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Data sheet 3UG4501-1AW30



Figure similar

!!! 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
General technical data	
product function	Monitoring relay for level monitoring
display version LED	Yes
● Apparent power consumption at DC	
— at 24 V maximum	2 V·A
— at 240 V maximum	4 V·A
● apparent power consumption at AC	
— at 24 V maximum	2 V·A
— at 240 V maximum	4 V·A
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	AC/DC
● of the control supply voltage	AC/DC
surge voltage resistance rated value	4 kV
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15 g / 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 (day/month/year)	05/01/2012
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
Net Weight	0.129 kg
Product Function	
product function	
● outlet monitoring adjustable	Yes
● adjustable responsiveness	Yes

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● inlet monitoring adjustable	Yes
● external reset	Yes
Control circuit/ Control	
control supply voltage at AC	
● at 50 Hz rated value	24 ... 240 V
● at 60 Hz rated value	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	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
response time maximum	300 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	

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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 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)
● for AWG cables solid	2x (20 ... 14)
● for 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
Approvals Certificates	
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

Environment	General Product Approval

Environmental Confirmations

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General Product Approval	EMV	Test Certificates		Maritime application
UKCA	KC RCM	Special Test Certificate	Type Test Certificates/Test Report	DNV

Maritime application	other	Railway
Lloyd's Register LRS	Confirmation 产品合格 QC PASS	Special Test Certificate

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

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