



Analog monitoring relay Phase failure and sequence 3 x 160...690 V 50...60 Hz AC 2 change-over contacts screw terminal Successor product for 3UG3513-1BL50 or 3UG3513-1PB50

Product brand name	SIRIUS
Product designation	Network monitoring relay with analog setting
Design of the product	2 functions
Product type designation	3UG4

General technical data	
Product function	Phase monitoring relay
Display version LED	Yes
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	
• acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
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 DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code acc. to DIN EN 81346-2	K
Reference code acc. to DIN EN 61346-2	K
Relative repeat accuracy	1 %

Product Function	
Product function	
• undervoltage detection	No
• Overvoltage detection	No
• phase sequence recognition	Yes

• Phase failure detection	Yes
• Overvoltage detection 3 phase	No
• undervoltage detection 3 phases	No
• Voltage window recognition 3 phase	No
• Adjustable open/closed-circuit current principle	No
• Auto-reset	Yes

Control circuit/ Control

Control supply voltage at AC	
• at 50 Hz rated value	160 ... 690 V
• at 60 Hz rated value	160 ... 690 V
Operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	1
• Full-scale value	1
Operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	1
• Full-scale value	1

Auxiliary circuit

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
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Outputs

Ampacity of the output relay at AC-15	
• at 250 V at 50/60 Hz	3 A
• at 400 V at 50/60 Hz	3 A
Ampacity of the output relay at DC-13	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	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	
• due to burst acc. to IEC 61000-4-4	2 kV
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV

<ul style="list-style-type: none"> • due to conductor-conductor surge acc. to IEC 61000-4-5 	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 	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

Connections/Terminals

Product function	
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	Yes
Type of electrical connection	screw-type terminals
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid 	1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> • finely stranded with core end processing 	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> • at AWG conductors solid 	2x (20 ... 14)
<ul style="list-style-type: none"> • at AWG conductors stranded 	2x (20 ... 14)
Connectable conductor cross-section	
<ul style="list-style-type: none"> • solid 	0.5 ... 4 mm ²
<ul style="list-style-type: none"> • finely stranded with core end processing 	0.5 ... 2.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	20 ... 14
<ul style="list-style-type: none"> • stranded 	20 ... 14
Tightening torque	
<ul style="list-style-type: none"> • with screw-type terminals 	0.8 ... 1.2 N·m

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	snap-on mounting
Height	92 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 	0 mm 0 mm 0 mm 0 mm 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
 - downwards 0 mm
 - 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

Ambient conditions

Installation altitude at height above sea level

- maximum 2 000 m

Certificates/approvals

General Product Approval		EMC	Declaration of Conformity	
				
CCC	UL		RCM	EG-Konf.

[Miscellaneous](#)

Test Certificates	Marine / Shipping	other	Railway
Special Test Certificate		Confirmation	Vibration and Shock
Type Test Certificates/Test Report	LRS		



Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG4512-1BR20>

Cax online generator

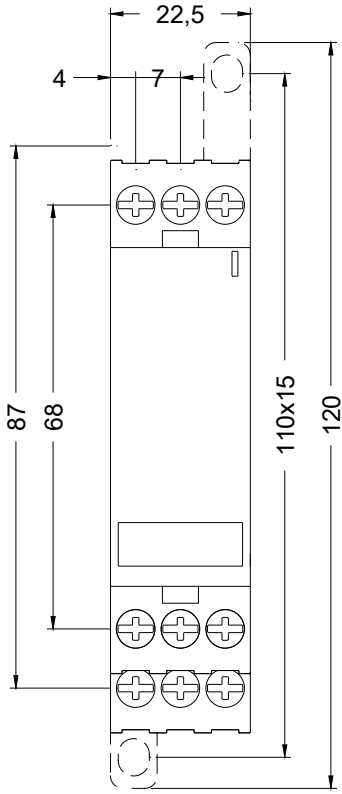
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4512-1BR20>

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

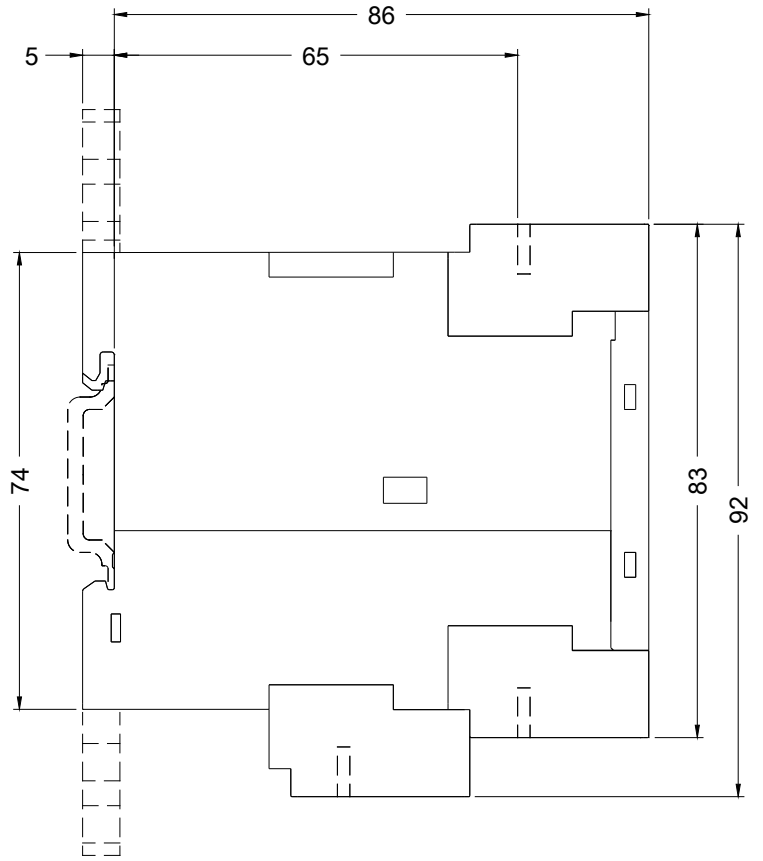
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4512-1BR20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4512-1BR20&lang=en



last modified:



06/06/2019