SIEMENS

Data sheet 3UG4815-2AA40

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, spring-type connection system

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)	

• 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
• phase sequence recognition	Yes
• Phase failure detection	Yes
• Overvoltage detection 3 phase	Yes
• undervoltage detection 3 phases	Yes
• Voltage window recognition 3 phase	Yes
• Adjustable open/closed-circuit current principle	Yes
• External reset	Yes
• Auto-reset	Yes

Control circuit/ Control

Control supply voltage at AC	
• at 50 Hz rated value	0 ... 0 V
• at 60 Hz rated value	0 ... 0 V
Control supply voltage at DC	
• rated value	24 ... 24 V
Operating range factor control supply voltage rated value at DC	
• initial value	1
• Full-scale value	1

Measuring circuit

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

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 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

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	

• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	spring-loaded terminals
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)
• finely stranded without core end processing	2x (0.25 ... 1.5 mm²)
• at AWG conductors solid	2x (24 ... 16)
• at AWG conductors stranded	2x (24 ... 16)
Connectable conductor cross-section	
• solid	0.25 ... 1.5 mm²
• finely stranded with core end processing	0.25 ... 1.5 mm²
• finely stranded without core end processing	0.25 ... 1.5 mm²
AWG number as coded connectable conductor cross section	
• solid	24 ... 16
• stranded	24 ... 16

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	snap-on mounting
Height	103 mm
Width	22.5 mm
Depth	91 mm
Required spacing	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	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
— downwards	0 mm
— at the side	0 mm

Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m

Certificates/ approvals

General Product Approval				EMC	Declaration of Conformity
CCC	Manufacturer Declaration	UL	EAC	RCM	EG-Konf.

Declaration of Conformity	Test Certificates		Marine / Shipping	other	Railway
Miscellaneous	Special Test Certificate	Type Test Certificates/Test Report	TYPE APPROVED PRODUCT DNV·GL DNVGL.COM/AF	Confirmation	Vibration and Shock

Further information

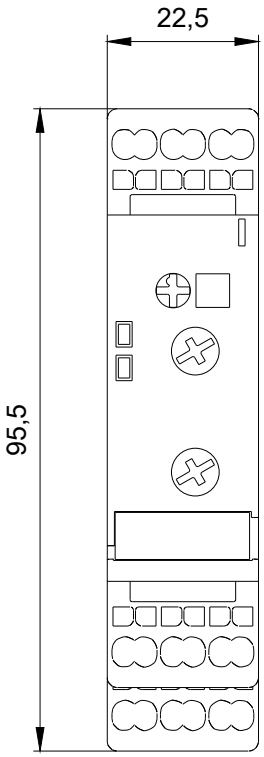
Information- and Downloadcenter (Catalogs, Brochures,…)
www.siemens.com/sirius/catalogs

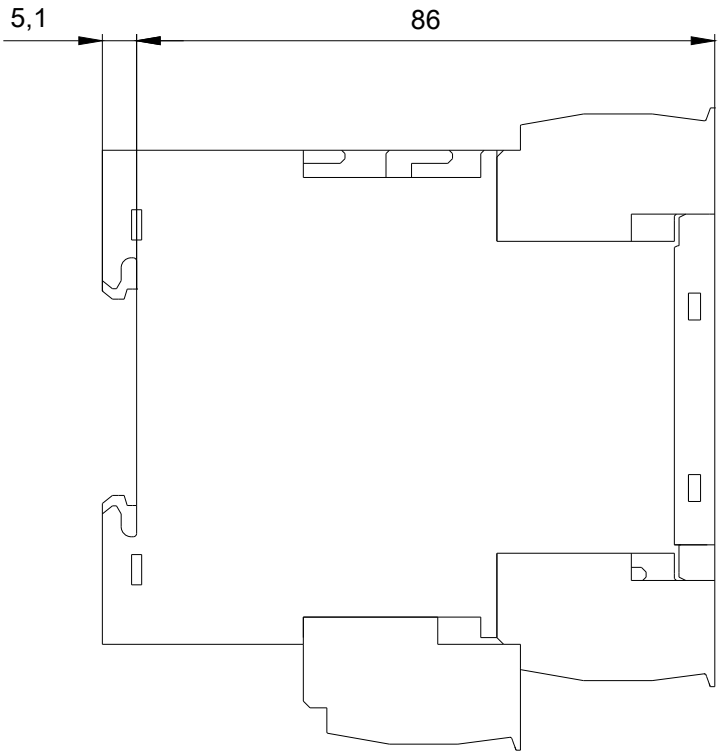
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4815-2AA40

