SIEMENS

Data sheet 3UG4815-1AA40



!!! product phase-out !!! The preferred successor type is 3UG5816-1AA40 line monitoring IO-Link 3x160-690 V digital monitoring relay for 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 changeover 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
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	
● for monitoring	AC
● of the control supply voltage	DC
surge voltage resistance rated value	6 kV
protection class IP	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance according to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
thermal current of the switching element with contacts maximum	5 A
reference code according to IEC 81346-2	K
relative repeat accuracy	1 %
Substance Prohibitance (Date)	05/01/2012
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	0.142 kg
Product Function	
product function	
● undervoltage detection	Yes
● overvoltage detection	Yes
● phase sequence recognition	Yes
● phase failure detection	Yes
● asymmetry 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

Subject to change without notice
© Copyright Siemens

● 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
Measuring circuit	
measurable voltage at AC	160 ... 690 V
adjustable response delay time	
● when starting	0 ... 999.9 s
● with lower or upper limit violation	0 ... 999.9 s
response time maximum	450 ms
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
data volume	
● of the address range of the inputs with cyclical transfer total	4 byte
● of the address range 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	
● for auxiliary contacts	1
● delayed switching	1
operating frequency with 3RT2 contactor maximum	5 000 1/h
Main circuit	
number of poles for main current circuit	3
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
ampacity of the semiconductor output in SIO mode	200 mA
operational 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 according to IEC 61000-4-4	2 kV
● due to conductor-earth surge according to IEC 61000-4-5	2 kV
● due to conductor-conductor surge according to IEC 61000-4-5	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Galvanic isolation	
galvanic isolation	
● between input and output	Yes
● between the voltage supply and other circuits	Yes
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
Connections/ Terminals	

Subject to change without notice
© Copyright Siemens

product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	screw terminal
type of connectable conductor cross-sections	
● solid	1x (0.5 ... 4.0 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 cables solid	2x (20 ... 14)
● for AWG cables stranded	2x (20 ... 14)
connectable conductor cross-section	
● solid	0.5 ... 4 mm²
● finely stranded with core end processing	0.5 ... 2.5 mm²
AWG number as coded connectable conductor cross section	
● solid	20 ... 14
● stranded	20 ... 14
tightening torque with screw-type terminals	0.8 ... 1.2 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on mounting
height	102 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
ambient temperature	
● during operation	-25 ... +60 °C
● during storage	-40 ... +85 °C
● during transport	-40 ... +85 °C
Approvals Certificates	
General Product Approval	

Confirmation

Manufacturer Declaration

General Product Approval	EMV	Test Certificates	Marine / Shipping

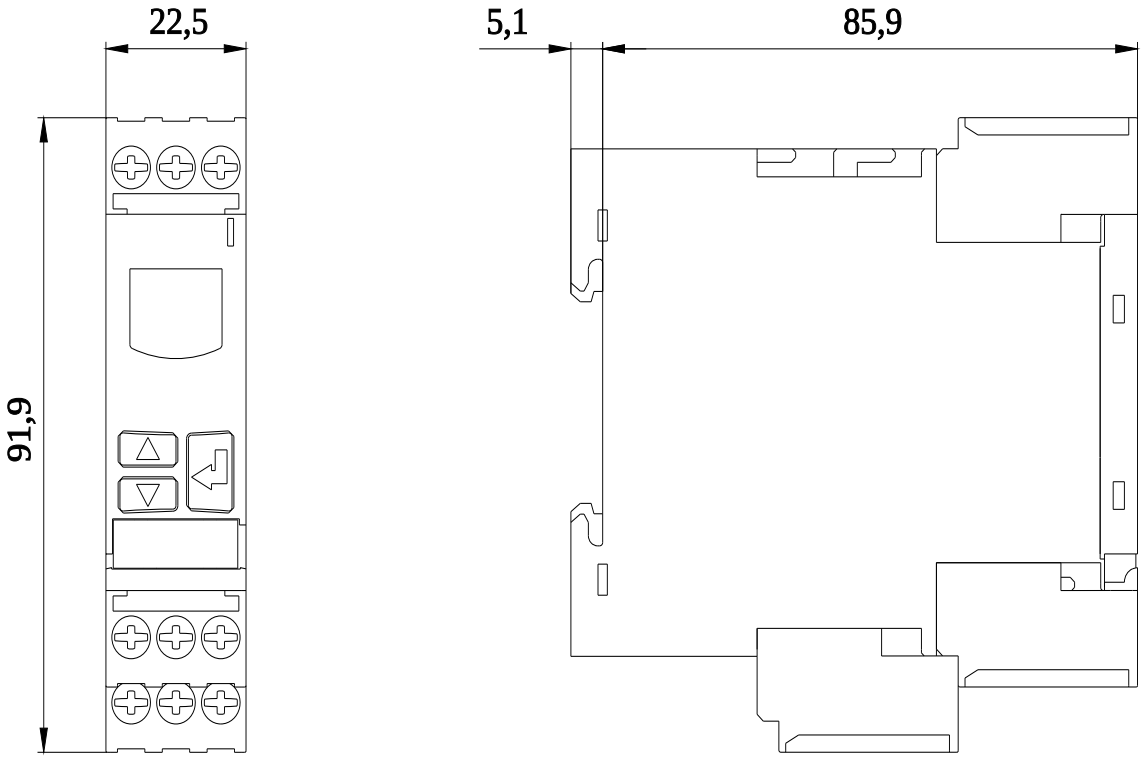
Subject to change without notice
© Copyright Siemens

