## **SIEMENS**

Data sheet 3UG4621-2AA30



DIGITAL MONITORING RELAY CURRENT MONITORING, 22.5MM FROM 2 TO 500MA AC/DC OVERSHOOT AND UNDERSHOOT SUPPLY VOLTAGE: AC/DC 24V DC AND AC 50 TO 60 HZ NO GALVANIC ISOLATION FROM MEASURING CIRCUIT STARTUP AND INTERF. PEAK DELAY 0.1 TO 20S HYSTERESIS 0.1 TO 250MA 1 CO CONTACT W. OR W/O ERROR LOG AUTOM. RESET SPRING-LOADED CONNECTION

Product function		Current monitoring relay
Measuring circuit:		
Number of poles for main current circuit		1
Type of current for monitoring		AC/DC
Measurable current	Α	0.003 0.6
Measurable current at AC	mA	3 600
Measurable line frequency	Hz	40 500
Adjustable pick-up value current		
• 1	Α	0.003 0.5
• 2	Α	0.003 0.5
Adjustable response delay time		
<ul><li>when starting</li></ul>	s	0.1 20
<ul> <li>with lower or upper limit violation</li> </ul>	s	0.1 20
Adjustable switching hysteresis for measured current value	mA	0.1 250
Buffering time in the event of power failure minimum	ms	10
Operating voltage rated value	V	24 24
Response time maximum	ms	450
Relative metering precision	%	5

Accuracy of digital display		+/-1 digit
Relative temperature-related measurement deviation	%	5
Temperature drift per °C	%/°C	0.1
Relative repeat accuracy	%	1

•		
General technical data:		
Design of the display		LCD
Product function		
<ul> <li>Overcurrent detection 1 phase</li> </ul>		Yes
<ul> <li>Overcurrent detection 3 phase</li> </ul>		No
<ul> <li>undercurrent detection 1 phase</li> </ul>		Yes
<ul> <li>undercurrent detection 3 phases</li> </ul>		No
Overcurrent detection DC		Yes
<ul> <li>undercurrent detection DC</li> </ul>		Yes
<ul> <li>Current window recognition DC</li> </ul>		Yes
External reset		Yes
Auto-reset		Yes
Adjustable open/closed-circuit current principle		Yes
Starting time after the control supply voltage has	ms	1 000
been applied		
Type of voltage of the supply voltage		AC/DC
Supply voltage		
• 1 at AC		
— at 50 Hz rated value	V	24
— at 60 Hz rated value	V	24
• 1		
— at DC rated value	V	24
Surge voltage resistance rated value	kV	4
Consumed active power	W	2
Protection class IP		IP20
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Vibration resistance acc. to IEC 60068-2-6		1 6 Hz: 15 mm, 6 500 Hz: 2g
Shock resistance acc. to IEC 60068-2-27		sinusoidal half-wave 15g / 11 ms
Installation altitude at height above sea level maximum	m	2 000
Conducted interference due to burst acc. to IEC 61000-4-4		2 kV
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		2 kV
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		1 kV
Electrostatic discharge acc. to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling acc. to IEC 61000-4-3		10 V/m

