 1 change-over contact screw terminal Successor product for 3UG3501-1AC20

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Level monitoring relay with analog setting |
| **product type designation** | 3UG4 |
| manufacturer's article number of the optional sensor | 2-pole and 3-pole sensors 3UG3207 |
| **General technical data** | |
| **product function** | Monitoring relay for level monitoring |
| **display version LED** | Yes |
| ● Apparent power consumption at DC | |
| — at 24 V maximum | 2 VA |
| ● apparent power consumption at AC | |
| — at 24 V maximum | 2 VA |
| **insulation voltage** | |
| ● for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value | 300 V |
| **degree of pollution** | 3 |
| **type of voltage** | |
| ● of the control supply voltage | AC/DC |
| **surge voltage resistance rated value** | 4 kV |
| **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 |
| **reference code according to IEC 81346-2** | K |
| **relative repeat accuracy** | 1 % |
| **Substance Prohibitance (Date)** | 05/01/2012 |
| **Product Function** | |
| **product function** | |
| ● outlet monitoring adjustable | Yes |
| ● adjustable responsiveness | Yes |
| ● inlet monitoring adjustable | Yes |
| ● external reset | Yes |
| **Control circuit/ Control** | |
| **control supply voltage at AC** | |
| ● at 50 Hz rated value | 24 ... 24 V |
| ● at 60 Hz rated value | 24 ... 24 V |
| **control supply voltage at DC** | |
| ● rated value | 24 ... 24 V |
| **operating range factor control supply voltage rated value at DC** | |
| ● initial value | 0.85 |

| | |
|---|---|
| ● full-scale value | 1.1 |
| **operating range factor control supply voltage rated value at AC at 50 Hz** | |
| ● initial value | 0.85 |
| ● full-scale value | 1.1 |
| **operating range factor control supply voltage rated value at AC at 60 Hz** | |
| ● initial value | 0.85 |
| ● full-scale value | 1.1 |
| **Measuring circuit** | |
| **adjustable response delay time** | |
| ● when starting | 0.5 ... 10 s |
| ● with lower or upper limit violation | 0.5 ... 10 s |
| **buffering time in the event of power failure minimum** | 200 ms |
| **physical measuring principle** | conductive |
| **Precision** | |
| **relative metering precision** | 20 % |
| **temperature drift per °C** | 1 %/°C |
| **Auxiliary circuit** | |
| number of NC contacts delayed switching | 0 |
| number of NO contacts delayed switching | 0 |
| **number of CO contacts** | |
| ● delayed switching | 1 |
| **operating frequency with 3RT2 contactor maximum** | 5 000 1/h |
| **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 |
| **Electromagnetic compatibility** | |
| **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 |
| **Galvanic isolation** | |
| **galvanic isolation** | |
| ● between input and output | Yes |
| ● between the outputs | No |
| **Connections/ Terminals** | |
| **product component removable terminal for auxiliary and control circuit** | Yes |
| **type of electrical connection** | screw-type terminals |
| **type of connectable conductor cross-sections** | |
| ● solid | 1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²) |
| ● finely stranded with core end processing | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²) |
| ● at AWG cables solid | 2x (20 ... 14) |
| ● at AWG cables stranded | 2x (20 ... 14) |
| **connectable conductor cross-section** | |
| ● solid | 0.5 ... 4 mm² |
| ● finely stranded with core end processing | 0.5 ... 2.5 mm² |
| **AWG number as coded connectable conductor cross section** | |
| ● solid | 20 ... 14 |
| ● stranded | 20 ... 14 |
| tightening torque with screw-type terminals | 0.8 ... 1.2 N·m |

| Installation/ mounting/ dimensions | |
|---|---|
| **mounting position** | any |
| **fastening method** | screw and snap-on mounting |
| **height** | 92 mm |
| **width** | 22.5 mm |
| **depth** | 91 mm |
| **required spacing** | |
| ● with side-by-side mounting | |
| — forwards | 0 mm |
| — backwards | 0 mm |
| — upwards | 0 mm |
| — downwards | 0 mm |
| — at the side | 0 mm |
| ● for grounded parts | |
| — forwards | 0 mm |
| — backwards | 0 mm |
| — upwards | 0 mm |
| — at the side | 0 mm |
| — downwards | 0 mm |
| ● for live parts | |
| — forwards | 0 mm |
| — backwards | 0 mm |
| — upwards | 0 mm |
| — downwards | 0 mm |
| — at the side | 0 mm |

| Ambient conditions | |
|---|---|
| installation altitude at height above sea level maximum | 2 000 m |
| **ambient temperature** | |
| ● during operation | -25 ... +60 °C |
| ● during storage | -40 ... +80 °C |
| ● during transport | -40 ... +80 °C |

