



Digital monitoring relay Voltage monitoring, 22.5 mm from 10 to 600 V AC/DC Overshoot and undershoot 24 to 240 V AC/DC 50 to 60 Hz DC and AC Noise pulses delay 0.1 to 20 s Hysteresis 0.1 to 300 V 1 change-over contact with or without fault buffer screw terminal Successor product for 3UG3532-1AL20, 3UG3532-1AG20

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|--|---|--------------------------|-----|-------------------------|-----|---------------------------------|-----|---------------------------------|----|----------------------------|-----|----------------------------------|-----|-----------------------------------|----|-----------------------------|-----|--------------------------------------|-----|--------------------------------------|----|---------------------------------|-----|
| product brand name | SIRIUS | | | | | | | | | | | | | | | | | | | | | | |
| product designation | Voltage monitoring relay with digital setting | | | | | | | | | | | | | | | | | | | | | | |
| product type designation | 3UG4 | | | | | | | | | | | | | | | | | | | | | | |
| General technical data | | | | | | | | | | | | | | | | | | | | | | | |
| product function | Voltage monitoring relay | | | | | | | | | | | | | | | | | | | | | | |
| design of the display | LCD | | | | | | | | | | | | | | | | | | | | | | |
| insulation voltage for overvoltage category III according to IEC 60664 | 690 V | | | | | | | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> with degree of pollution 3 rated value | | | | | | | | | | | | | | | | | | | | | | | |
| type of voltage | AC/DC | | | | | | | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> for monitoring of the control supply voltage | | | | | | | | | | | | | | | | | | | | | | | |
| surge voltage resistance rated value | 4 kV | | | | | | | | | | | | | | | | | | | | | | |
| maximum permissible voltage for safe isolation | 300 V | | | | | | | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> between auxiliary and auxiliary circuit between control and auxiliary circuit | | | | | | | | | | | | | | | | | | | | | | | |
| 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 (switching cycles) typical | 10 000 000 | | | | | | | | | | | | | | | | | | | | | | |
| electrical endurance (switching 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 | | | | | | | | | | | | | | | | | | | | | | |
| Product Function | | | | | | | | | | | | | | | | | | | | | | | |
| product function | <table border="0"> <tr><td>• undervoltage detection</td><td>Yes</td></tr> <tr><td>• overvoltage detection</td><td>Yes</td></tr> <tr><td>• overvoltage detection 1 phase</td><td>Yes</td></tr> <tr><td>• overvoltage detection 3 phase</td><td>No</td></tr> <tr><td>• overvoltage detection DC</td><td>Yes</td></tr> <tr><td>• undervoltage detection 1 phase</td><td>Yes</td></tr> <tr><td>• undervoltage detection 3 phases</td><td>No</td></tr> <tr><td>• undervoltage detection DC</td><td>Yes</td></tr> <tr><td>• voltage window recognition 1 phase</td><td>Yes</td></tr> <tr><td>• voltage window recognition 3 phase</td><td>No</td></tr> <tr><td>• voltage window recognition DC</td><td>Yes</td></tr> </table> | • undervoltage detection | Yes | • overvoltage detection | Yes | • overvoltage detection 1 phase | Yes | • overvoltage detection 3 phase | No | • overvoltage detection DC | Yes | • undervoltage detection 1 phase | Yes | • undervoltage detection 3 phases | No | • undervoltage detection DC | Yes | • voltage window recognition 1 phase | Yes | • voltage window recognition 3 phase | No | • voltage window recognition DC | Yes |
| • undervoltage detection | | Yes | | | | | | | | | | | | | | | | | | | | | |
| • overvoltage detection | | Yes | | | | | | | | | | | | | | | | | | | | | |
| • overvoltage detection 1 phase | | Yes | | | | | | | | | | | | | | | | | | | | | |
| • overvoltage detection 3 phase | | No | | | | | | | | | | | | | | | | | | | | | |
| • overvoltage detection DC | | Yes | | | | | | | | | | | | | | | | | | | | | |
| • undervoltage detection 1 phase | | Yes | | | | | | | | | | | | | | | | | | | | | |
| • undervoltage detection 3 phases | | No | | | | | | | | | | | | | | | | | | | | | |
| • undervoltage detection DC | | Yes | | | | | | | | | | | | | | | | | | | | | |
| • voltage window recognition 1 phase | | Yes | | | | | | | | | | | | | | | | | | | | | |
| • voltage window recognition 3 phase | | No | | | | | | | | | | | | | | | | | | | | | |
| • voltage window recognition DC | | Yes | | | | | | | | | | | | | | | | | | | | | |

