

## Data sheet

3UG4501-1AW30

!!! product phase-out !!! the preferred successor is 3UG5501-1AW30 analog monitoring relay level monitoring resistance monitoring from 2 to 200 kohm overshoot and undershoot 24 to 240 V AC/DC 50 to 60 Hz DC and AC 2-step or 1-step control tripping delay 0.5 to 10 s 1 changeover contact screw terminal

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
<b>General technical data</b>	
product function	Monitoring relay for level monitoring
display version LED	Yes
• Apparent power consumption at DC — at 24 V maximum — at 240 V maximum	2 VA 4 VA
• apparent power consumption at AC — at 24 V maximum — at 240 V maximum	2 VA 4 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 operating voltage for actuation • of the control supply voltage	AC/DC AC/DC
surge voltage resistance rated value	4 kV
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
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1
Net Weight	0.144 kg
<b>Product Function</b>	
product function	
• outlet monitoring adjustable • adjustable responsiveness • inlet monitoring adjustable • external reset	Yes Yes Yes Yes
<b>Control circuit/ Control</b>	
control supply voltage at AC	
• at 50 Hz rated value • at 60 Hz rated value	24 ... 240 V 24 ... 240 V
control supply voltage at DC rated value	24 ... 240 V
operating range factor control supply voltage rated value at DC	
• initial value • full-scale value	0.85 1.1
operating range factor control supply voltage rated value at	

<b>AC at 50 Hz</b>	
• initial value	0.85
• full-scale value	1.1
<b>operating range factor control supply voltage rated value at AC at 60 Hz</b>	
• initial value	0.85
• full-scale value	1.1
<b>Measuring circuit</b>	
<b>adjustable response delay time</b>	
• when starting	0.5 ... 10 s
• with lower or upper limit violation	0.5 ... 10 s
<b>buffering time in the event of power failure minimum</b>	200 ms
<b>response time maximum</b>	300 ms
<b>physical measuring principle</b>	conductive
<b>Precision</b>	
<b>relative metering precision</b>	20 %
<b>temperature drift per °C</b>	1 %/°C
<b>Auxiliary circuit</b>	
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
<b>number of CO contacts</b>	
• delayed switching	1
<b>operating frequency with 3RT2 contactor maximum</b>	5 000 1/h
<b>ampacity of the output relay at AC-15</b>	
• at 250 V at 50/60 Hz	3 A
• at 400 V at 50/60 Hz	3 A
<b>ampacity of the output relay at DC-13</b>	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
<b>operational current at 17 V minimum</b>	5 mA
<b>continuous current of the DIAZED fuse link of the output relay</b>	4 A
<b>Electromagnetic compatibility</b>	
<b>conducted interference</b>	
• 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
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge
<b>Galvanic isolation</b>	
<b>galvanic isolation</b>	
• between input and output	Yes
• between the outputs	No
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	screw terminal
<b>type of connectable conductor cross-sections</b>	
• solid	1x (0.5 ... 4 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 cables solid	2x (20 ... 14)
• for AWG cables stranded	2x (20 ... 14)
<b>connectable conductor cross-section</b>	
• solid	0.5 ... 4 mm <sup>2</sup>
• finely stranded with core end processing	0.5 ... 2.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross</b>	

<b>section</b>	
• solid	20 ... 14
• stranded	20 ... 14
tightening torque with screw-type terminals	0.8 ... 1.2 N·m
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting
<b>height</b>	92 mm
<b>width</b>	22.5 mm
<b>depth</b>	91 mm
<b>required spacing</b>	
• 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

<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C

<b>Approvals Certificates</b>	
Environmental Product Declaration	
• global warming potential [CO2 eq] / during manufacturing	3.51 kg
• global warming potential [CO2 eq] / during sales	0.0276 kg
• global warming potential [CO2 eq] / during operation	13.7 kg
• global warming potential [CO2 eq] / after end of life	-1.12 kg
• global warming potential [CO2 eq] / total	16.1 kg

<b>Environment</b>	<b>General Product Approval</b>
--------------------	---------------------------------

[Environmental Confirmations](#)



<b>General Product Approval</b>	<b>EMV</b>	<b>Test Certificates</b>	<b>Maritime application</b>
---------------------------------	------------	--------------------------	-----------------------------



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



<b>Maritime application</b>	<b>other</b>	<b>Railway</b>
-----------------------------	--------------	----------------

**Further information**

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3UG4501-1AW30>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4501-1AW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4501-1AW30>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG4501-1AW30&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4501-1AW30&lang=en)

last modified:

10/17/2025 