

Digital monitoring relay Voltage monitoring, 22.5 mm for IO-Link
 10...600 V AC/DC Overvoltage and undervoltage Hysteresis 0.1 to
 300 V ON-delay time Tripping delay time 1 change-over contact,
 screw terminal



Product brand name	SIRIUS
Product designation	Voltage monitoring relay with digital setting
Product type designation	3UG4

General technical data	
Product function	Voltage monitoring relay
Design of the display	LCD
Degree of pollution	2
Type of voltage	
• for monitoring	AC/DC
• of the control supply voltage	DC
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• between control and auxiliary circuit	690 V
Protection class IP	IP20
Shock resistance	
• acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
Mechanical service life (switching cycles)	
• typical	10 000 001
Electrical endurance (switching cycles)	

• at AC-15 at 230 V typical	100 000
Thermal current of the switching element with contacts maximum	5 A
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code acc. to DIN EN 81346-2	K
Reference code acc. to DIN EN 61346-2	K
Relative repeat accuracy	1 %

Product Function

Product function	
• undervoltage detection	Yes
• Overvoltage detection	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
• Voltage window recognition 1 phase	Yes
• Voltage window recognition 3 phase	No
• Voltage window recognition DC	Yes
• Adjustable open/closed-circuit current principle	Yes
• External reset	Yes
• Auto-reset	Yes

Control circuit/ Control

Control supply voltage at DC	
• rated value	18 ... 30 V
Operating range factor control supply voltage rated value at DC	
• initial value	0.75
• Full-scale value	1.25

Measuring circuit

Measurable line frequency	500 ... 40 Hz
Measurable voltage at DC	10 ... 600
Adjustable response delay time	
• when starting	0 ... 999.9 s
• with lower or upper limit violation	0 ... 999.9 s
Accuracy of digital display	+/-1 digit
Relative temperature-related measurement deviation	0.1 %

Precision

Relative metering precision	5 %
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Communication/ Protocol	
Protocol is supported	Yes
<ul style="list-style-type: none"> • IO-Link protocol 	Yes
IO-Link transfer rate	COM2 (38,4 kBaud)
Point-to-point cycle time between master and IO-Link device minimum	10 ms
Type of voltage supply via input/output link master	Yes
Amount of data	
<ul style="list-style-type: none"> • of the address area of the inputs with cyclical transfer total 	4 byte
<ul style="list-style-type: none"> • of the address area of the outputs with cyclical transfer total 	2 byte
Auxiliary circuit	
Number of CO contacts	1
<ul style="list-style-type: none"> • delayed switching 	1
Operating frequency with 3RT2 contactor maximum	5 000 1/h
Main circuit	
Number of poles for main current circuit	1
Outputs	
Operating current at 17 V minimum	10 mA
Continuous current of the DIAZED fuse link of the output relay	4 A
Electromagnetic compatibility	
Conducted interference	
<ul style="list-style-type: none"> • due to burst acc. to IEC 61000-4-4 	2 kV
<ul style="list-style-type: none"> • due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • due to conductor-conductor surge acc. to IEC 61000-4-5 	1 kV
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m
Electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Galvanic isolation	
Design of the electrical isolation	Safe isolation
Galvanic isolation	
<ul style="list-style-type: none"> • between entrance and outlet 	Yes
<ul style="list-style-type: none"> • between the voltage supply and other circuits 	Yes
Connections/ Terminals	
Product function	Yes
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	Yes
Type of electrical connection	screw-type terminals

Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • at AWG conductors solid • at AWG conductors stranded 	<p>1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)</p> <p>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)</p> <p>2x (20 ... 14)</p> <p>2x (20 ... 14)</p>
Connectable conductor cross-section	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing 	<p>0.5 ... 4 mm²</p> <p>0.5 ... 2.5 mm²</p>
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid • stranded 	<p>20 ... 14</p> <p>20 ... 14</p>
Tightening torque	
<ul style="list-style-type: none"> • with screw-type terminals 	1.2 ... 0.8 N·m

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	snap-on mounting
Height	92 mm
Width	22.5 mm
Depth	91 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side 	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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CCC

[Manufacturer Declaration](#)



UL



RCM



EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping	other	Railway
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



[Confirmation](#)

[Vibration and Shock](#)

