

Analog monitoring relay Phase failure and sequence Adjustable
 undervoltage Asymmetry 20% fixed 3 x 160 to 690 V 50 to 60 Hz AC
 Hysteresis 5% fixed Delay time 0-20 s 2 change-over contacts
 spring-type connection system



Product brand name	SIRIUS
Product designation	Network monitoring relay with analog setting
Design of the product	4 functions
Product type designation	3UG4

General technical data	
Product function	Phase monitoring relay
Display version LED	Yes
Insulation voltage	690 V
<ul style="list-style-type: none"> for overvoltage category III according to IEC 60664 — 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	sinusoidal half-wave 15g / 11 ms
<ul style="list-style-type: none"> acc. to IEC 60068-2-27 	

Vibration resistance	
<ul style="list-style-type: none"> • acc. to IEC 60068-2-6 	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • typical 	10 000 000
Electrical endurance (switching cycles)	
<ul style="list-style-type: none"> • at AC-15 at 230 V typical 	100 000
Thermal current of the switching element with contacts maximum	5 A
Reference code acc. to DIN EN 81346-2	K
Relative repeat accuracy	1 %

Product Function

Product function	
<ul style="list-style-type: none"> • undervoltage detection 	Yes
<ul style="list-style-type: none"> • Overvoltage detection 	No
<ul style="list-style-type: none"> • phase sequence recognition 	Yes
<ul style="list-style-type: none"> • Phase failure detection 	Yes
<ul style="list-style-type: none"> • Phase unbalance 	Yes
<ul style="list-style-type: none"> • Overvoltage detection 3 phase 	No
<ul style="list-style-type: none"> • undervoltage detection 3 phases 	Yes
<ul style="list-style-type: none"> • Voltage window recognition 3 phase 	No
<ul style="list-style-type: none"> • Adjustable open/closed-circuit current principle 	No
<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

Precision

Relative metering precision	5 %
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Auxiliary circuit

Number of NC contacts	
<ul style="list-style-type: none"> • delayed switching 	0
Number of NO contacts	
<ul style="list-style-type: none"> • delayed switching 	0

Number of CO contacts	
<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
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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
Operating 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-bound parasitic coupling 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 entrance and outlet • between the outputs • between the voltage supply and other circuits 	Yes Yes Yes

Connections/ Terminals

Product function	
<ul style="list-style-type: none"> • 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 conductors solid • at AWG conductors 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 • 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
Mounting type	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> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • 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>

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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[Miscellaneous](#)

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

[Special Test Certificate](#)



LRS



[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?mlfb=3UG4513-2BR20>

Cax online generator

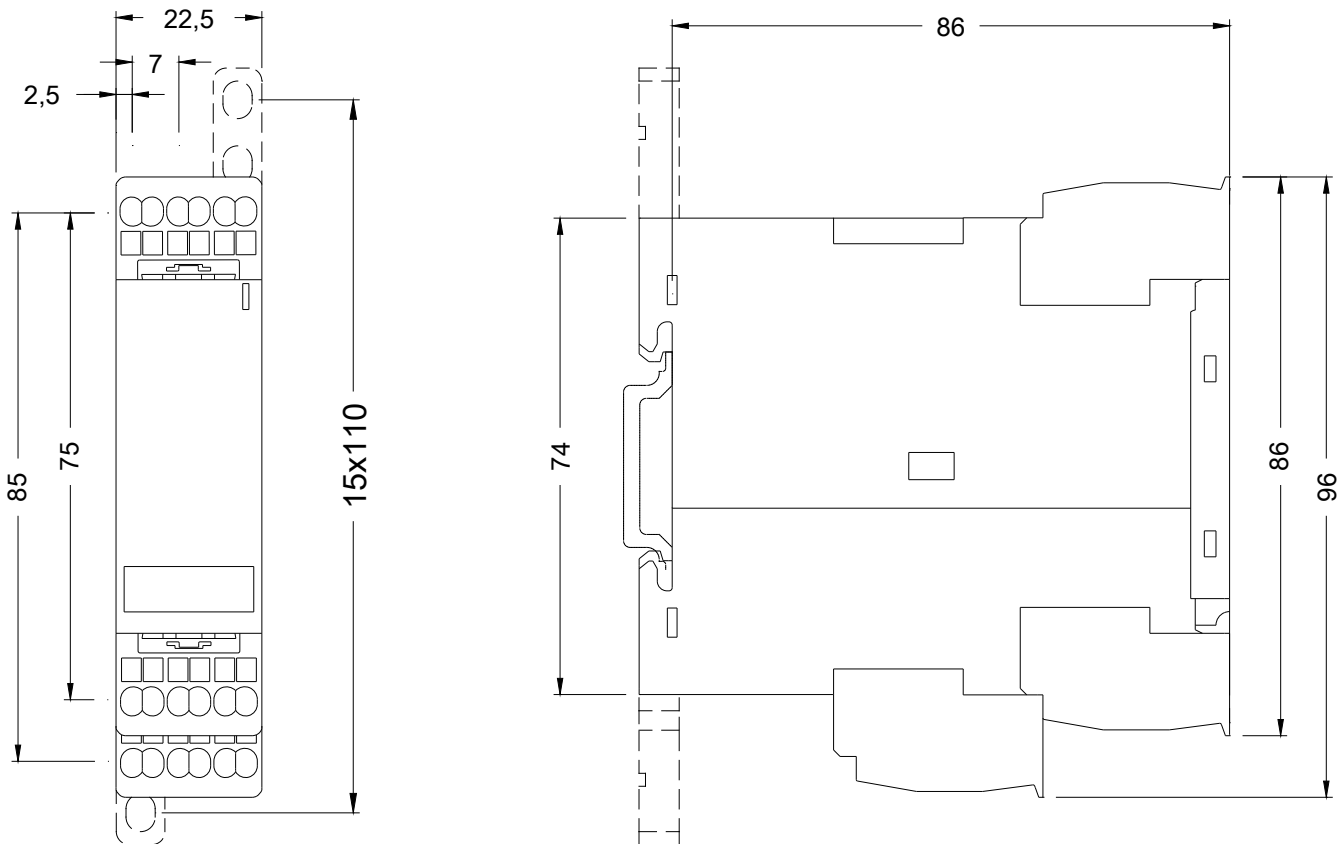
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4513-2BR20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG4513-2BR20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4513-2BR20&lang=en



last modified:

05/15/2020