



Analog monitoring relay Fill level monitoring Resistance monitoring from 2 to 200 kohm Overshoot 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
<ul style="list-style-type: none"> • Apparent power consumption at DC <ul style="list-style-type: none"> — at 24 V maximum • apparent power consumption at AC <ul style="list-style-type: none"> — at 24 V maximum 	2 VA 2 VA
insulation voltage <ul style="list-style-type: none"> • for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value 	300 V
degree of pollution	3
type of voltage <ul style="list-style-type: none"> • 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
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	0.143 kg
Product Function	
product function <ul style="list-style-type: none"> • outlet monitoring adjustable • adjustable responsiveness • inlet monitoring adjustable • external reset 	Yes Yes Yes Yes
Control circuit/ Control	
control supply voltage at AC <ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	24 ... 24 V 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
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	screw terminal
type of connectable conductor cross-sections	
• solid	1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²)
• finely stranded with core end processing	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• for AWG cables solid	2x (20 ... 14)
• for AWG cables stranded	2x (20 ... 14)
connectable conductor cross-section	

<ul style="list-style-type: none"> • solid • finely stranded with core end processing 	<p>0.5 ... 4 mm²</p> <p>0.5 ... 2.5 mm²</p>
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid • stranded 	<p>20 ... 14</p> <p>20 ... 14</p>
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	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side 	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>

Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p>

Approvals Certificates

General Product Approval



[Confirmation](#)



EMV Test Certificates Marine / Shipping



[KC](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



other Railway Environment

[Confirmation](#)

[Special Test Certificate](#)



[Environmental Confirmations](#)

Further information

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,...)

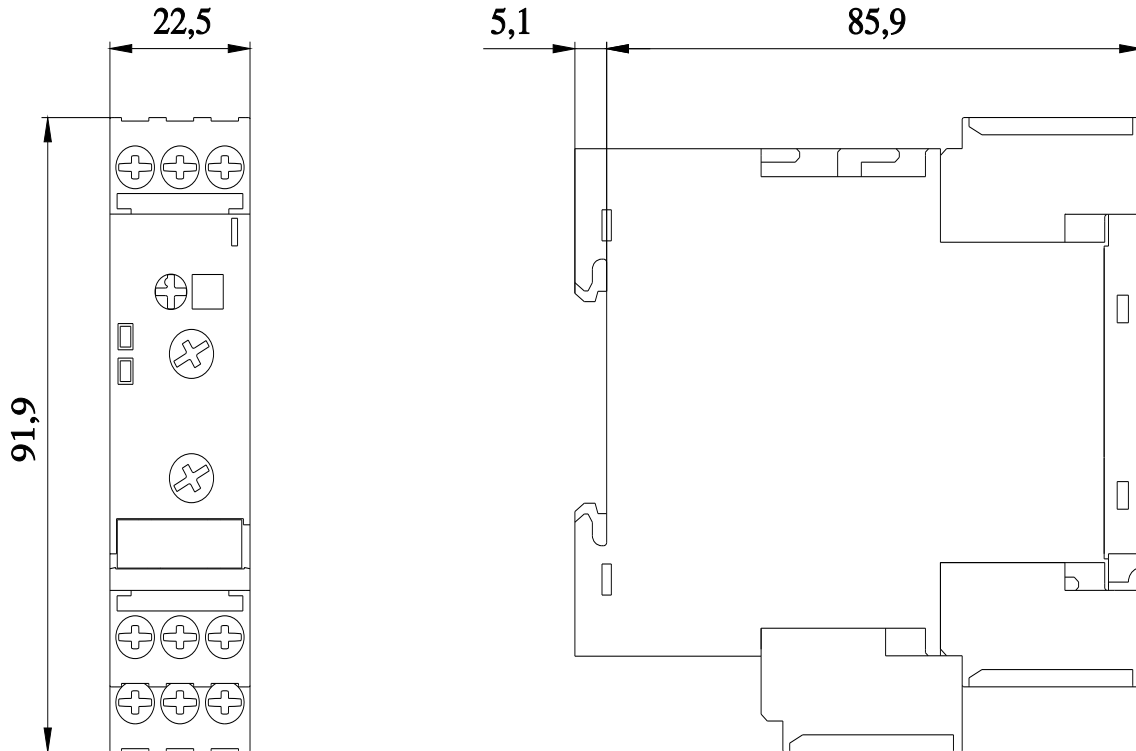
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4501-1AA30>

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>



last modified:

4/8/2024 