



Figure similar

!!! product phase-out !!! The preferred successor type is 3UG5514-2BR20 phase sequence phase failure 3x160-690 V spring digital monitoring relay asymmetry 0-20% connectable phase sequence phase failure 3 x 160 to 690 V 50 to 60 Hz AC undervoltage 160-690 V hysteresis 1-20 V ON and OFF delay 0-20 s 2 changeover contacts spring-loaded connection system

product brand name	SIRIUS
product designation	Network monitoring relay with digital setting
design of the product	4 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
• of the control supply voltage	AC
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	0.143 kg
Product Function	
product function	
• undervoltage detection	Yes
• overvoltage detection	No
• phase sequence recognition	Yes
• phase failure detection	Yes
• asymmetry detection	Yes
• overvoltage detection 3 phase	No
• undervoltage detection 3 phases	Yes
• voltage window recognition 3 phase	No

<ul style="list-style-type: none"> adjustable open/closed-circuit current principle 	Yes
<ul style="list-style-type: none"> auto-RESET 	Yes
Control circuit/ Control	
control supply voltage at AC	
<ul style="list-style-type: none"> at 50 Hz rated value 	160 ... 690 V
<ul style="list-style-type: none"> at 60 Hz rated value 	160 ... 690 V
operating range factor control supply voltage rated value at AC at 50 Hz	
<ul style="list-style-type: none"> initial value 	1
<ul style="list-style-type: none"> full-scale value 	1
operating range factor control supply voltage rated value at AC at 60 Hz	
<ul style="list-style-type: none"> initial value 	1
<ul style="list-style-type: none"> full-scale value 	1
Measuring circuit	
measurable voltage at AC	160 ... 690 V
adjustable response delay time	
<ul style="list-style-type: none"> when starting 	0.1 ... 20 s
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> for auxiliary contacts 	2
<ul style="list-style-type: none"> delayed switching 	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	
<ul style="list-style-type: none"> at 250 V at 50/60 Hz 	3 A
<ul style="list-style-type: none"> at 400 V at 50/60 Hz 	3 A
ampacity of the output relay at DC-13	
<ul style="list-style-type: none"> at 24 V 	1 A
<ul style="list-style-type: none"> at 125 V 	0.2 A
<ul style="list-style-type: none"> at 250 V 	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 according to IEC 61000-4-4 	2 kV
<ul style="list-style-type: none"> due to conductor-earth surge according to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> between input and output 	Yes
<ul style="list-style-type: none"> between the outputs 	Yes
<ul style="list-style-type: none"> between the voltage supply and other circuits 	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	

<ul style="list-style-type: none"> • solid • finely stranded with core end processing • finely stranded without core end processing • for AWG cables solid • for AWG cables stranded 	<p>2x (0.25 ... 1.5 mm²)</p> <p>2 x (0.25 ... 1.5 mm²)</p> <p>2x (0.25 ... 1.5 mm²)</p> <p>2x (24 ... 16)</p> <p>2x (24 ... 16)</p>
connectable conductor cross-section <ul style="list-style-type: none"> • solid • finely stranded with core end processing • finely stranded without core end processing 	<p>0.25 ... 1.5 mm²</p> <p>0.25 ... 1.5 mm²</p> <p>0.25 ... 1.5 mm²</p>
AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> • solid • stranded 	<p>24 ... 16</p> <p>24 ... 16</p>

Installation/ mounting/ dimensions

mounting position	any
fastening method	snap-on mounting
height	94 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 	<p>0 mm</p>

Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	<p>-25 ... +60 °C</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p>

Approvals Certificates

General Product Approval



[Confirmation](#)



EMV Test Certificates Marine / Shipping



[KC](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



other Railway Environment



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=3UG4614-2BR20>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4614-2BR20>

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

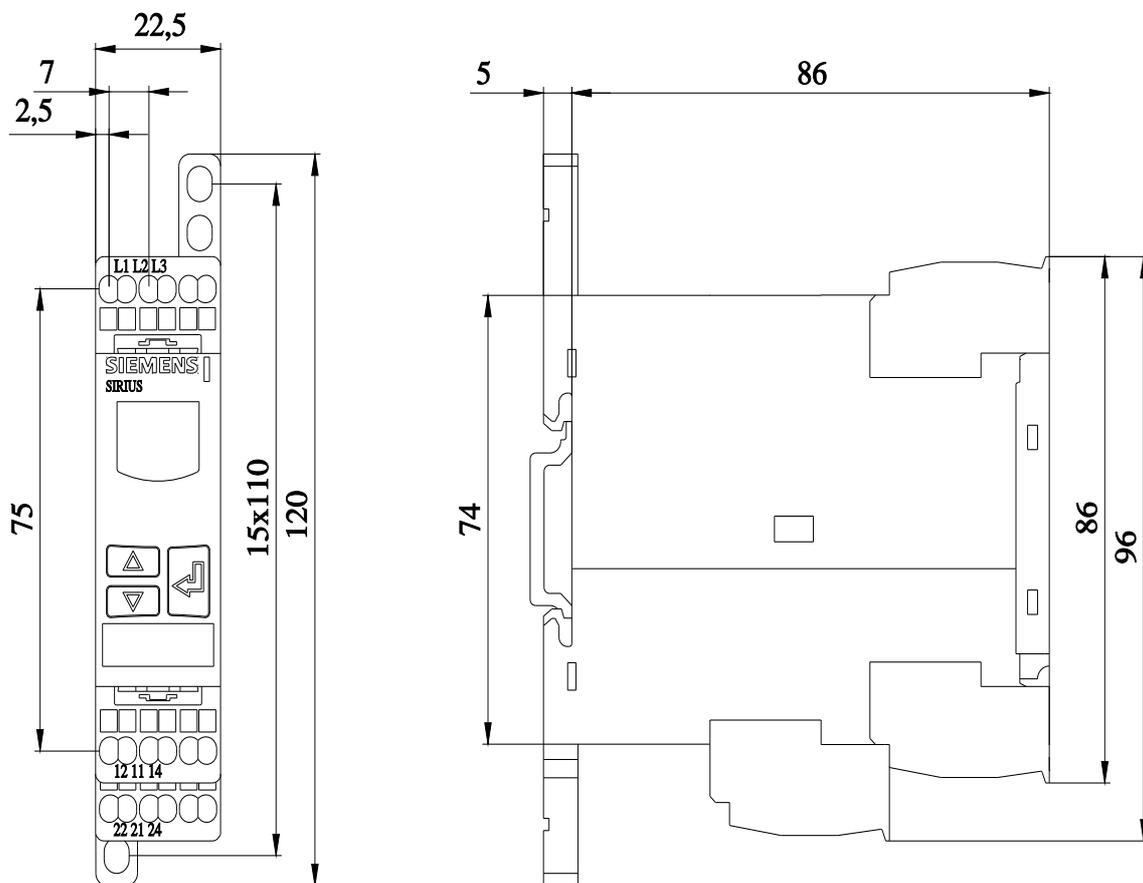
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4614-2BR20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4614-2BR20&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4614-2BR20/manual>



last modified:

3/11/2024