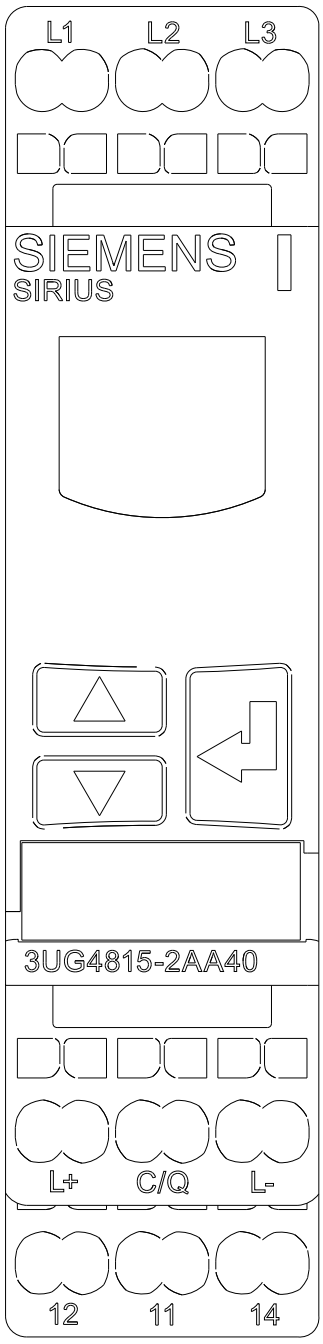
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4815-2AA40

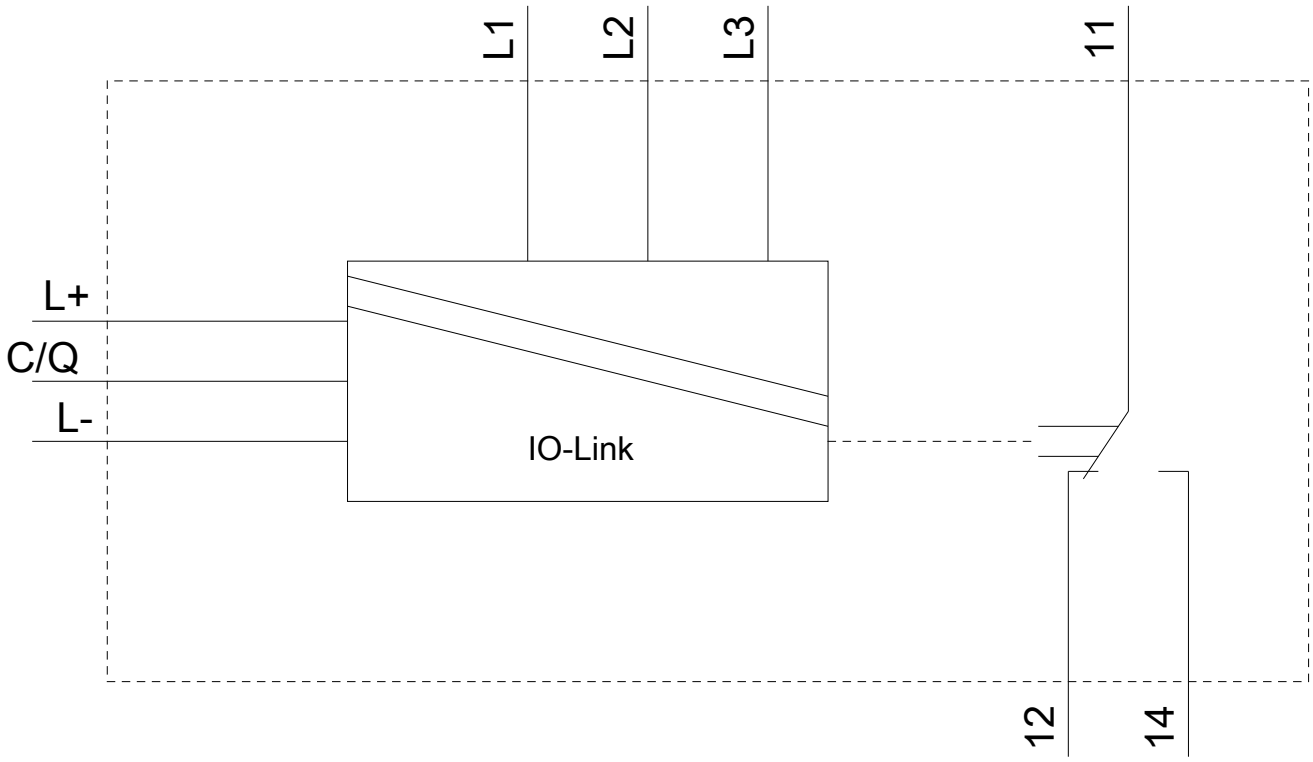
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UG4815-2AA40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4815-2AA40&lang=en









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