



ANALOG MONITORING RELAY FILL LEVEL MONITORING
 RESISTANCE MONITORING FROM 2 TO 200 KOHM
 OVERTHROOT AND UNDERSHOOT AC/DC 24 TO 240V DC
 AND AC 50 TO 60 HZ 2-POINT OR 1-POINT CONTROL
 TRIPPING DELAYED 0.5 TO 10S 1 CHANGEOVER
 CONTACT SCREW TERMINAL REPLACEMENT PRODUCT
 F. 3UG3501

Product function	Monitoring relay for level monitoring
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Measuring circuit:

Adjustable response delay time		
• when starting	s	0.3 ... 10
• with lower or upper limit violation	s	0.3 ... 10
Adjustable response value impedance	kΩ	2 ... 200
Measuring electrode current / maximum	mA	1
Measuring electrode voltage / maximum	V	15
Number of measuring circuits		1
Stored energy time / at mains power cut / minimum	ms	200

General technical details:

Response time / maximum	ms	300
Relative metering precision	%	20
Temperature drift per °C	%/°C	1
Relative repeat accuracy	%	1
Manufacturer article number / of the optional sensor		2-pole and 3-pole sensors 3UG3207
Cable length / of the sensor / maximum	m	100
Type of display / LED		Yes
Product function		
• response sensitivity adjustable		Yes

<ul style="list-style-type: none"> • outlet monitoring adjustable 		Yes
<ul style="list-style-type: none"> • inlet monitoring adjustable 		Yes
<ul style="list-style-type: none"> • reset external 		Yes
Starting time / after the control supply voltage has been applied	ms	500
Type of voltage / of the controlled supply voltage		AC/DC
Control supply voltage		
<ul style="list-style-type: none"> • at 50 Hz / at AC <ul style="list-style-type: none"> • rated value 	V	24 ... 240
<ul style="list-style-type: none"> • at 60 Hz / at AC <ul style="list-style-type: none"> • rated value 	V	24 ... 240
<ul style="list-style-type: none"> • for DC <ul style="list-style-type: none"> • rated value 	V	24 ... 240
Operating range factor control supply voltage rated value		
<ul style="list-style-type: none"> • at 50 Hz <ul style="list-style-type: none"> • for AC 		0.85 ... 1.1
<ul style="list-style-type: none"> • at 60 Hz <ul style="list-style-type: none"> • for AC 		0.85 ... 1.1
<ul style="list-style-type: none"> • for DC 		0.85 ... 1.1
Impulse voltage resistance / rated value	kV	4
Recorded real power	W	2
Protection class IP		IP20
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Resistance against vibration / according to IEC 60068-2-6		1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
Resistance against shock / according to IEC 60068-2-27		sinusoidal half-wave 15g / 11 ms
Installation altitude / at a height over sea level / maximum	m	2,000
Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4		2 kV
Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5		2 kV
Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5		1 kV
Electrostatic discharge / according to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling / according to IEC 61000-4-3		10 V/m
Insulation voltage / for overvoltage category III according to IEC 60664 / with degree of pollution 3 / rated value	V	300
Degree of pollution		3
Apparent power consumed		
<ul style="list-style-type: none"> • at 24 V / for AC / maximum 	V·A	2
<ul style="list-style-type: none"> • at 240 V / for AC / maximum 	V·A	4
Ambient temperature		
<ul style="list-style-type: none"> • during operating 	°C	-25 ... +60

• during storage	°C	-40 ... +80
• during transport	°C	-40 ... +80
Galvanic isolation		
• between entrance and outlet		Yes
• between the outputs		No
Mechanical design:		
Width	mm	22.5
Height	mm	92
Depth	mm	91
mounting position		any
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Type of mounting		screw and snap-on mounting
Product function / removable terminal for auxiliary and control circuit		Yes
Design of the electrical connection		screw-type terminals
Type of the connectable conductor cross-section		
• solid		1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
• finely stranded		
• with wire end processing		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• for AWG conductors		
• solid		2x (20 ... 14)
• stranded		2x (20 ... 14)
Tightening torque		

