

Siemens  
EcoTech



digital monitoring relay residual current monitoring (with current transformer 3UL23)  
adjustment range 0.03...40 A supply voltage 24 ... 240 V AC/DC, 50 .. 60 Hz ON  
delay and tripping delay 0.1..999.9 s 2 changeover contacts screw terminal

product brand name	SIRIUS
product designation	Residual current monitoring relay with digital setting
design of the product	monitoring of residual current, external power supply with auxiliary voltage
product type designation	3UG5
<b>General technical data</b>	
product function	residual current monitoring relay
design of the display	LCD
power loss [W] maximum	1.8 W
power loss [V·A] maximum	4.5 VA
insulation voltage	
• rated value	690 V
• for overvoltage category III according to IEC 60664	
— with degree of pollution 2 rated value	690 V
— with degree of pollution 3 rated value	690 V
degree of pollution	3
type of voltage	
• for monitoring	AC/DC
• of the control supply voltage	AC/DC
surge voltage resistance rated value	4 kV
protection class IP	
• of the enclosure	IP20
• of the terminal	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15 g / 11 ms
vibration resistance according to IEC 60068-2-6	f = 4 ... 5,81 Hz, dmax = 15 mm; f = 5,81 ... 500 Hz, amax = 20 m/s <sup>2</sup> ; 10 cycles
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 (day/month/year)	06/01/2023
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
Net Weight	0.189 kg

Product Function	
<b>product function</b>	
• phase sequence recognition	No
• phase failure detection	No
• asymmetry detection	No
• residual current display	Yes
• error memory	Yes
• overcurrent detection 1 phase	Yes
• undercurrent detection 1 phase	No
• adjustable open/closed-circuit current principle	Yes
• external reset	No
• auto-RESET	Yes
• manual RESET	Yes
Control circuit/ Control	
<b>control supply voltage at AC</b>	
• at 50 Hz rated value	24 ... 240 V
• at 60 Hz rated value	24 ... 240 V
<b>control supply voltage at DC rated value</b>	24 ... 240 V
<b>operating range factor control supply voltage rated value at DC</b>	
• initial value	0.85
• full-scale value	1.1
<b>operating range factor control supply voltage rated value at AC at 50 Hz</b>	
• initial value	0.85
• full-scale value	1.1
<b>operating range factor control supply voltage rated value at AC at 60 Hz</b>	
• initial value	0.85
• full-scale value	1.1
Measuring circuit	
<b>type of current for monitoring</b>	AC
<b>measurable current</b>	30 ... 40 000 mA
<b>measurable line frequency</b>	16 ... 400 Hz
<b>adjustable operating delay time</b>	0 ... 999.8 s
<b>adjustable current response value current</b>	
• 1	30 mA ... 40 A
• 2	30 mA ... 40 A
<b>adjustable response delay time</b>	0 ... 999.8 s
adjustable response delay time when starting	0 ... 999.8 s
<b>adjustable switching hysteresis for measured current value</b>	0 mA
<b>buffering time in the event of power failure minimum</b>	10 ms
<b>accuracy of digital display</b>	+/-1 digit
Precision	
<b>relative metering precision</b>	5 %
<b>temperature drift per °C</b>	0 %/°C
Communication/ Protocol	
protocol is supported IO-Link protocol	No
Auxiliary circuit	
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
<b>number of CO contacts</b>	
• for auxiliary contacts	2
• delayed switching	2
<b>operating frequency with 3RT2 contactor maximum</b>	5 000 1/h
Main circuit	
<b>type of voltage</b>	AC/DC
operating voltage rated value	24 ... 240 V
operating frequency rated value	16 ... 400 Hz

<b>ampacity of the output relay at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 230 V at 50/60 Hz</li> <li>• at 250 V at 50/60 Hz</li> <li>• at 400 V at 50/60 Hz</li> </ul>	<p>3 A</p> <p>3 A</p> <p>3 A</p>
<b>ampacity of the output relay at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 110 V</li> <li>• at 125 V</li> <li>• at 230 V</li> <li>• at 250 V</li> </ul>	<p>1 A</p> <p>0.2 A</p> <p>0.2 A</p> <p>0.1 A</p> <p>0.1 A</p>
<b>operational current at 17 V minimum</b>	5 mA
<b>continuous current of the DIAZED fuse link of the output relay</b>	6 A
<b>Electromagnetic compatibility</b>	
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	<p>2 kV</p> <p>2 kV</p> <p>1 kV</p>
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge
<b>Galvanic isolation</b>	
<b>design of the electrical isolation</b>	galvanic isolation
<b>galvanic isolation</b>	
<ul style="list-style-type: none"> <li>• between input and output</li> <li>• between the outputs</li> <li>• between the voltage supply and other circuits</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
<b>Safety related data</b>	
product function suitable for safety function	No
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	screw terminal
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• for AWG cables solid</li> </ul>	<p>1x (0.5 ... 4.0mm<sup>2</sup>), 2x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>1x (20 ... 12), 2x (20 ... 14)</p>
<b>connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>	<p>0.5 ... 4 mm<sup>2</sup></p> <p>0.5 ... 4 mm<sup>2</sup></p>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	<p>20 ... 12</p> <p>20 ... 12</p>
tightening torque with screw-type terminals	0.6 ... 0.8 N·m
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting
<b>height</b>	100 mm
<b>width</b>	22.5 mm
<b>depth</b>	90 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts</li> </ul>	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>

- 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

#### ambient temperature

- during operation -25 ... +60 °C
- during storage -40 ... +80 °C
- during transport -40 ... +80 °C

