

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,
 spring-type connection system



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
<ul style="list-style-type: none"> — Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 2 rated value 	690 V
Degree of pollution	2
Type of voltage <ul style="list-style-type: none"> • for monitoring • of the control supply voltage 	AC/DC DC
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation <ul style="list-style-type: none"> • between control and auxiliary circuit • Protection class IP 	690 V IP20
Shock resistance	

• acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
Vibration resistance	
• acc. to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
Mechanical service life (switching cycles)	
• typical	10 000 002
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 EN 81346-2	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 V
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 %
Communication/ Protocol	
Protocol is supported	
• 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	
• of the address area of the inputs with cyclical transfer total	4 byte
• of the address area of the outputs with cyclical transfer total	2 byte
Auxiliary circuit	
Number of NC contacts	
• delayed switching	0
Number of NO contacts	
• delayed switching	0
Number of CO contacts	
• delayed switching	1
operating frequency with 3RT2 contactor maximum	5 000 1/h
Main circuit	
Number of poles for main current circuit	1
Outputs	
Ampacity of the semiconductor output in SIO mode	200 mA
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	
• due to burst acc. to IEC 61000-4-4	2 kV
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• 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	Protective separation

- Galvanic isolation between entrance and outlet
- Galvanic isolation between the voltage supply and other circuits

Yes
Yes

Connections/ Terminals

Product function	Yes
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	Yes
<ul style="list-style-type: none"> • type of electrical connection 	spring-loaded terminals
<ul style="list-style-type: none"> • type of connectable conductor cross-sections solid 	2x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • Type of connectable conductor cross-sections finely stranded with core end processing 	2 x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • Type of connectable conductor cross-sections finely stranded without core end processing 	2x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • Type of connectable conductor cross-sections at AWG conductors solid 	2x (24 ... 16)
<ul style="list-style-type: none"> • Type of connectable conductor cross-sections at AWG conductors stranded 	2x (24 ... 16)
<ul style="list-style-type: none"> • connectable conductor cross-section solid 	0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> • connectable conductor cross-section finely stranded with core end processing 	0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> • connectable conductor cross-section finely stranded without core end processing 	0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	24 ... 16
<ul style="list-style-type: none"> • stranded 	24 ... 16

Installation/ mounting/ dimensions

<ul style="list-style-type: none"> • mounting position 	any
Mounting type	snap-on mounting
Height	94 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 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 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
— 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	85 ... -40 °C
• during transport	85 ... -40 °C

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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[Manufacturer Declaration](#)



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

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



[Confirmation](#)

[Vibration and Shock](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)
<https://www.siemens.com/ic10>

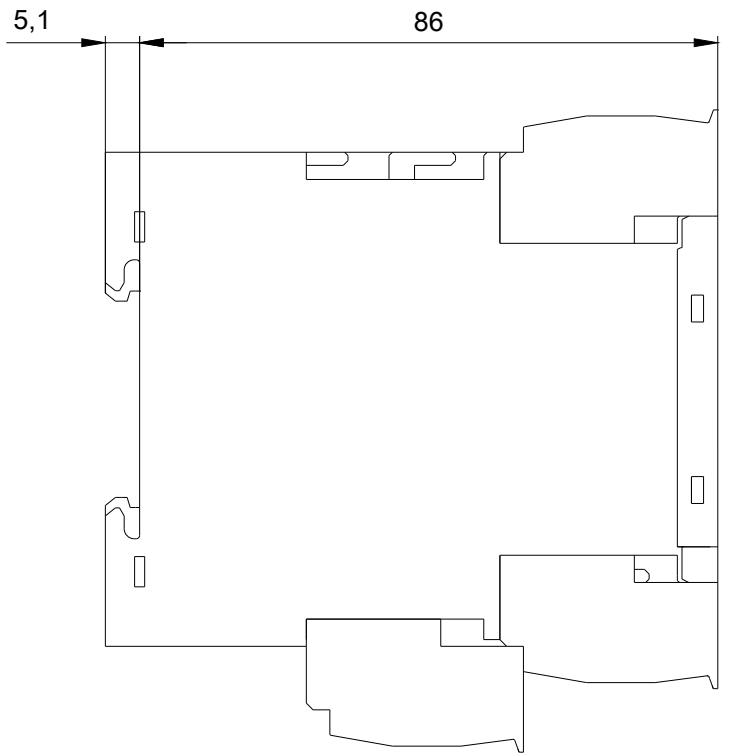
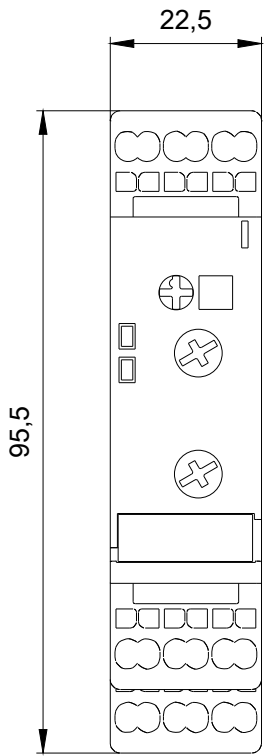
Industry Mall (Online ordering system)
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4832-2AA40>