- with screw-type terminals

N·m 0.8 ... 1.2

Outputs:

Number of NO contacts / delayed switching		0
Number of NC contacts / delayed switching		0
Number of change-over switches / delayed switching		1
Current carrying capacity / of output relay		
• at AC-15		
• at 250 V / at 50/60 Hz	A	3
• at 400 V / at 50/60 Hz	A	3
• at DC-13		
• at 24 V	A	1
• at 125 V	A	0.2
• at 250 V	A	0.1
Operating current / at 17 V / minimum	mA	5
Continuous current / of the DIAZED fuse link of the output relay	A	4
Mechanical operating cycles as operating time / typical		10,000,000
Electrical operating cycles as operating time / at AC-15 / at 230 V / typical		100,000
Operating cycles / with 3RT2 contactor / maximum	1/h	5,000

Certificates/approvals:

General Product Approval



CCC



GOST



UL



C-TICK

EMC

Test Certificates

[Special Test Certificate](#)

Shipping Approval



DNV



GL



LRS

other

[Declaration of Conformity](#)

[other](#)

Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

Cax online generator:

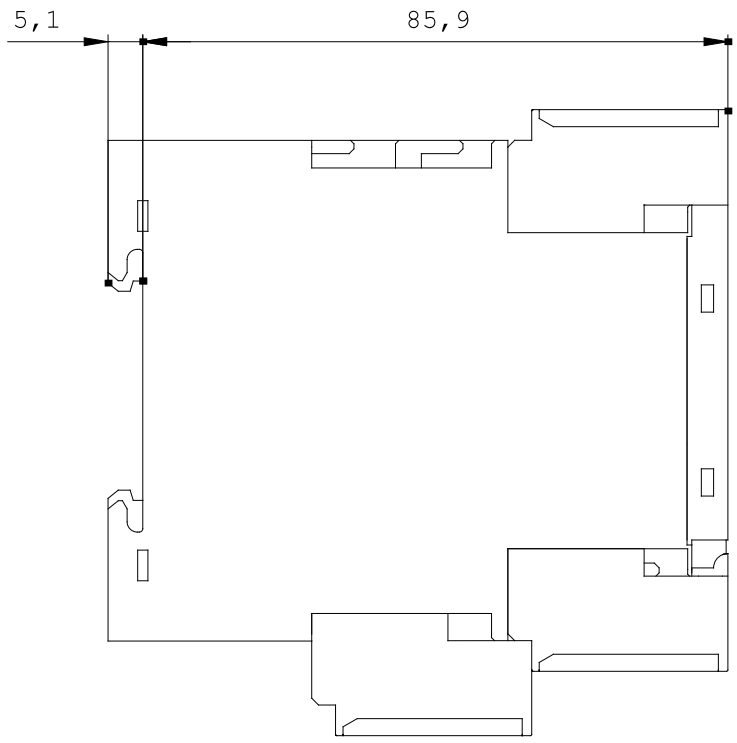
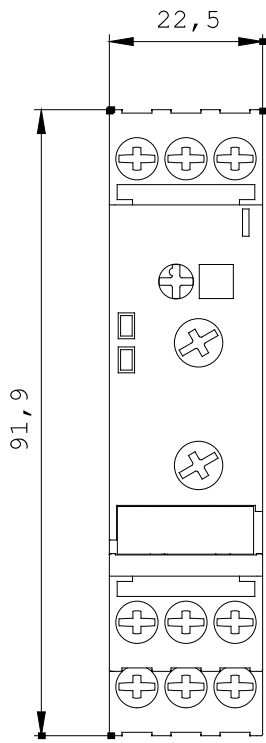
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3UG4501-1AW30/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3UG4501-1AW30



last change:

Feb 18,
2013