

Digital monitoring relay 3-phase supply voltage for IO-Link 50...60 Hz
 AC 3 x 160 to 690 V Phase sequence, Phase failure Phase
 asymmetry Undervoltage and overvoltage Hysteresis 1-20 V Line
 stabilization delay Tripping delay time 1 change-over contact, screw
 terminal



Product brand name	SIRIUS
Product designation	Network monitoring relay with digital setting
Design of the product	5 functions
Product type designation	3UG4

General technical data	
Product function	Phase monitoring relay
Display version LED	No
Design of the display	LCD
Degree of pollution	2
Type of voltage	
• for monitoring	AC
• of the control supply voltage	DC
Surge voltage resistance rated value	6 kV
Protection class IP	IP20
Shock resistance	
• acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
Mechanical service life (switching cycles)	
• typical	10 000 000
Electrical endurance (switching cycles)	

<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • undervoltage detection • Overvoltage detection • phase sequence recognition • Phase failure detection • Overvoltage detection 3 phase • undervoltage detection 3 phases • Voltage window recognition 3 phase • Adjustable open/closed-circuit current principle • External reset • Auto-reset 	<ul style="list-style-type: none"> Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes

Control circuit/ Control

Control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	<ul style="list-style-type: none"> 0 ... 0 V 0 ... 0 V
Control supply voltage at DC	
<ul style="list-style-type: none"> • rated value 	24 ... 24 V
Operating range factor control supply voltage rated value at DC	
<ul style="list-style-type: none"> • initial value • Full-scale value 	<ul style="list-style-type: none"> 1 1

Measuring circuit

Adjustable response delay time	
<ul style="list-style-type: none"> • when starting • with lower or upper limit violation 	<ul style="list-style-type: none"> 0 ... 999.9 s 0 ... 999.9 s
Accuracy of digital display	+/-1 digit

Precision

Relative metering precision	5 %
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Communication/ Protocol

Protocol is supported	
<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	
• 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 CO contacts	
• delayed switching	1
Operating frequency with 3RT2 contactor maximum	5 000 1/h

Main circuit

Number of poles for main current circuit	3
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Outputs

Ampacity of the output relay at AC-15	
• at 250 V at 50/60 Hz	3 A
• at 400 V at 50/60 Hz	3 A
Ampacity of the output relay at DC-13	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
Operating current at 17 V minimum	20 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

Galvanic isolation	
• between entrance and outlet	Yes
• between the voltage supply and other circuits	Yes

Connections/ Terminals

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

Installation/ mounting/ dimensions	
Mounting position	any
Mounting type	snap-on mounting
Height	102 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 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm
<ul style="list-style-type: none"> for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm
<ul style="list-style-type: none"> for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm

Ambient conditions

Installation altitude at height above sea level

- 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](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



DNVGL.COM/AF

[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=3UG4815-1AA40>

Cax online generator

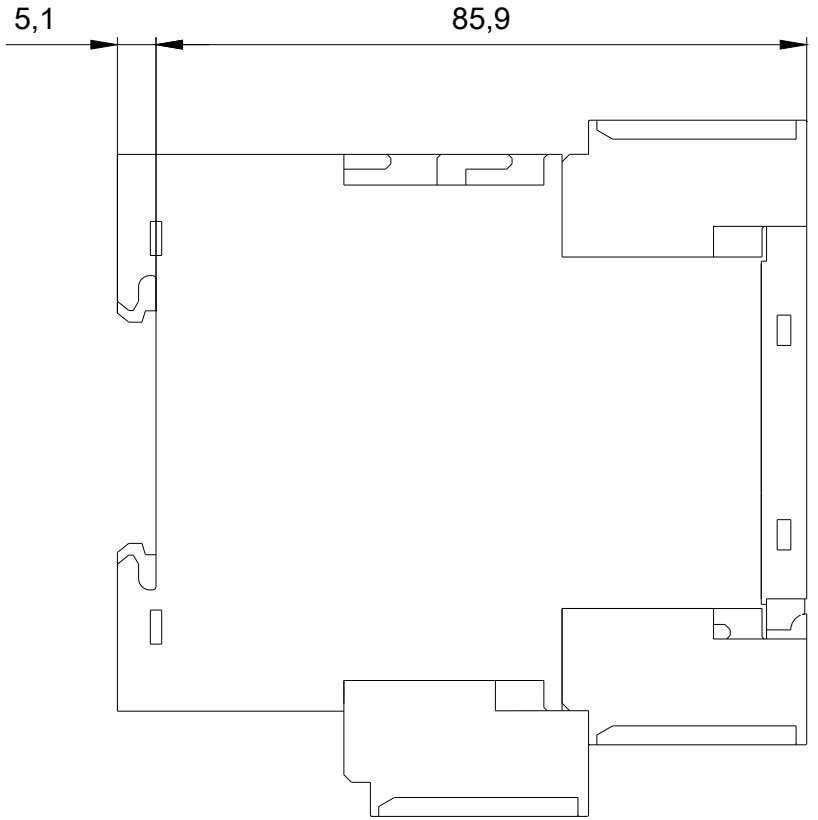
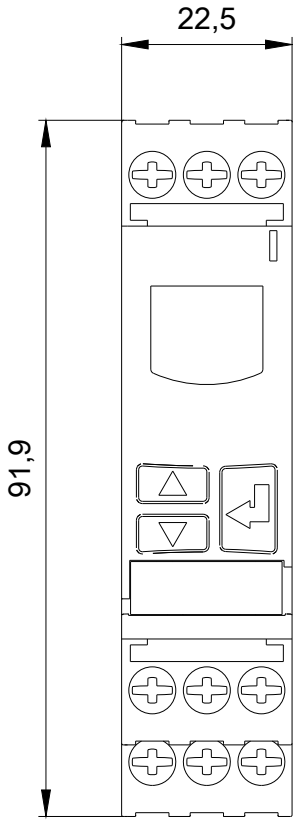
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UG4815-1AA40>