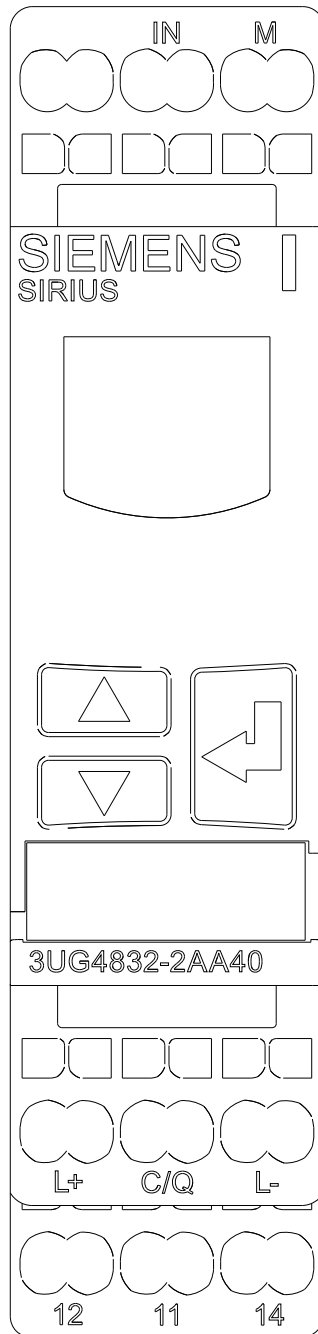
Cax online generator
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4832-2AA40>

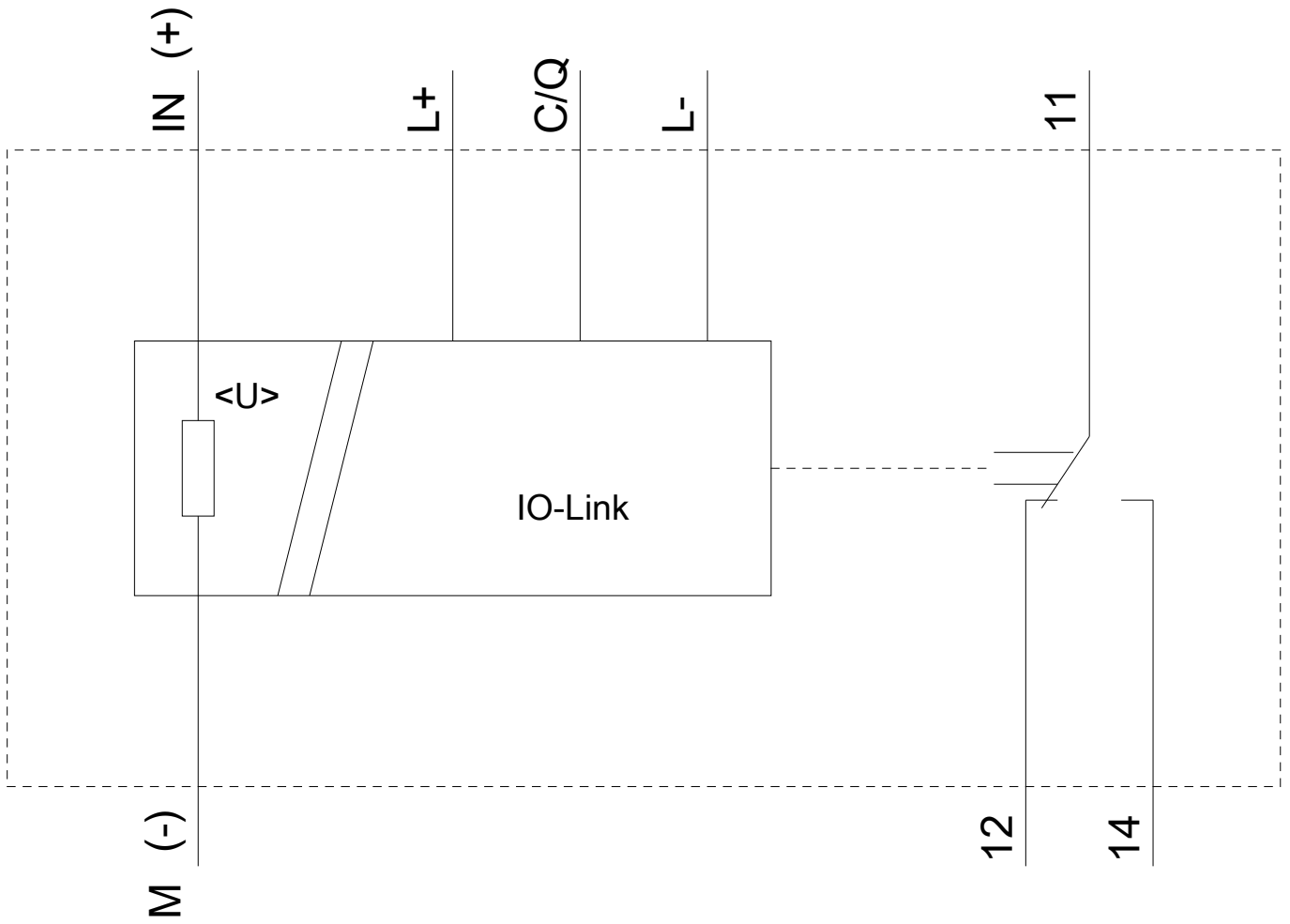
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4832-2AA40>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4832-2AA40&lang=en

Characteristic: Derating
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4832-2AA40/manual>







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