



!!! product phase-out !!! the preferred successor is 3UG5842-2AA40 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 changeover contact, spring-loaded 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
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/DC
• of the control supply voltage	DC
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
• between control and auxiliary circuit	690 V
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	10 000 002
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 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1
Weight	0.147 kg
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

<ul style="list-style-type: none"> • voltage window recognition DC • adjustable open/closed-circuit current principle • external reset • auto-RESET 	Yes Yes Yes Yes
Control circuit/ Control	
control supply voltage at DC rated value	24 V
operating range factor control supply voltage rated value at DC	
<ul style="list-style-type: none"> • initial value • full-scale value 	0.75 1.25
Measuring circuit	
measurable line frequency	500 ... 40 Hz
measurable voltage at AC	10 ... 600 V
measurable voltage at DC	10 ... 600 V
adjustable response delay time	
<ul style="list-style-type: none"> • when starting • with lower or upper limit violation 	0 ... 999.9 s 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
data volume	
<ul style="list-style-type: none"> • of the address range of the inputs with cyclical transfer total • of the address range of the outputs with cyclical transfer total 	4 byte 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
ampacity of the semiconductor output in SIO mode	200 mA
operational 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 according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 	2 kV 2 kV 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	
design of the electrical isolation	Protective separation
galvanic isolation	
<ul style="list-style-type: none"> • between input and output • between the voltage supply and other circuits 	Yes Yes
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
Connections/ Terminals	
product component 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 mm ²)
• finely stranded with core end processing	2 x (0.25 ... 1.5 mm ²)
• finely stranded without core end processing	2x (0.25 ... 1.5 mm ²)
• for AWG cables solid	2x (24 ... 16)
• for AWG cables stranded	2x (24 ... 16)
connectable conductor cross-section	
• solid	0.25 ... 1.5 mm ²
• finely stranded with core end processing	0.25 ... 1.5 mm ²
• finely stranded without core end processing	0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
• solid	24 ... 16
• stranded	24 ... 16

Installation/ mounting/ dimensions

mounting position	any
fastening method	snap-on mounting
height	94 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
— 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

Approvals Certificates

General Product Approval



[Manufacturer Declaration](#)



EMV	Test Certificates	Maritime application	other
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[KC](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



other	Railway	Environment
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Further information**Information on the packaging**<https://support.industry.siemens.com/cs/ww/en/view/109813875>**Information for data generation and storage**<https://support.industry.siemens.com/cs/ww/en/view/109995012>**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