Further information

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

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3UG4832-1AA40>

Cax online generator

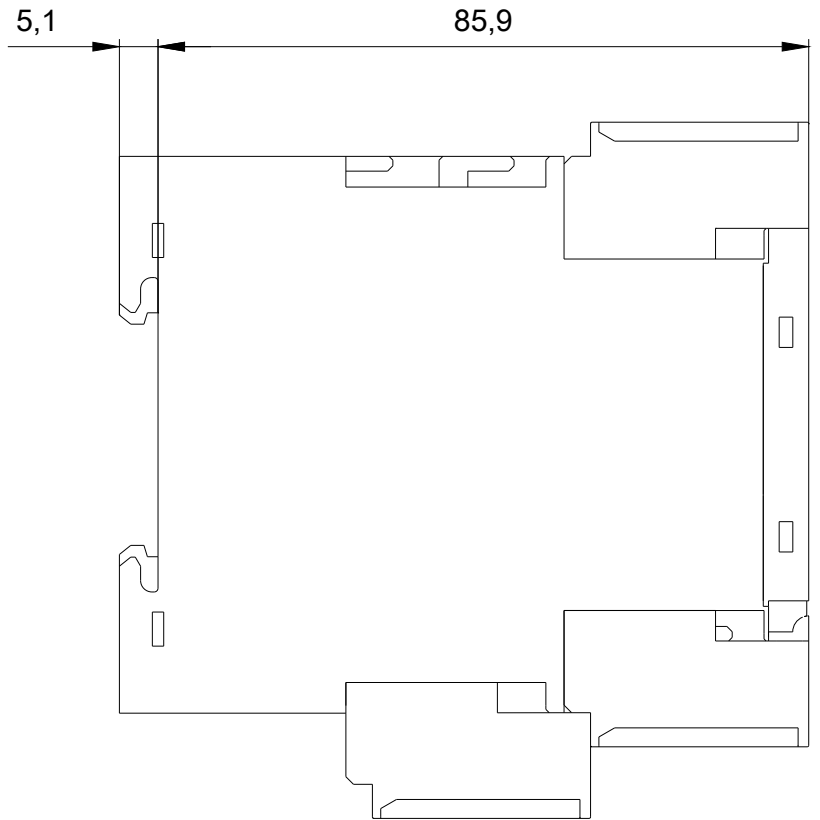
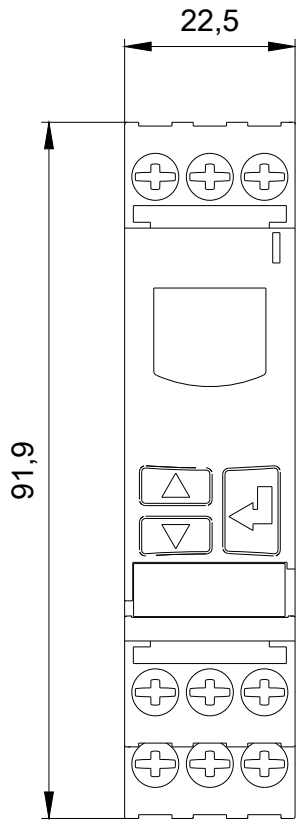
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UG4832-1AA40>

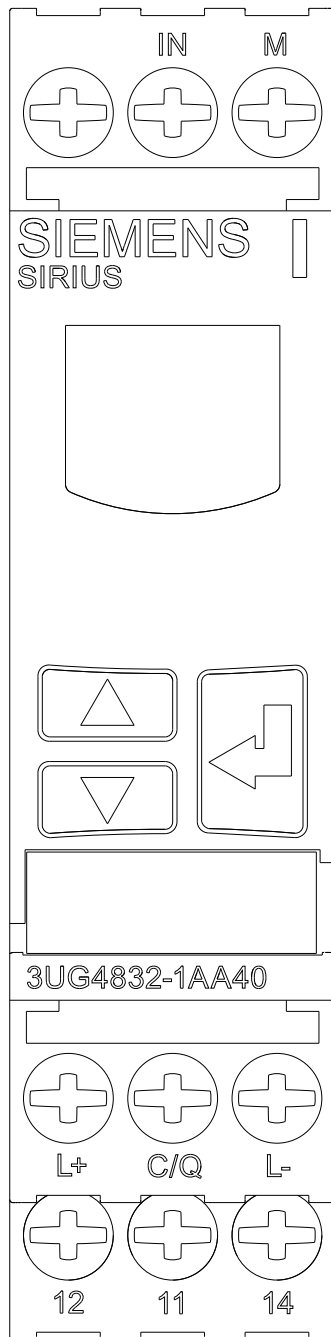
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

