



Digital monitoring relay Voltage monitoring, 22.5 mm from 0.1-60 V AC/DC
 Overshoot and undershoot Supply voltage: 24 V AC/DC 50 to 60 Hz DC
 and AC without galvanic isolation to measuring circuit Noise pulses delay
 0.1 to 20 s Hysteresis 0.1 to 30 V 1 change-over contact with or without
 fault buffer screw terminal Successor product for 3UG3531-1AC..

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	
<ul style="list-style-type: none"> with degree of pollution 3 rated value 	690 V
type of voltage	
<ul style="list-style-type: none"> for monitoring of the control supply voltage 	AC/DC AC/DC
surge voltage resistance rated value	4 kV
maximum permissible voltage for safe isolation	
<ul style="list-style-type: none"> between auxiliary and auxiliary circuit between control and auxiliary circuit 	300 V 300 V
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
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	
<ul style="list-style-type: none"> undervoltage detection overvoltage detection overvoltage detection 1 phase overvoltage detection 3 phase overvoltage detection DC undervoltage detection 1 phase undervoltage detection 3 phases undervoltage detection DC voltage window recognition 1 phase voltage window recognition 3 phase voltage window recognition DC adjustable open/closed-circuit current principle external reset 	Yes Yes Yes No Yes Yes No Yes Yes No Yes Yes Yes Yes

• auto-RESET	Yes
Control circuit/ Control	
control supply voltage at AC	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
control supply voltage at DC	
• rated value	24 V
operating range factor control supply voltage rated value at DC	
• initial value	0.85
• full-scale value	1.15
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	0.85
• full-scale value	1.15
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.85
• full-scale value	1.15
Measuring circuit	
measurable line frequency	40 ... 500 Hz
measurable voltage at AC	0.1 ... 60 V
measurable voltage at DC	0.1 ... 60 V
adjustable response delay time	
• 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
ampacity of the output relay at AC-15 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	
design of the electrical isolation	Protective separation
galvanic isolation	
• between input and output	Yes
• between the outputs	Yes
• between the voltage supply and other circuits	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
- finely stranded with core end processing
- at AWG cables solid
- at AWG cables stranded

1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
 2x (20 ... 14)
 2x (20 ... 14)

connectable conductor cross-section

- solid
- finely stranded with core end processing

0.5 ... 4 mm²
 0.5 ... 2.5 mm²

AWG number as coded connectable conductor cross section

- 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

- 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
- 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 ... +85 °C
- during transport -40 ... +85 °C

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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[Confirmation](#)



Declaration of Conformity	Test Certificates	Marine / Shipping	other
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



[Confirmation](#)

Railway

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=3UG4631-1AA30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4631-1AA30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4631-1AA30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4631-1AA30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4631-1AA30/manual>

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