#### Approvals Certificates

Environment

General Product Approval

[Environmental Con-  
firmations](#)



General Product Ap-  
proval

Test Certificates

other



[Type Test Certific-  
ates/Test Report](#)

[Confirmation](#)



[Confirmation](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

##### 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=3UG5625-1CW30>

##### Cax online generator

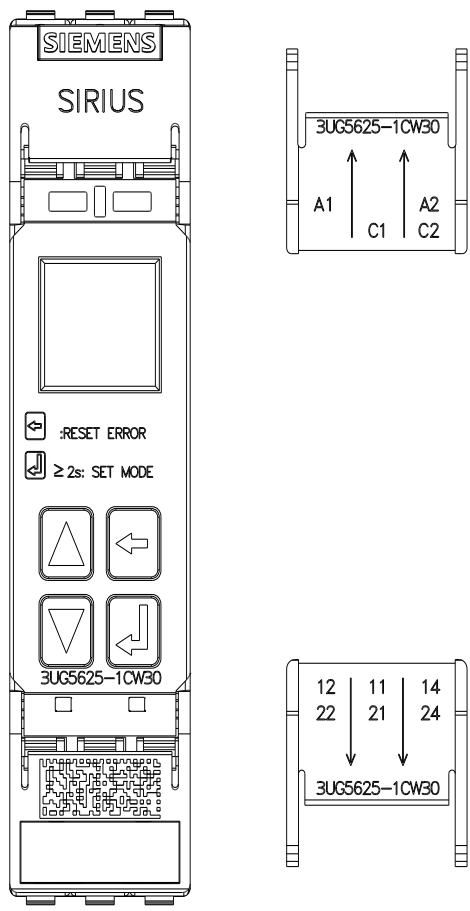
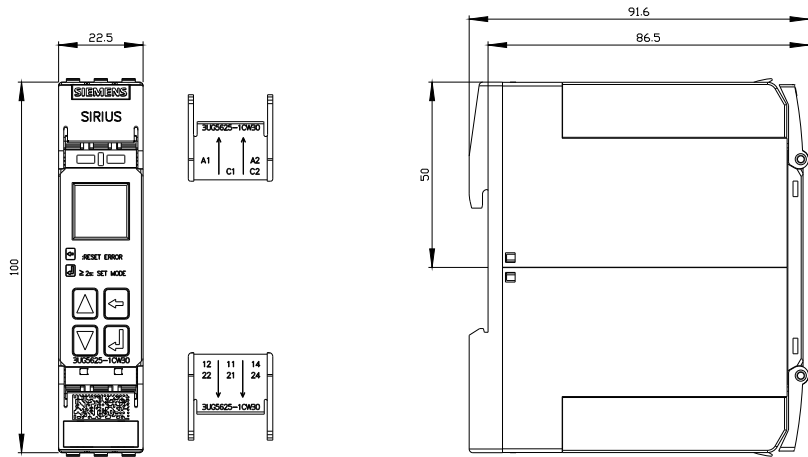
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG5625-1CW30>

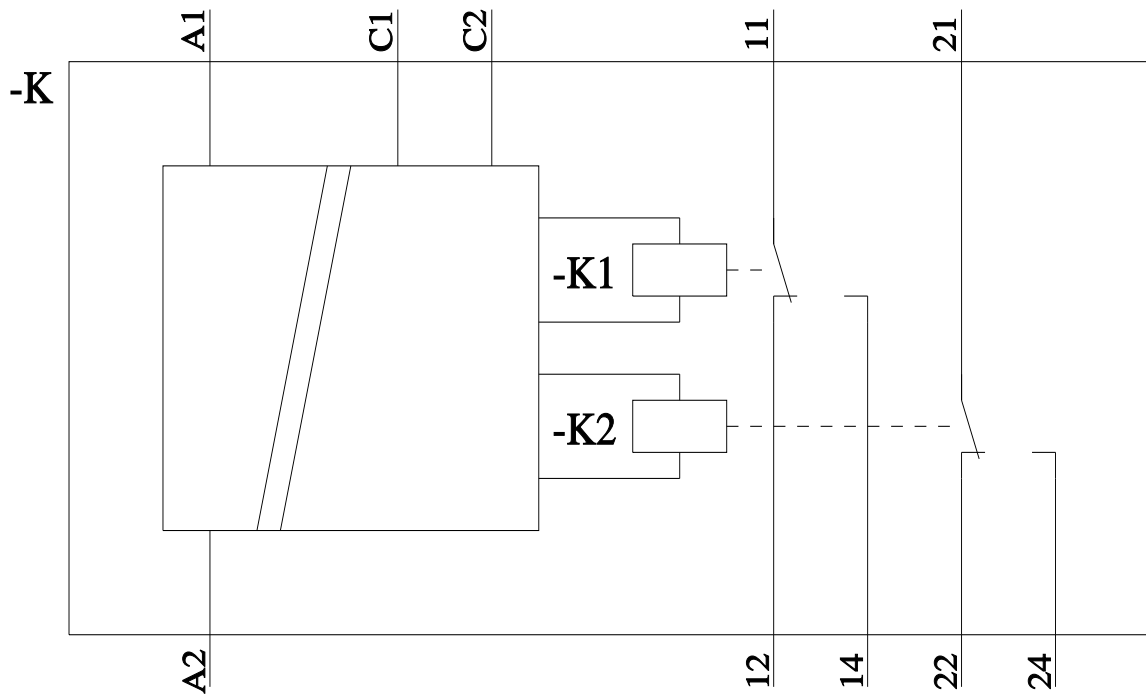
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UG5625-1CW30>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG5625-1CW30&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG5625-1CW30&lang=en)





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