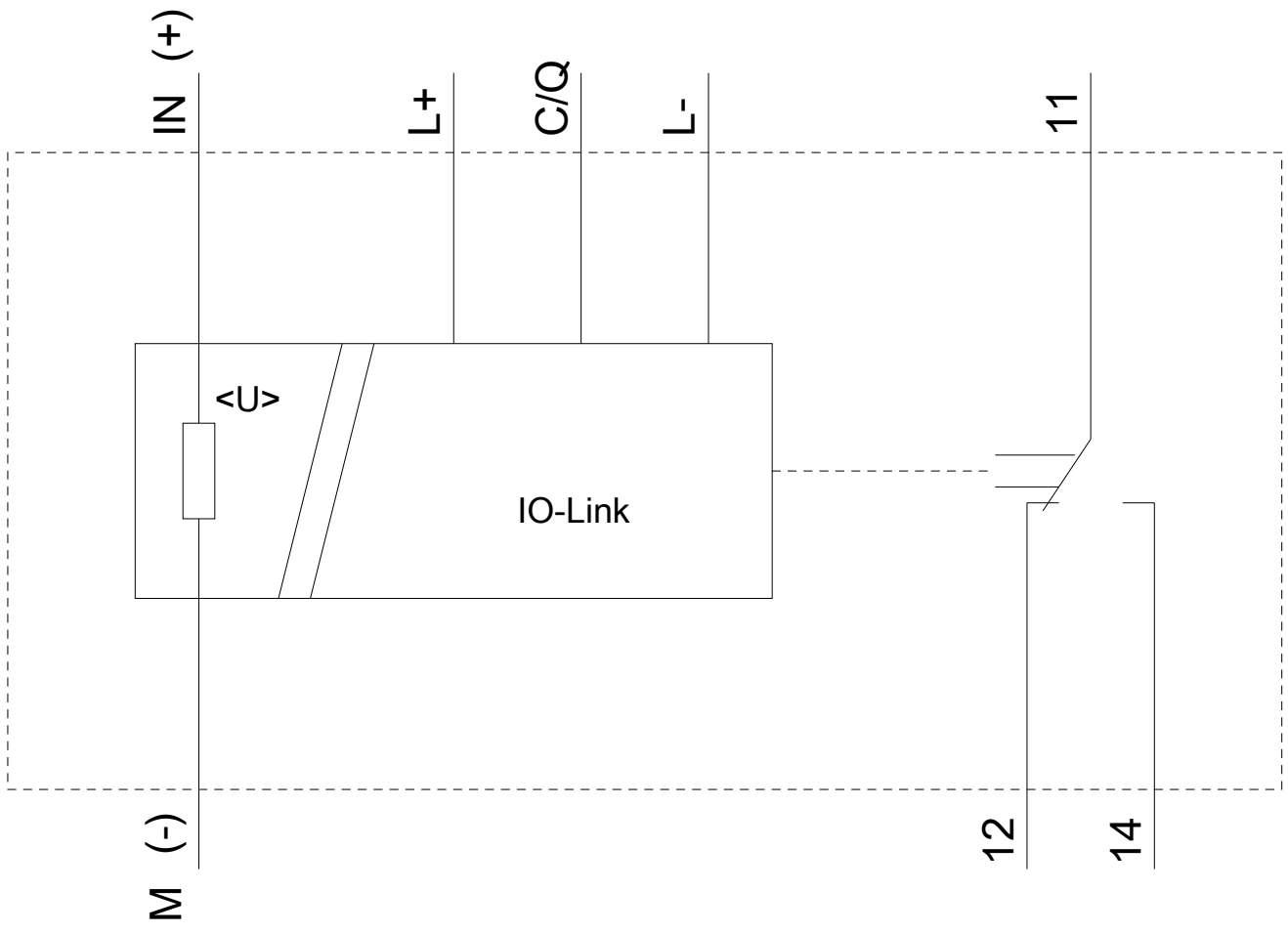
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4832-1AA40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UG4832-1AA40&lang=en







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