maximum permissible voltage for safe isolation  • between control and auxiliary circuit  • between auxiliary and auxiliary circuit  • between auxiliary and auxiliary circuit  • between auxiliary and auxiliary circuit  V 300   Degree of pollution  Ambient temperature  • during operation  • during storage  • during transport  C -40 +85  • during transport  O C -40 +85  Galvanic isolation  • between entrance and outlet  • between the outputs  • between the voltage supply and other circuits  Vidth  mm 94  Width  mm 94  Depth  Mounting position  Required spacing for grounded parts  • forwards  • at the side  • upwards  • downwards  Required spacing with side-by-side mounting  • forwards  • Backwards  mm 0  Required spacing with side-by-side mounting  • forwards  • Backwards  mm 0  Required spacing with side-by-side mounting  • forwards  • Backwards  mm 0  Required spacing with side-by-side mounting  • forwards  • Backwards  mm 0  Required spacing with side-by-side mounting  • forwards  • Backwards  mm 0  Required spacing with side-by-side mounting  • forwards  • Backwards  mm 0  Required spacing with side-by-side mounting  • forwards  mm 0  Required spacing with side-by-side mounting  • forwards  mm 0
between auxiliary and auxiliary circuit  Degree of pollution  Ambient temperature      during operation     during storage     during transport  Calvanic isolation      between entrance and outlet     between the outputs     between the voltage supply and other circuits  Ves  Width  Height  Depth  mm  Pequired spacing for grounded parts  forwards  at the side     upwards     downwards  Required spacing with side-by-side mounting     forwards  Required spacing with side-by-side mounting     forwards  Required spacing with side-by-side mounting     forwards  mm  O  3  Ambient  Calvanic and auxiliary circuits  Calvani
Degree of pollution  Ambient temperature  • during operation • during storage • during transport  Calvanic isolation • between entrance and outlet • between the outputs • between the voltage supply and other circuits  Mother than 100 mm 94  Pepth mm 91  Mounting position  Required spacing for grounded parts • forwards • at the side • upwards • downwards  Required spacing with side-by-side mounting • forwards • forw
Ambient temperature  • during operation • during storage • during transport  Calvanic isolation • between entrance and outlet • between the outputs • between the voltage supply and other circuits  Mochanical data:  Width  mm  22.5  Height  Depth  mm  94  Depth  Mounting position  Required spacing for grounded parts • forwards • at the side • upwards • downwards  Required spacing with side-by-side mounting • forwards • forwards • downwards  Required spacing with side-by-side mounting • forwards • forwards • mm  0  Required spacing with side-by-side mounting • forwards • mm  0  Required spacing with side-by-side mounting • forwards • mm  0  mm  0  mm  0
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>C -40 +85</li> <li>during transport</li> <li>C -40 +85</li> </ul> Galvanic isolation <ul> <li>between entrance and outlet</li> <li>between the outputs</li> <li>between the voltage supply and other circuits</li> <li>between the voltage supply and other circuits</li> </ul> Width <ul> <li>mm</li> <li>94</li> </ul> Depth <ul> <li>mm</li> <li>91</li> </ul> Mounting position <ul> <li>Required spacing for grounded parts</li> <li>forwards</li> <li>any</li> </ul> Backwards <ul> <li>ant the side</li> <li>anm</li> <li>at the side</li> <li>upwards</li> <li>downwards</li> <li>e downwards</li> <li>mm</li> <li>forwards</li> <li>mm</li> <li>o</li> </ul> Required spacing with side-by-side mounting <ul> <li>forwards</li> <li>mm</li> <li>0</li> </ul> Required spacing with side-by-side mounting <ul> <li>forwards</li> <li>mm</li> <li>0</li> </ul> Required spacing with side-by-side mounting <ul> <li>forwards</li> <li>mm</li> <li>0</li> </ul> Required spacing with side-by-side mounting <ul> <li>forwards</li> <li>mm</li> <li>0</li> </ul>
during storage     during transport     C
<ul> <li>during transport</li> <li>C -40 +85</li> <li>Galvanic isolation <ul> <li>between entrance and outlet</li> <li>between the outputs</li> <li>between the voltage supply and other circuits</li> <li>No</li> </ul> </li> <li>Mechanical data:  <ul> <li>Width</li> <li>mm</li> <li>p4</li> </ul> </li> <li>Depth</li> <li>mm</li> <li>p1</li> <li>Mounting position</li> <li>Required spacing for grounded parts <ul> <li>forwards</li> <li>at the side</li> <li>upwards</li> <li>downwards</li> <li>e downwards</li> <li>mm</li> <li>o downwards</li> <li>Required spacing with side-by-side mounting</li> <li>forwards</li> <li>mm</li> <li>o</li> </ul> </li> <li>Required spacing with side-by-side mounting</li> <li>forwards</li> <li>mm</li> <li>o</li> </ul>
Galvanic isolation  • between entrance and outlet  • between the outputs • between the voltage supply and other circuits  Mechanical data:  Width  mm  22.5  Height  mm  94  Depth  Mounting position  Required spacing for grounded parts  • forwards • at the side • upwards • downwards  Required spacing with side-by-side mounting • forwards  • forwards  mm  0  Required spacing with side-by-side mounting • forwards  mm  0  Required spacing with side-by-side mounting • forwards  mm  0
between entrance and outlet     between the outputs     between the voltage supply and other circuits  Mechanical data:  Width
between the outputs     between the voltage supply and other circuits  Mechanical data:  Width
between the voltage supply and other circuits    Mechanical data:
Width mm 22.5 Height mm 94 Depth mm 91 Mounting position any Required spacing for grounded parts  • forwards mm 0 • at the side mm 0 • upwards mm 0 • downwards mm 0 Required spacing with side-by-side mounting • forwards mm 0
Width mm 22.5   Height mm 94   Depth mm 91   Mounting position any   Required spacing for grounded parts mm 0   • forwards mm 0   • Backwards mm 0   • at the side mm 0   • upwards mm 0   • downwards mm 0   Required spacing with side-by-side mounting • forwards mm 0
Height mm 94  Depth mm 91  Mounting position any  Required spacing for grounded parts  • forwards mm 0  • Backwards mm 0  • at the side mm 0  • upwards mm 0  • downwards mm 0  Required spacing with side-by-side mounting  • forwards mm 0
Depth mm 91  Mounting position any  Required spacing for grounded parts  • forwards mm 0  • Backwards mm 0  • at the side mm 0  • upwards mm 0  • downwards mm 0  Required spacing with side-by-side mounting  • forwards mm 0
Mounting position     any       Required spacing for grounded parts     mm     0       • forwards     mm     0       • Backwards     mm     0       • at the side     mm     0       • upwards     mm     0       • downwards     mm     0       Required spacing with side-by-side mounting     mm     0       • forwards     mm     0
Required spacing for grounded parts  • forwards  • Backwards  • at the side  • upwards  • downwards  Required spacing with side-by-side mounting  • forwards  • forwards  mm  0  Required spacing with side-by-side mounting  • forwards  mm  0
<ul> <li>forwards</li> <li>Backwards</li> <li>at the side</li> <li>upwards</li> <li>downwards</li> <li>downwards</li> <li>forwards</li> <li>mm</li> <li>0</li> <li>0</li> </ul> Required spacing with side-by-side mounting <ul> <li>forwards</li> <li>mm</li> <li>0</li> </ul>
<ul> <li>Backwards</li> <li>at the side</li> <li>upwards</li> <li>downwards</li> <li>forwards</li> <li>mm</li> <li>mm</li> <li>mm</li> <li>0</li> <li>downwards</li> <li>mm</li> <li>0</li> </ul> Required spacing with side-by-side mounting <ul> <li>forwards</li> <li>mm</li> <li>0</li> </ul>
<ul> <li>at the side</li> <li>upwards</li> <li>downwards</li> <li>downwards</li> <li>mm</li> <li>0</li> <li>downwards</li> <li>mm</li> <li>0</li> </ul> Required spacing with side-by-side mounting <ul> <li>forwards</li> <li>mm</li> <li>0</li> </ul>
<ul> <li>upwards</li> <li>downwards</li> <li>downwards</li> <li>mm</li> <li>0</li> <li>Required spacing with side-by-side mounting</li> <li>forwards</li> <li>mm</li> <li>0</li> </ul>
<ul> <li>downwards</li> <li>Required spacing with side-by-side mounting</li> <li>forwards</li> <li>mm</li> <li>0</li> </ul>
Required spacing with side-by-side mounting  • forwards
• forwards mm 0
• Backwards mm 0
• at the side mm 0
• upwards mm 0
• downwards mm 0
Required spacing for live parts
• forwards mm 0
• Backwards mm 0
• at the side mm 0
• upwards mm 0
• downwards mm 0
Mounting type snap-on mounting
Type of electrical connection
• for auxiliary and control current circuit spring-loaded terminals
• for main current circuit spring-loaded terminals

