



Figure similar

!!! product phase-out !!! the preferred successor is 3UG5616-1CR20 phase failure and sequence monitoring 3x 160-690 V, screw terminal digital monitoring relay for 3-phase voltage with N conductor connectable phase sequence phase failure 3 x 90 to 400 V 50 to 60 Hz AC undervoltage and overvoltage 90-400 V hysteresis 1-20 V 0-20 s each for Umin and Umax 1 changeover contact for Umin 1 changeover contact for Umax 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 3 rated value	690 V
degree of pollution	3
type of voltage	
• for monitoring	AC
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15 g / 11 ms
vibration resistance according to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2 g
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 (day/month/year)	05/01/2012
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
Net Weight	0.161 g
Product Function	
product function	
• undervoltage detection	Yes
• overvoltage detection	Yes
• phase sequence recognition	Yes
• phase failure detection	Yes
• asymmetry detection	Yes
• overcurrent detection 1 phase	No
• overvoltage detection 3 phase	Yes

• undercurrent detection 1 phase • undervoltage detection 3 phases • voltage window recognition 3 phase • adjustable open/closed-circuit current principle • auto-RESET	No Yes Yes Yes Yes
Control circuit/ Control	
type of voltage of the control supply voltage	AC
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value • full-scale value	1 1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value • full-scale value	1 1
Interfaces	
design of the interface bluetooth	No
Measuring circuit	
adjustable response delay time	
• with lower or upper limit violation	0.1 ... 20 s
response time maximum	450 ms
accuracy of digital display	+/-1 digit
Precision	
relative metering precision	5 %
Auxiliary circuit	
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts	
• for auxiliary contacts • delayed switching	2 2
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 • at 400 V at 50/60 Hz	3 A 3 A
ampacity of the output relay at DC-13	
• at 24 V • at 125 V • at 250 V	1 A 0.2 A 0.1 A
operational current at 17 V minimum	5 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 • 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	
galvanic isolation	
• between input and output • between the outputs • between the voltage supply and other circuits	Yes Yes Yes
Safety related data	
product function suitable for safety function	No
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	screw terminal
type of connectable conductor cross-sections • solid • finely stranded with core end processing • for AWG cables solid • for AWG cables stranded	1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) 2x (20 ... 14) 2x (20 ... 14)
connectable conductor cross-section • solid • finely stranded with core end processing	0.5 ... 4 mm ² 0.5 ... 2.5 mm ²
AWG number as coded connectable conductor cross section • solid • stranded	20 ... 14 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 — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — downwards — at the side	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature • during operation • during storage • during transport	-25 ... +60 °C -40 ... +85 °C -40 ... +85 °C
Approvals Certificates	
Environmental Product Declaration	
• global warming potential [CO₂ eq] / during manufacturing • global warming potential [CO₂ eq] / during sales • global warming potential [CO₂ eq] / during operation • global warming potential [CO₂ eq] / after end of life • global warming potential [CO₂ eq] / total	4.44 kg 0.0341 kg 13.7 kg -1.06 kg 17.1 kg
Environment	General Product Approval

[Environmental Con-
firmations](#)



General Product Approval	EMV	Test Certificates
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

Maritime application	other	Railway
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[Confirmation](#)

[Confirmation](#)

[Special Test Certificate](#)

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=3UG4616-1CR20>

Cax online generator

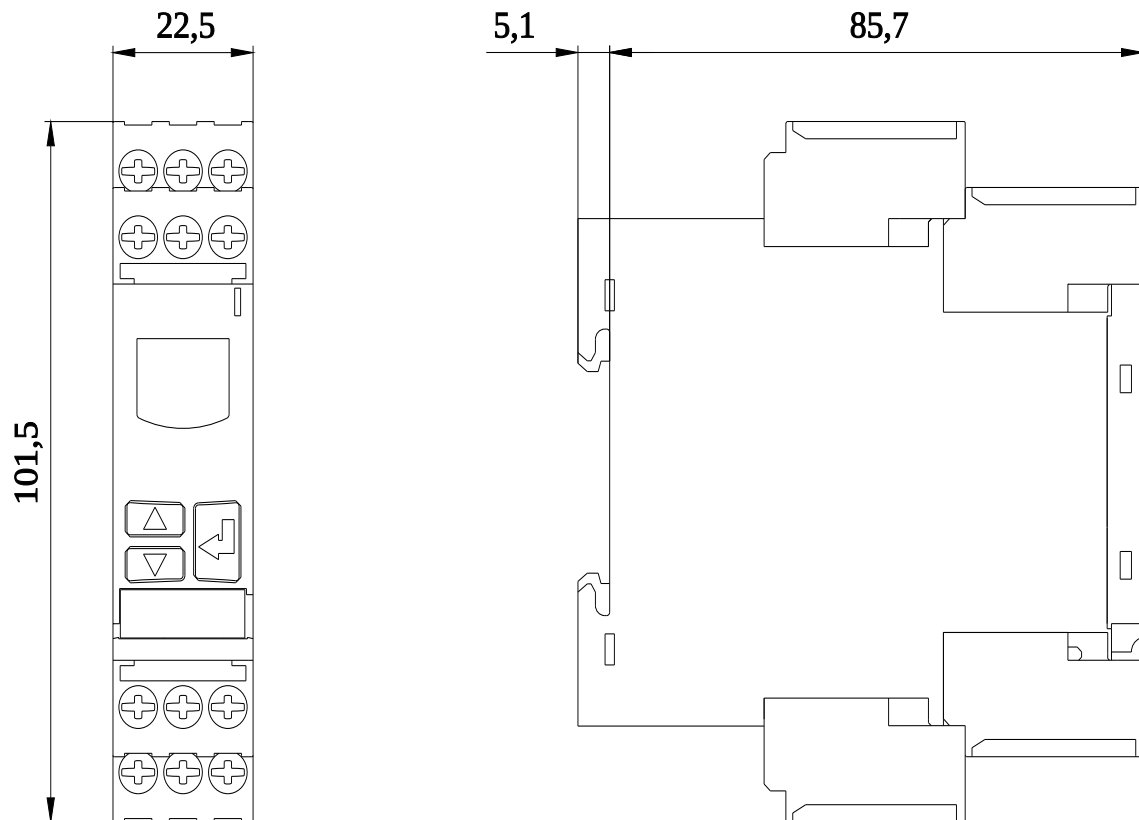
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4616-1CR20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4616-1CR20>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4616-1CR20&lang=en



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