KC | Special Test Certific-ate | Type Test Certific-ates/Test Report

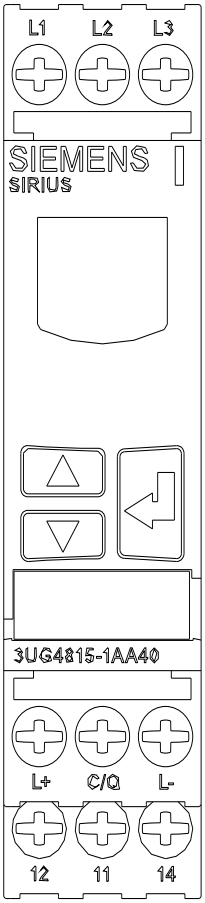
other	Railway	Environment
Confirmation	Special Test Certific-ate	Environmental Con-firmations

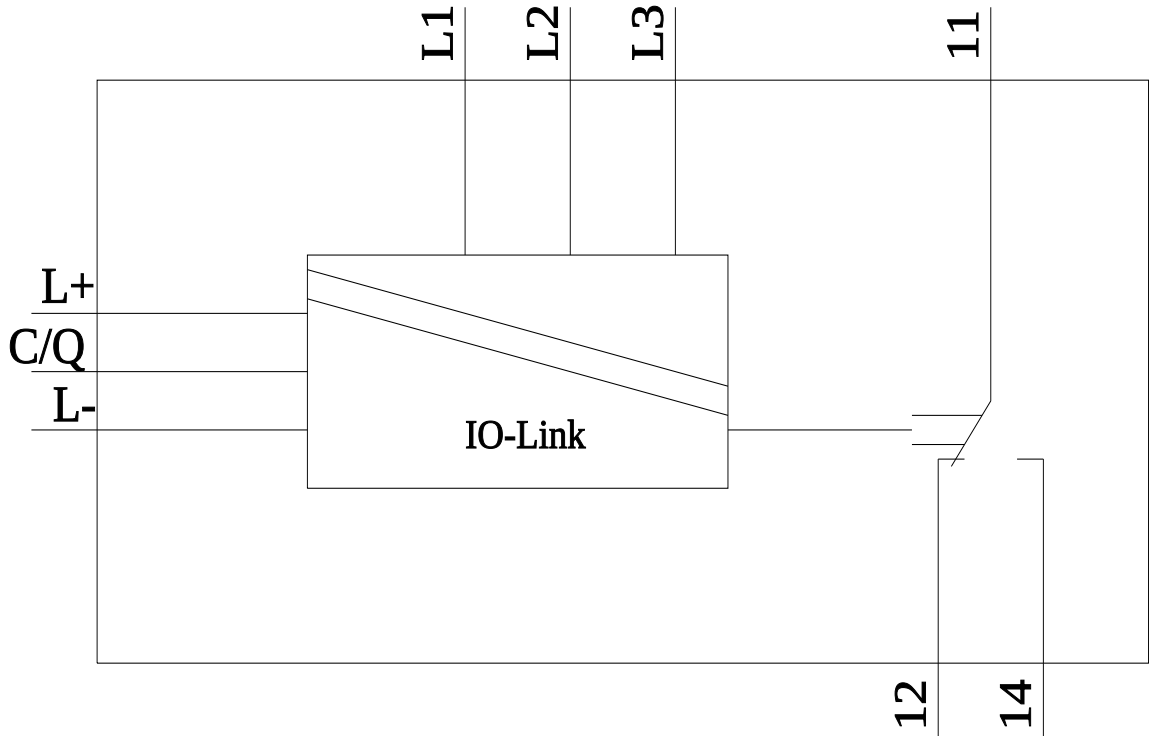
Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
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=3UG4815-1AA40
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=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?mlfb=3UG4815-1AA40&lang=en
Characteristic: Derating
https://support.industry.siemens.com/cs/ww/en/ps/3UG4815-1AA40/manual



Subject to change without notice
© Copyright Siemens





last modified: 4/8/2024

Subject to change without notice
© Copyright Siemens