



Analog monitoring relay Phase failure and sequence 3 x 160...690 V
50...60 Hz AC 1 change-over contact spring-type connection system

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
- Overvoltage detection 3 phase
- undervoltage detection 3 phases
- Voltage window recognition 3 phase
- Adjustable open/closed-circuit current principle
- Auto-reset

Yes
No
No
No
No
Yes

Control circuit/ Control

Control supply voltage at AC

- at 50 Hz rated value
- at 60 Hz rated value

160 ... 690 V
160 ... 690 V

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

Auxiliary circuit

Number of CO contacts

- delayed switching

1

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

- 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

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
- due to conductor-earth surge acc. to IEC 61000-4-5

2 kV
2 kV

• 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	
• between entrance and outlet	Yes
• between the outputs	Yes
• between the voltage supply and other circuits	Yes

Connections/Terminals

Product function	
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	spring-loaded terminals
Type of connectable conductor cross-sections	
• solid	2x (0.25 ... 1.5 mm ²)
• finely stranded with core end processing	2 x (0.25 ... 1.5 mm ²)
• finely stranded without core end processing	2x (0.25 ... 1.5 mm ²)
• at AWG conductors solid	2x (24 ... 16)
• at AWG conductors stranded	2x (24 ... 16)
Connectable conductor cross-section	
• solid	0.25 ... 1.5 mm ²
• finely stranded with core end processing	0.25 ... 1.5 mm ²
• finely stranded without core end processing	0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
• solid	24 ... 16
• stranded	24 ... 16

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	snap-on mounting
Height	84 mm
Width	22.5 mm
Depth	91 mm
Required spacing	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	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

Ambient conditions

Installation altitude at height above sea level

• maximum	2 000 m
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Certificates/approvals

General Product Approval



[Miscellaneous](#)

EG-Konf.

Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



LRS



DNVGL.COM/AF

Marine / Shipping

other

[Confirmation](#)

Railway

[Vibration and Shock](#)

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=3UG4512-2AR20>

Cax online generator

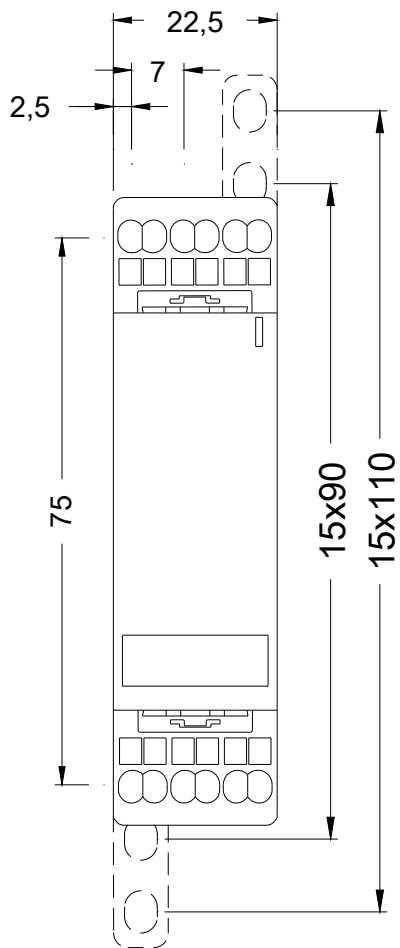
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4512-2AR20>

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

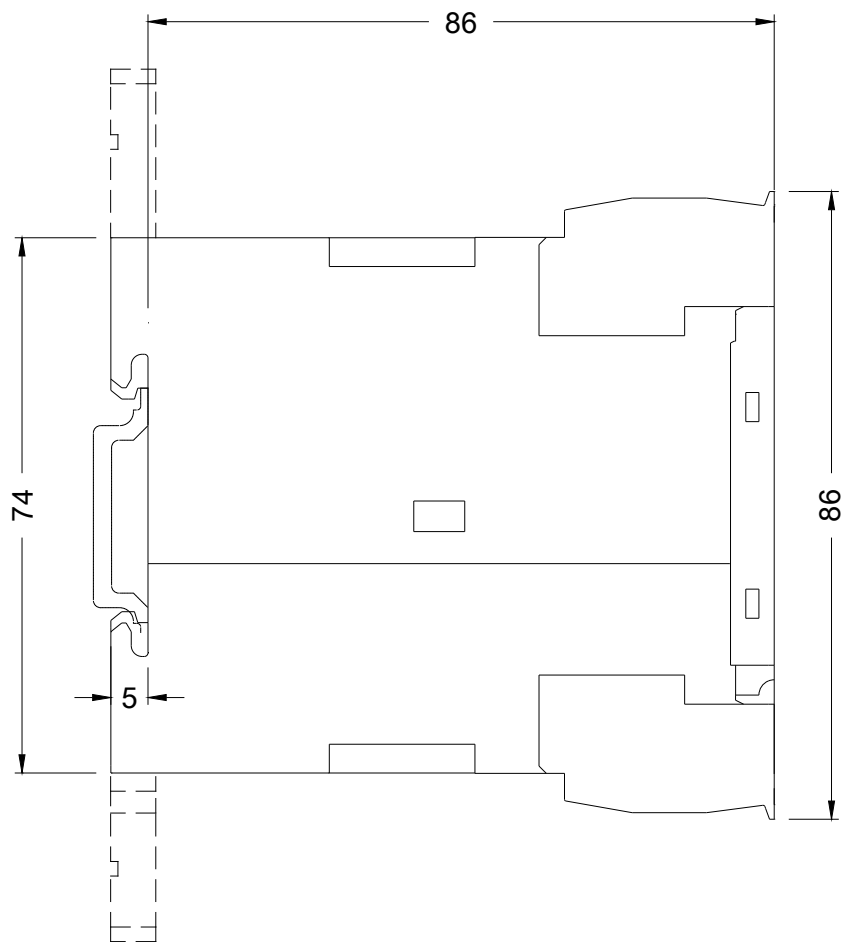
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4512-2AR20>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4512-2AR20&lang=en



last modified:



06/06/2019