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Data sheet 3UG5501-1AW30

Siemens EcoTech

analog monitoring relay level monitoring resistance monitoring from 0.5 to 500 kohm overshoot and undershoot supply voltage 24 ... 240 V AC/DC, 50 .. 60 Hz 2-step or 1-step control tripping delay 0.5-30 s 1 changeover contact screw terminal

product brand name	SIRIUS
product designation	Level monitoring relay with analog setting
design of the product	level monitoring, externally supplied with auxiliary voltage
product type designation	3UG5
manufacturer's article number of the optional sensor	2-pole and 3-pole sensors 3UG5207
General technical data	
product function	analog setting level monitoring relay
display version LED	Yes
power loss [W] maximum	1.5 W
power loss [V·A] maximum	3 V·A
● Apparent power consumption at DC	
— at 24 V maximum	1 V·A
— at 240 V maximum	3 V·A
● apparent power consumption at AC	
— at 24 V maximum	1 V·A
— at 240 V maximum	3 V·A
insulation voltage	
● **rated value**	300 V
● 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
protection class IP	
● of the enclosure	IP20
● of the terminal	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15 g / 11 ms
vibration resistance according to IEC 60068-2-6	f = 4 ... 5,81 Hz, dmax = 15 mm; f = 5,81 ... 500 Hz, amax = 20 m/s²; 10 Zyklen
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 (day/month/year)	06/01/2023
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8
Net Weight	0.136 kg
Product Function	
product function	
● outlet monitoring adjustable	Yes
● adjustable responsiveness	Yes
● inlet monitoring adjustable	Yes
Control circuit/ Control	
control supply voltage at AC	
● at 50 Hz rated value	24 ... 240 V

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● 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 operating delay time	0.5 ... 30 s
adjustable response delay time	
● with lower or upper limit violation	0.5 ... 30 s
buffering time in the event of power failure minimum	20 ms
response time maximum	500 ms
physical measuring principle	conductive
Precision	
relative metering precision	20 %
temperature drift per °C	1 %/°C
Auxiliary circuit	
number of CO contacts	
● for auxiliary contacts	1
● delayed switching	1
operating frequency with 3RT2 contactor maximum	5 000 1/h
Inputs/ Outputs	
number of inputs	2
ampacity of the output relay at AC-15	
● at 230 V at 50/60 Hz	3 A
● 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 110 V	0.2 A
● at 125 V	0.2 A
● at 230 V	0.1 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	6 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	
● electrical separation between input and output	Yes
● galvanic isolation between the voltage supply and other circuits	Yes
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 ... 4 mm²), 2x (0.5 ... 1.5 mm²)
● for AWG cables solid	1x (20 ... 12), 2x (20 ... 14)
connectable conductor cross-section	
● solid	0.5 ... 4 mm²
● finely stranded with core end processing	0.5 ... 4 mm²
AWG number as coded connectable conductor cross section	
● solid	20 ... 12
● stranded	20 ... 12
tightening torque with screw-type terminals	0.6 ... 0.8 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting
height	100 mm
width	22.5 mm
depth	90 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

Environment	General Product Approval
Environmental Confirmations	

General Product Approval	EMV	Test Certificates	Maritime application	other

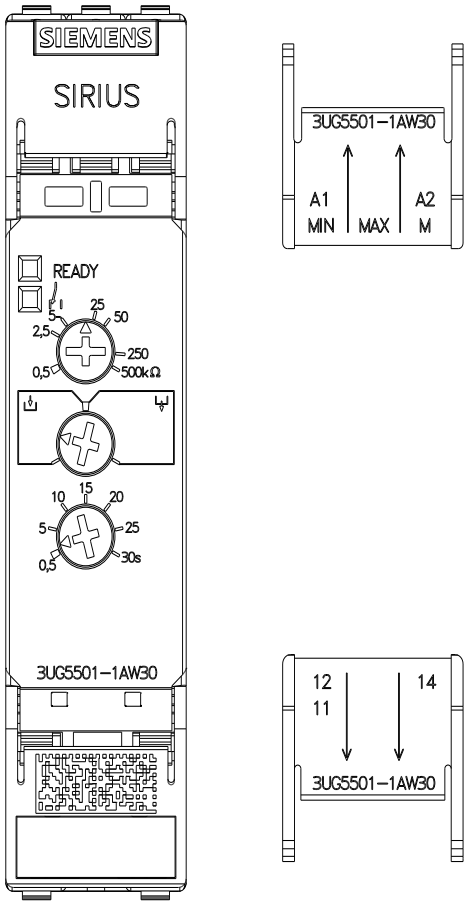
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Type Test Certific-ates/Test Report

Confirmation

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,…)
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Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UG5501-1AW30
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
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