| | |
|---|---|
| <ul style="list-style-type: none"> adjustable open/closed-circuit current principle | Yes |
| <ul style="list-style-type: none"> external reset | Yes |
| <ul style="list-style-type: none"> auto-RESET | Yes |
| Control circuit/ Control | |
| control supply voltage at AC | |
| <ul style="list-style-type: none"> at 50 Hz rated value | 24 ... 240 V |
| <ul style="list-style-type: none"> at 60 Hz rated value | 24 ... 240 V |
| control supply voltage at DC | |
| <ul style="list-style-type: none"> rated value | 24 ... 240 V |
| operating range factor control supply voltage rated value at DC | |
| <ul style="list-style-type: none"> initial value | 0.85 |
| <ul style="list-style-type: none"> full-scale value | 1.1 |
| operating range factor control supply voltage rated value at AC at 50 Hz | |
| <ul style="list-style-type: none"> initial value | 0.85 |
| <ul style="list-style-type: none"> full-scale value | 1.1 |
| operating range factor control supply voltage rated value at AC at 60 Hz | |
| <ul style="list-style-type: none"> initial value | 0.85 |
| <ul style="list-style-type: none"> full-scale value | 1.1 |
| Measuring circuit | |
| measurable line frequency | 40 ... 500 Hz |
| measurable voltage at AC | 600 ... 10 V |
| measurable voltage at DC | 10 ... 600 V |
| adjustable response delay time | |
| <ul style="list-style-type: none"> with lower or upper limit violation | 0.1 ... 20 s |
| accuracy of digital display | +/-1 digit |
| relative temperature-related measurement deviation | 0.1 % |
| Precision | |
| relative metering precision | 5 % |
| 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 |
| Main circuit | |
| number of poles for main current circuit | 1 |
| 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 | |
| <ul style="list-style-type: none"> due to burst according to IEC 61000-4-4 | 2 kV |
| <ul style="list-style-type: none"> due to conductor-earth surge according to IEC 61000-4-5 | 2 kV |
| <ul style="list-style-type: none"> 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 | |
| design of the electrical isolation | Protective separation |
| galvanic isolation | |
| <ul style="list-style-type: none"> between input and output | Yes |
| <ul style="list-style-type: none"> between the outputs | Yes |
| <ul style="list-style-type: none"> between the voltage supply and other circuits | Yes |
| 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 | |

| | |
|--|--|
| <ul style="list-style-type: none"> • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded | 1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) 2x (20 ... 14) 2x (20 ... 14) |
| connectable conductor cross-section <ul style="list-style-type: none"> • solid • finely stranded with core end processing | 0.5 ... 4 mm ² 0.5 ... 2.5 mm ² |
| AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> • solid • stranded | 20 ... 14 20 ... 14 |
| tightening torque with screw-type terminals | 1.2 ... 0.8 N·m |

Installation/ mounting/ dimensions

| | |
|---|------------------|
| mounting position | any |
| fastening method | snap-on mounting |
| height | 92 mm |
| width | 22.5 mm |
| depth | 91 mm |
| required spacing <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — at the side 0 mm — downwards 0 mm • for live parts <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — at the side 0 mm | |

Ambient conditions

| | |
|--|---------|
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature <ul style="list-style-type: none"> • during operation -25 ... +60 °C • during storage -40 ... +85 °C • during transport -40 ... +85 °C | |

Certificates/ approvals

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

[Confirmation](#)



| | | | |
|--------------------------|--------------------------|--------------|----------------|
| Test Certificates | Marine / Shipping | other | Railway |
|--------------------------|--------------------------|--------------|----------------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[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?mlfb=3UG4632-1AW30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4632-1AW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4632-1AW30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4632-1AW30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4632-1AW30/manual>

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