

Timing relay, electronic ansprechverzögert 1 change-over contact, 1 time range 1.5...30 s 12-240 V AC/DC at 50/60 Hz AC with LED, Screw terminal



Figure similar

Product brand name	SIRIUS
Product designation	timing relay
Design of the product	slow-operating
Product type designation	3RP25

General technical data	
<b>Product component</b>	
• Relay output	Yes
• semi-conductor output	No
<b>Product extension required remote control</b>	No
<b>Product extension optional remote control</b>	No
<b>Power loss [W] total typical</b>	2 W
<b>Insulation voltage</b>	
• for overvoltage category III according to IEC 60664	
— with degree of pollution 3 rated value	300 V
<b>Test voltage for isolation test</b>	2.5 kV
<b>Degree of pollution</b>	3

<b>Surge voltage resistance rated value</b>	4 000 V
<b>Protection class IP</b>	IP20
<b>Shock resistance</b>	
• acc. to IEC 60068-2-27	11g / 15 ms
<b>Vibration resistance</b>	
• acc. to IEC 60068-2-6	10 ... 55 Hz / 0.35 mm
<b>Mechanical service life (switching cycles)</b>	
• typical	10 000 000
<b>Electrical endurance (switching cycles)</b>	
• at AC-15 at 230 V typical	100 000
<b>Adjustable time</b>	1 ... 30 s
<b>Relative setting accuracy relating to full-scale value</b>	5 %
<b>Thermal current</b>	5 A
<b>Recovery time</b>	250 ms
<b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>	K
<b>Reference code</b>	
• acc. to IEC 81346-2:2009	K
• acc. to DIN EN 61346-2	K
<b>Relative repeat accuracy</b>	1 %

#### Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>	AC/DC
<b>Control supply voltage 1 at AC</b>	
• at 50 Hz	12 ... 240 V
• at 60 Hz	12 ... 240 V
<b>Control supply voltage frequency 1</b>	50 ... 60 Hz
<b>Control supply voltage 1</b>	
• at DC	12 ... 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
<b>Inrush current peak</b>	
• at 24 V	0.4 A
• at 240 V	5 A

<b>Duration of inrush current peak</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 240 V</li> </ul>	<p>0.3 ms</p> <p>0.5 ms</p>
<b>Switching Function</b>	
<b>Switching function</b>	
<ul style="list-style-type: none"> <li>• ON-delay</li> <li>• ON-delay/instantaneous contact</li> <li>• passing make contact</li> <li>• passing make contact/instantaneous contact</li> <li>• OFF delay</li> </ul>	<p>Yes</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
<b>Switching function</b>	
<ul style="list-style-type: none"> <li>• flashing symmetrically starting with interval/instantaneous</li> <li>• flashing symmetrically starting with interval</li> <li>• flashing symmetrically starting with pulse/instantaneous</li> <li>• flashing symmetrically starting with pulse</li> <li>• flashing asymmetrically starting with interval</li> <li>• flashing asymmetrically starting with pulse</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
<b>Switching function</b>	
<ul style="list-style-type: none"> <li>• star-delta circuit with delay time</li> <li>• star-delta circuit</li> </ul>	<p>No</p> <p>No</p>
<b>Switching function with control signal</b>	
<ul style="list-style-type: none"> <li>• additive ON delay</li> <li>• passing break contact</li> <li>• passing break contact/instantaneous</li> <li>• OFF delay</li> <li>• OFF delay/instantaneous</li> <li>• pulse delayed</li> <li>• pulse delayed/instantaneous</li> <li>• pulse-shaping</li> <li>• pulse-shaping/instantaneous</li> <li>• additive ON delay/instantaneous</li> <li>• ON-delay/OFF-delay/instantaneous</li> <li>• passing make contact</li> <li>• passing make contact/instantaneous contact</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
<b>Switching function of interval relay with control signal</b>	
<ul style="list-style-type: none"> <li>• retrotriggerable with deactivated control signal/instantaneous contact</li> <li>• retrotriggerable with activated control signal</li> <li>• retrotriggerable with activated control signal/instantaneous contact</li> </ul>	<p>No</p> <p>No</p> <p>No</p>

- retriggerable with deactivated control signal

No

## Short-circuit protection

### Design of the fuse link

- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 4 A

## Auxiliary circuit

### Material of switching contacts

AgSnO<sub>2</sub>

### Number of NC contacts

- delayed switching

0

### Number of NO contacts

- delayed switching

0

### Number of CO contacts

- delayed switching

1

### Operating current of auxiliary contacts at AC-15

- at 24 V
- at 250 V

3 A

3 A

### Operating current of auxiliary contacts at DC-13

- at 24 V
- at 125 V
- at 250 V

1 A

0.2 A

0.1 A

### Operating frequency with 3RT2 contactor maximum

5 000 1/h

### Contact reliability of auxiliary contacts

one incorrect switching operation of 100 million switching operations (17 V, 5 mA)