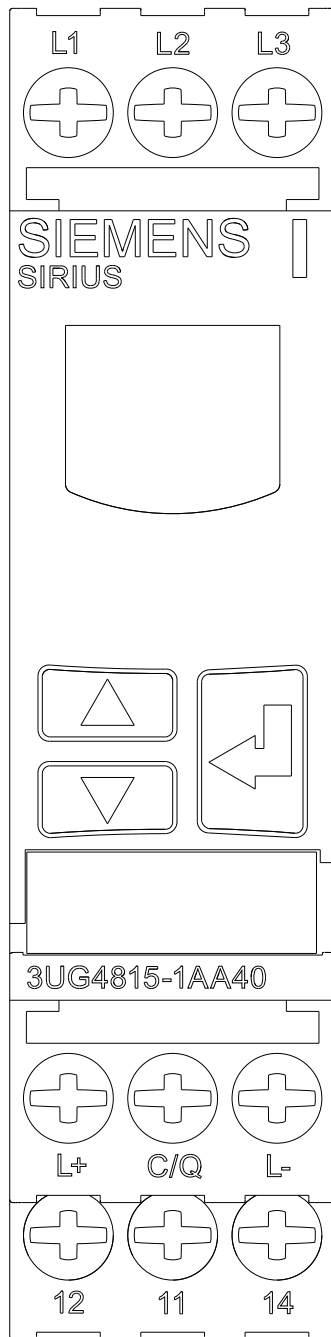
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

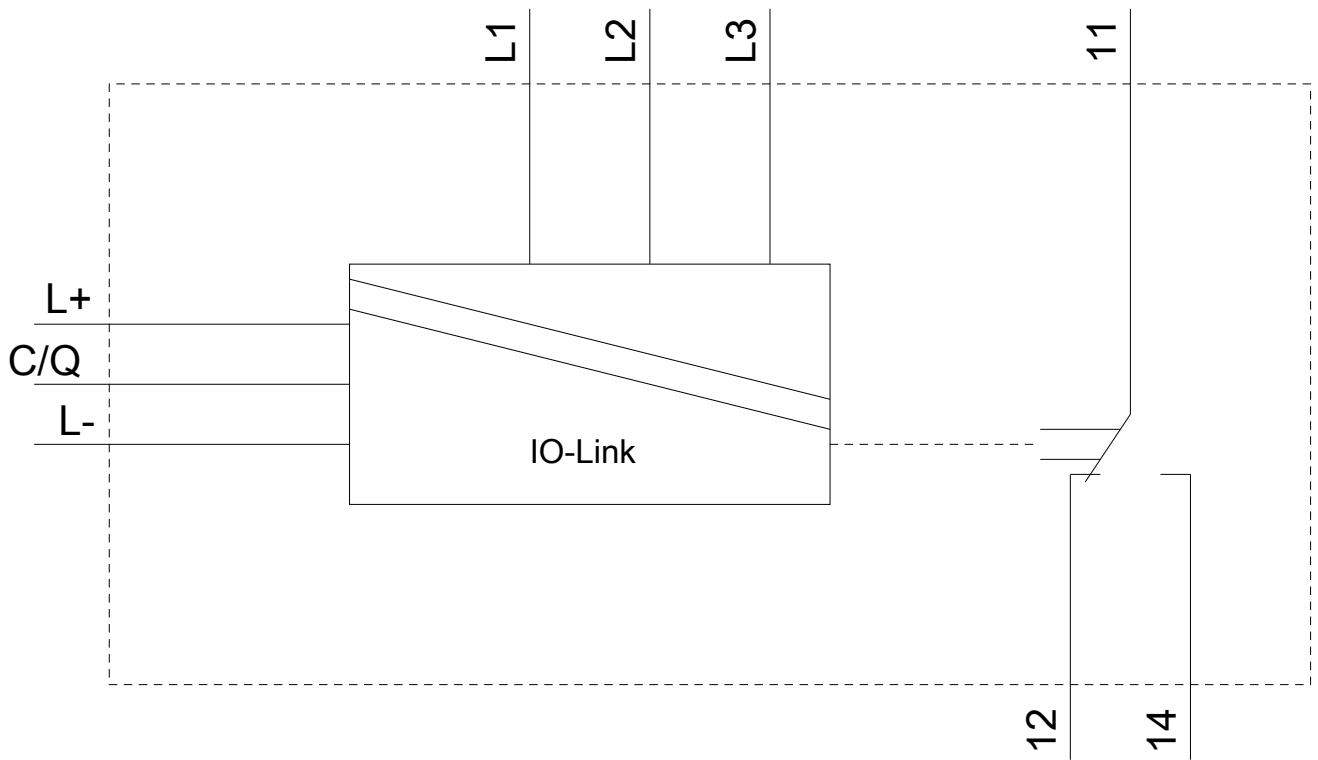
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4815-1AA40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UG4815-1AA40&lang=en







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