Product function	
<ul> <li>removable terminal for auxiliary and control</li> </ul>	Yes
circuit	
<ul> <li>removable terminal for main circuit</li> </ul>	Yes
Type of connectable conductor cross-sections	
• solid	2x (0.25 1.5 mm²)
• finely stranded	
— with core end processing	2 x (0.25 1.5 mm²)
<ul> <li>without core end processing</li> </ul>	2x (0.25 1.5 mm²)
• at AWG conductors	
— solid	2x (24 16)
— stranded	2x (24 16)

Outputs:		
Number of NO contacts delayed switching		0
Number of NC contacts delayed switching		0
Number of CO contacts delayed switching		1
Ampacity		
<ul><li>• of the output relay</li></ul>		
— at AC-15		
— at 250 V at 50/60 Hz	Α	3
— at 400 V at 50/60 Hz	Α	3
— at DC-13		
— at 24 V	Α	1
— at 125 V	Α	0.2
— at 250 V	Α	0.1
• for permanent overcurrent maximum	Α	0.6
permissible		_
<ul> <li>for overcurrent duration &lt; 1 s maximum permissible</li> </ul>	Α	5
Operating current at 17 V minimum	A	0.005
Continuous current of the DIAZED fuse link of the	A	4
output relay	^	4
Thermal current of the switching element with	Α	5
contacts maximum		
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at		100 000
230 V typical	4 //	5.000
Operating frequency with 3RT2 contactor maximum	1/h	5 000

Certificates/ approvals:

General Product Approval EMC Declaration of Conformity Certificates











<u>spezielle</u> <u>Prüfbescheinigunge</u> <u>n</u>

Test	Shipping	other	Railway
Certificates	Approval		
Typprüfbescheinigu ng/Werkszeugnis	Lloyd's Register	Bestätigungen	Schwingen/Schocke n
	LRS		

## **Further information**

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

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

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

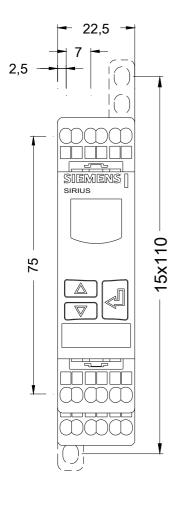
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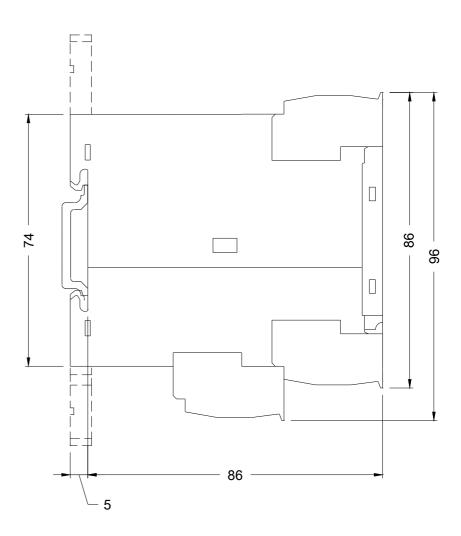
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3UG4621-2AA30}$ 

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

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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3UG4621-2AA30&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3UG4621-2AA30&lang=en</a>





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