### Contact rating of auxiliary contacts according to UL

R300 / B300

### Influence of the surrounding temperature

1% in the whole temperature range to the set runtime

### Power supply influence

1% in the whole voltage range to the set runtime

### Switching capacity current with inductive load

0.01 ... 3 A

## Inputs/ Outputs

### Product function

- at the relay outputs Switchover delayed/without delay
- non-volatile

No

No

## Electromagnetic compatibility

### EMI immunity

- acc. to IEC 61812-1

EN 61000-6-2

### Conducted interference

- 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 network connection / 1 kV control connection

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	4 kV contact discharge / 8 kV air discharge

#### Safety related data

Protection against electrical shock	finger-safe
Type of insulation	Basic insulation
Category acc. to EN 954-1	none

#### Connections/Terminals

<b>Product function</b>	Yes
<ul style="list-style-type: none"> <li>removable terminal for auxiliary and control circuit</li> </ul>	
<b>Type of electrical connection</b>	screw-type terminals
<ul style="list-style-type: none"> <li>for auxiliary and control current circuit</li> </ul>	
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>solid</li> </ul>	1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>	1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>at AWG conductors solid</li> </ul>	1x (20 ... 12), 2x (20 ... 14)
<ul style="list-style-type: none"> <li>at AWG conductors stranded</li> </ul>	1x (20 ... 12), 2x (20 ... 14)
<b>Connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>solid</li> </ul>	0.5 ... 4 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>	0.5 ... 4 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>solid</li> </ul>	20 ... 12
<ul style="list-style-type: none"> <li>stranded</li> </ul>	20 ... 14
<b>Tightening torque</b>	0.6 ... 0.8 N·m
<b>Design of the thread of the connection screw</b>	M3

#### Installation/ mounting/ dimensions

<b>Mounting position</b>	any
<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail
<b>Height</b>	100 mm
<b>Width</b>	17.5 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 <ul style="list-style-type: none"> <li>— forwards</li> </ul> </li> </ul>	0 mm 0 mm 0 mm 0 mm 0 mm 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

<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m
<b>Ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
<b>Relative humidity</b>	
• during operation	10 ... 95 %

### Certificates/approvals

<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>
 CCC	 EAC	 EG-Konf.
 CSA	 UL	 C-Tick

<b>Test Certificates</b>	<b>Marine / Shipping</b>
<a href="#">Type Test Certificates/Test Report</a>	 LRS
	 PRS
	 RINA
	 RMRS
	 DNV-GL DNVGL.COM/AF

**other**  
[Confirmation](#)

### 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=3RP2512-1AW30>

**Cax online generator**

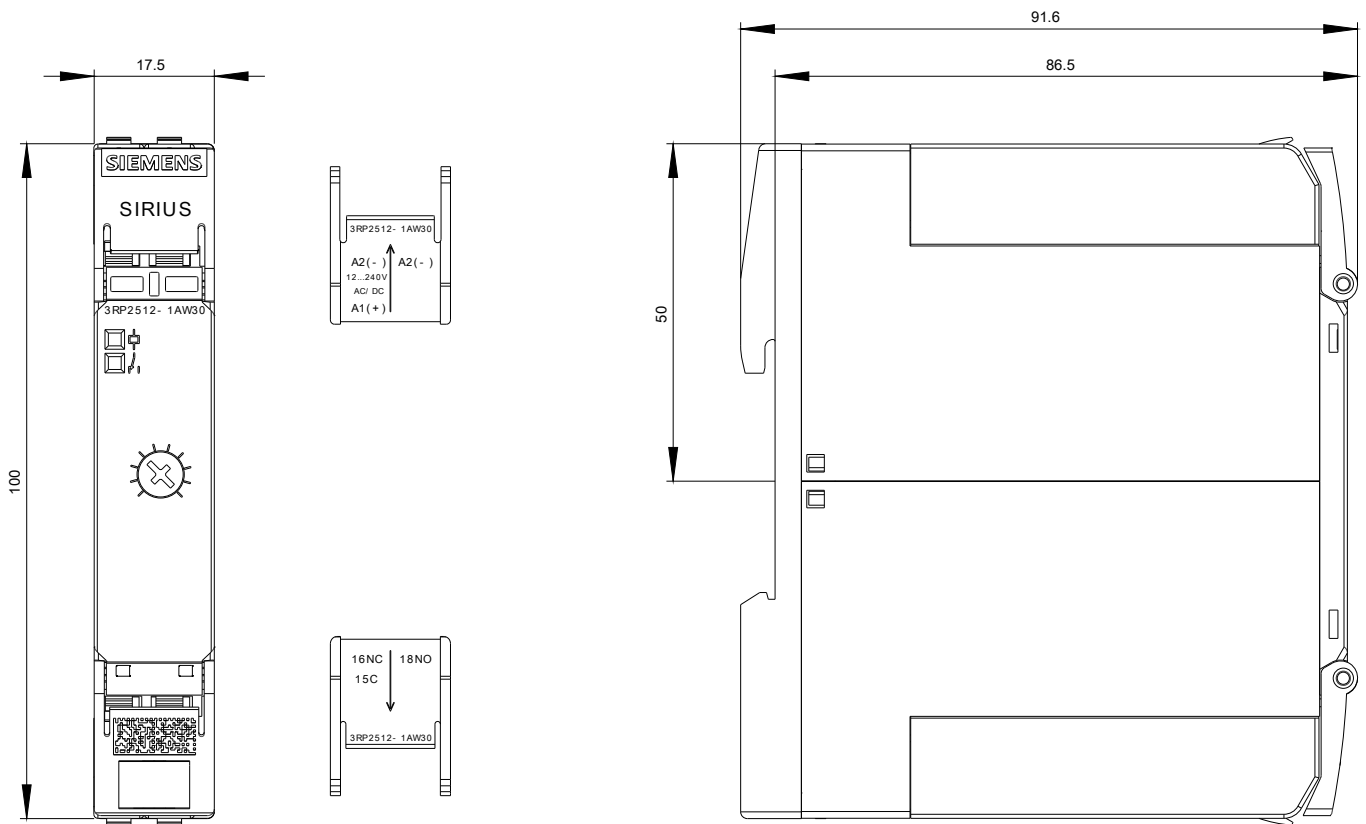
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2512-1AW30>

