SIEMENS

Data sheet 3UG4631-1AA30

DIGITAL MONITORING RELAY VOLTAGE MONITORING, 22.5MM FROM 0.1 TO 60V AC/DC OVERSHOOT AND UNDERSHOOT SUPPLY VOLTAGE: AC/DC 24V DC AND AC 50 TO 60 HZ NO GALVANIC ISOLATION FROM MEASURING CIRCUIT INTERF. PEAK DELAY 0.1 TO 20S HYSTERESIS 0.01 TO 30V 1 CO CONTACT W. OR W/O ERROR LOG SCREW TERMINAL REPLACEMENT PRODUCT FOR 3UG3531-1AC..

Product function		Voltage monitoring relay

Measuring circuit:

Type of voltage for monitoring		AC/DC
Number of poles for main current circuit		1
Measurable line frequency	Hz	500 ... 40
Measurable voltage with AC	V	0.1 ... 60
Adjustable voltage range	V	0.1 ... 60
Adjustable response delay time		
• with lower or upper limit violation	s	0.1 ... 20
Response time maximum	ms	450
Relative metering precision	%	5
Accuracy of digital display		+/-1 digit
Relative temperature-related measurement deviation	%	0.1
Relative repeat accuracy	%	1

General technical data:

Design of the display		LCD
Product function		
• Voltage window recognition 1 phase		Yes
• Voltage window recognition 3 phase		No
• Voltage window recognition DC		Yes
• Overvoltage detection 1 phase		Yes
• Overvoltage detection 3 phase		No
• Overvoltage detection DC		Yes
• undervoltage detection 1 phase		Yes
• undervoltage detection 3 phases		No

• undervoltage detection DC		Yes
• External reset		Yes
• Auto-reset		Yes
• Adjustable open/closed-circuit current principle		Yes
Startup time after the control supply voltage has been applied	ms	1 000
Type of voltage of the control supply voltage		AC/DC
Control supply voltage		
• with AC		
— at 50 Hz Rated value	V	24 ... 24
— at 60 Hz Rated value	V	24 ... 24
• for DC Rated value	V	24 ... 24
Operating range factor control supply voltage rated value		
• with AC		
— at 50 Hz		0.85 ... 1.15
— at 60 Hz		0.85 ... 1.15
• for DC		0.85 ... 1.15
Surge voltage resistance Rated value	kV	4
Active power consumption	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
maximum permissible voltage for safe isolation		
• between control and auxiliary circuit	V	300
• between auxiliary and auxiliary circuit	V	300
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
Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 Rated value	V	690
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-40 ... +85
• during transport	°C	-40 ... +85

Design of the electrical isolation		Safe isolation
Galvanic isolation		
• between entrance and outlet		Yes
• between the outputs		Yes
• between the voltage supply and other circuits		No
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at 230 V typical		100 000
Operating frequency with 3RT2 contactor maximum	1/h	5 000

Mechanical data:		
Width	mm	22.5
Height	mm	92
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
• 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
Mounting type		snap-on mounting
Product function removable terminal for auxiliary and control circuit		Yes
Type of electrical connection		screw-type terminals
Type of connectable conductor cross-section		
• 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 conductors		
— solid		2x (20 ... 14)
— stranded		2x (20 ... 14)

Tightening torque with screw-type terminals	N·m	1.2 ... 0.8

Outputs:

Number of NO contacts delayed switching		0
Number of NC contacts delayed switching		0
Number of CO contacts delayed switching		1
Operating current at 17 V minimum	mA	5
Continuous current of the DIAZED fuse link of the output relay	A	4
Thermal current of the switching element with contacts maximum	A	5

Certificates/ approvals:

General Product Approval			EMC	Test Certificates	
CCC		UL	C-TICK	Special Test Certificate	Type Test Certificates/Test Report

Shipping Approval			other	
DNV	GL	LRS	other	Declaration of Conformity

Further information

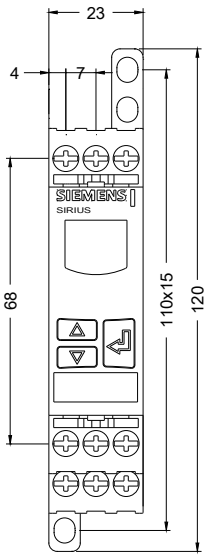
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

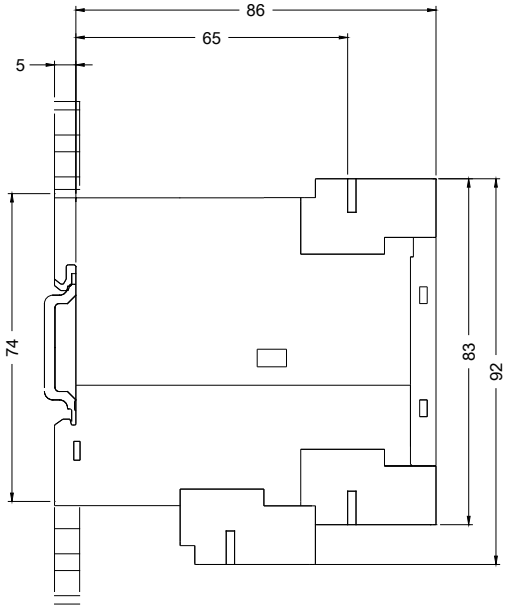
Industry Mall (Online ordering system)
http://www.siemens.com/industrymall

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG46311AA30

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UG46311AA30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG46311AA30&lang=en





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