## Certificates/ approvals

| General Product Approval | | | | EMC | Declaration of Conformity |
|---|---|---|---|---|---|
| Confirmation | | | | | |

| Declaration of Conformity | Test Certificates | | Marine / Shipping | | other |
|---|---|---|---|---|---|
| | Special Test Certific-ate | Type Test Certific-ates/Test Report | | | 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

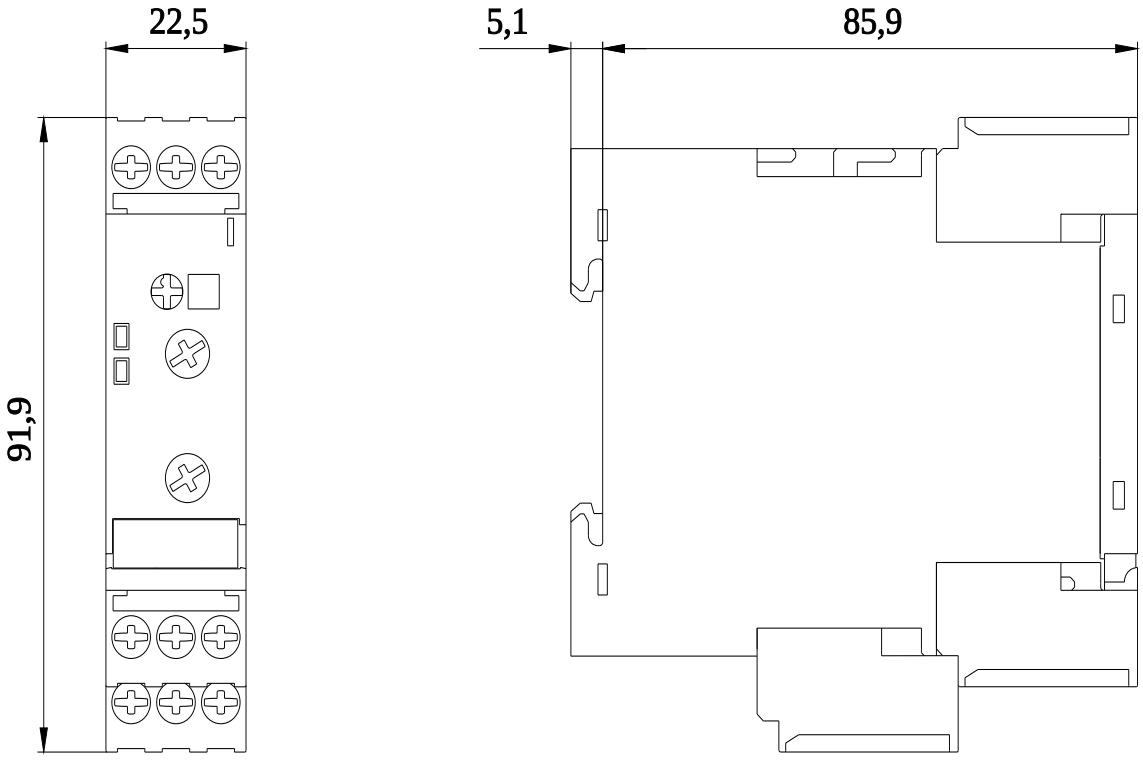
**Industry Mall (Online ordering system)**
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4501-1AA30

**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4501-1AA30

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3UG4501-1AA30

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4501-1AA30&lang=en

**Characteristic: Derating**
https://support.industry.siemens.com/cs/ww/en/ps/3UG4501-1AA30/manual

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