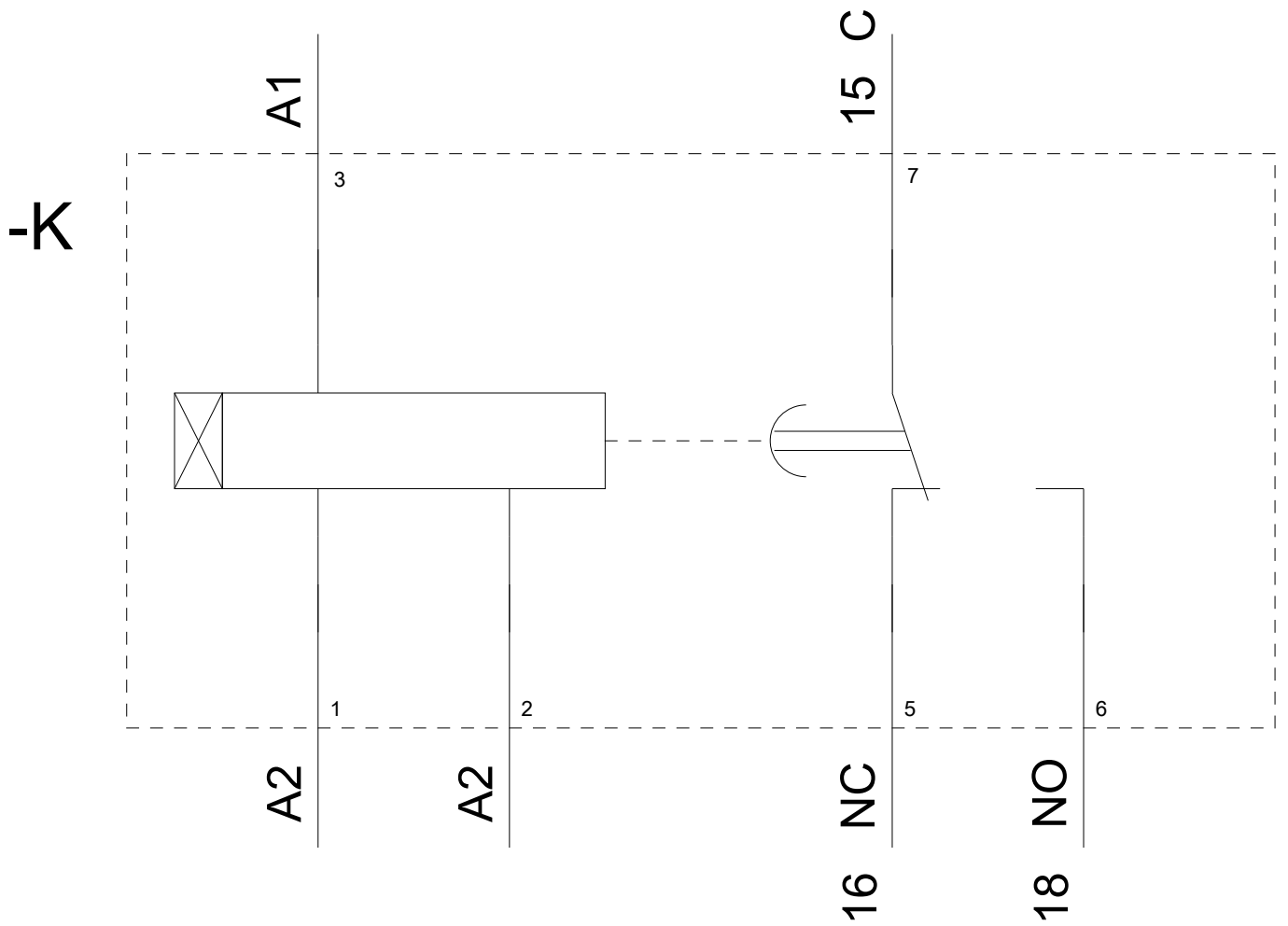
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2512-1AW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RP2512-1AW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2512-1AW30&lang=en)





last modified:

05/17/2018