



Digital monitoring relay for 3-phase voltage with N-conductor Phase sequence can be activated 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 CO for Umin 1 CO for Umax Spring-type 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	690 V	
<ul style="list-style-type: none"> with degree of pollution 3 rated value 		
degree of pollution	3	
type of voltage	AC	
<ul style="list-style-type: none"> for monitoring of the control supply voltage 		
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	
vibration resistance acc. to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g	
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 IEC 81346-2	K	
relative repeat accuracy	1 %	
Substance Prohibitance (Date)	01.05.2012 00:00:00	
Product Function		
product function	Yes	
<ul style="list-style-type: none"> undervoltage detection overvoltage detection phase sequence recognition phase failure detection asymmetry detection overvoltage detection 3 phase undervoltage detection 3 phases voltage window recognition 3 phase adjustable open/closed-circuit current principle auto-RESET 		
Control circuit/ Control		

control supply voltage at AC	
<ul style="list-style-type: none"> at 50 Hz rated value at 60 Hz rated value 	90 ... 400 V 90 ... 400 V
operating range factor control supply voltage rated value at AC at 50 Hz	
<ul style="list-style-type: none"> initial value full-scale value 	1 1
operating range factor control supply voltage rated value at AC at 60 Hz	
<ul style="list-style-type: none"> initial value full-scale value 	1 1
Measuring circuit	
adjustable response delay time	
<ul style="list-style-type: none"> with lower or upper limit violation 	0.1 ... 20 s
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 delayed switching	2
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	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 	2 kV 2 kV 1 kV
field-based interference 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	
<ul style="list-style-type: none"> between input and output between the outputs between the voltage supply and other circuits 	Yes Yes Yes
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	
<ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing at AWG cables solid at AWG cables stranded 	2x (0.25 ... 1.5 mm ²) 2 x (0.25 ... 1.5 mm ²) 2x (0.25 ... 1.5 mm ²) 2x (24 ... 16) 2x (24 ... 16)
connectable conductor cross-section	
<ul style="list-style-type: none"> solid 	0.25 ... 1.5 mm ²

<ul style="list-style-type: none"> finely stranded with core end processing 	0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> finely stranded without core end processing 	0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> solid 	24 ... 16
<ul style="list-style-type: none"> stranded 	24 ... 16

Installation/ mounting/ dimensions

mounting position	any
fastening method	snap-on mounting
height	103 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 for grounded parts <ul style="list-style-type: none"> forwards backwards upwards at the side downwards 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 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	
<ul style="list-style-type: none"> during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> during storage 	-40 ... +85 °C
<ul style="list-style-type: none"> during transport 	-40 ... +85 °C

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity	Test Certificates
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[Special Test Certificate](#)

Test Certificates	Marine / Shipping	other	Railway
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[Type Test Certificates/Test Report](#)



[Confirmation](#)

[Vibration and Shock](#)

Further information

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?mfb=3UG4616-2CR20>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4616-2CR20>

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

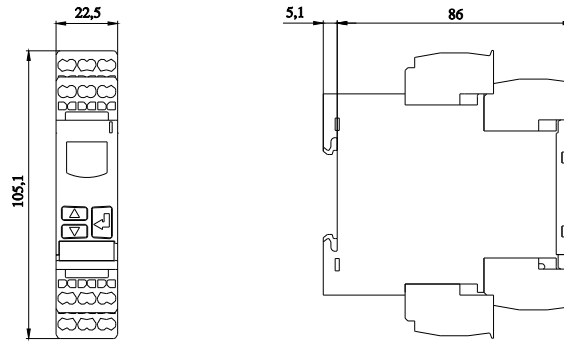
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4616-2CR20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4616-2CR20&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4616-2CR20/manual>



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