

Timing relay, Multifunction 1 NO semiconductor 13 functions 7 time ranges (0.05 s...100 h) 12-240 V AC/DC at 50/60 Hz AC with LED, Screw terminal



Figure similar

Article number		
Product brand name		SIRIUS
Product designation		timing relay
Design of the product		13 functions
Product type designation		3RP25

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

<b>Surge voltage resistance rated value</b>	V	4 000
<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		300 000
<b>Adjustable time</b>	s	0.05 ... 100 h
<b>Relative setting accuracy relating to full-scale value</b>	%	5
<b>Thermal current</b>	A	1
<b>Minimum ON period</b>	ms	35
<b>Recovery time</b> • Reference identifier acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 • Reference identifier acc. to DIN EN 61346-2 • Reference identifier acc. to DIN EN 81346-2	ms	400 K  K 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 • at 60 Hz	V V	12 ... 240 12 ... 240
<b>Control supply voltage 1</b> • at DC	V	12 ... 240
<b>Control supply voltage frequency 1</b>	Hz	50 ... 60
<b>Operating range factor control supply voltage rated value at DC</b> • initial value • Full-scale value		0.85 1.1
<b>Operating range factor control supply voltage rated value at AC at 50 Hz</b> • initial value • Full-scale value		0.85 1.1
<b>Operating range factor control supply voltage rated value at AC at 60 Hz</b> • initial value • Full-scale value		0.85 1.1
<b>Inrush current peak</b> • at 24 V • at 240 V	A A	0.5 5

<b>Duration of inrush current peak</b>		
• at 24 V	ms	0.4
• at 240 V	ms	0.5
<b>Switching Function</b>		
<b>Switching function</b>		
• ON-delay		Yes
• ON-delay/instantaneous contact		No
• passing make contact		Yes
• passing make contact/instantaneous contact		No
• OFF delay		No
<b>Switching function</b>		
• flashing symmetrically starting with interval/instantaneous		No
• flashing symmetrically starting with interval		Yes
• flashing symmetrically starting with pulse/instantaneous		No
• flashing symmetrically starting with pulse		Yes
• flashing asymmetrically starting with interval		No
• flashing asymmetrically starting with pulse		No
<b>Switching function</b>		
• star-delta circuit with delay time		No
• star-delta circuit		No
<b>Switching function with control signal</b>		
• additive ON delay		Yes
• passing break contact		Yes
• passing break contact/instantaneous		No
• OFF delay		Yes
• OFF delay/instantaneous		No
• pulse delayed		Yes
• pulse delayed/instantaneous		No
• pulse-shaping		Yes
• pulse-shaping/instantaneous		No
• additive ON delay/instantaneous		No
• ON-delay/OFF-delay/instantaneous		No
• passing make contact		Yes
• passing make contact/instantaneous contact		No
<b>Switching function of interval relay with control signal</b>		
• retrotriggerable with deactivated control signal/instantaneous contact		No
• retrotriggerable with activated control signal		Yes
• retrotriggerable with activated control signal/instantaneous contact		No

• retriggerable with deactivated control signal		Yes
<b>Design of the control terminal non-floating</b>		Yes
<b>Short-circuit protection</b>		
<b>Design of the fuse link</b>		
• for short-circuit protection of the auxiliary switch required		fuse gL/gG: 4 A
<b>Auxiliary circuit</b>		
<b>Number of NC contacts</b>		
• delayed switching		0
<b>Number of NO contacts</b>		
• delayed switching		1
<b>Number of CO contacts</b>		
• delayed switching		0
<b>Operating current of auxiliary contacts at AC-15</b>		
• at 24 V	A	1
• at 250 V	A	1
<b>Operating current of auxiliary contacts at DC-12</b>		
• at 24 V	A	1
• at 125 V	A	1
• at 250 V	A	1
<b>Operating frequency with 3RT2 contactor maximum</b>	1/h	5 000
<b>Influence of the surrounding temperature</b>		1% in the whole temperature range to the set runtime
<b>Power supply influence</b>		1% in the whole voltage range to the set runtime
<b>Switching capacity current with inductive load</b>	A	0.01 ... 1
<b>Inputs/ Outputs</b>		
<b>Product function</b>		
• at the relay outputs Switchover delayed/without delay		No
• non-volatile		No
<b>Residual current</b>		
• maximum	mA	0.5
<b>Electromagnetic compatibility</b>		
<b>EMI immunity</b>		
• acc. to IEC 61812-1		EN 61000-6-2
<b>Conducted interference</b>		
• due to burst acc. to IEC 61000-4-4		2 kV network connection / 1 kV control connection
• due to conductor-earth surge acc. to IEC 61000-4-5		2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5		1 kV
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>		10 V/m

Electrostatic discharge acc. to IEC 61000-4-2		4 kV contact discharge / 8 kV air discharge
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### Safety related data

Protection against electrical shock		finger-safe
Category acc. to EN 954-1		none

### Connections/Terminals

<b>Product function</b> <ul style="list-style-type: none"> <li>removable terminal for auxiliary and control circuit</li> </ul>		Yes
<b>Type of electrical connection</b> <ul style="list-style-type: none"> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals
<b>Type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded with core end processing</li> <li>at AWG conductors solid</li> <li>at AWG conductors stranded</li> </ul>		1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> ) 1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) 1x (20 ... 12), 2x (20 ... 14) 1x (20 ... 12), 2x (20 ... 14)
<b>Connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded with core end processing</li> </ul>	mm <sup>2</sup> mm <sup>2</sup>	0.5 ... 4 0.5 ... 4
<b>AWG number as coded connectable conductor cross section</b> <ul style="list-style-type: none"> <li>solid</li> <li>stranded</li> </ul>		20 ... 12 20 ... 14
<b>Tightening torque</b>	N·m	0.6 ... 0.8
<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>	mm	100
<b>Width</b>	mm	17.5
<b>Depth</b>	mm	90
<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> <li>Backwards</li> </ul> </li> </ul>	mm mm mm mm mm  mm mm	0 0 0 0 0  0 0






- upwards
- at the side
- downwards
- for live parts
  - forwards
  - Backwards
  - upwards
  - downwards
  - at the side





mm	0
mm	0
mm	0
mm	0
mm	0
mm	0
mm	0
mm	0
mm	0

#### Ambient conditions

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

#### Certificates/approvals

General Product Approval		Declaration of Conformity	Test Certificates	Marine / Shipping
 CSA	 UL	 EAC	 EG-Konf.	<a href="#">Type Test Certificates/Test Report</a>  LRS

Marine / Shipping				other
 PRS	 RINA	 RMRS	 DNVGL.COM/AF	<a href="#">Confirmation</a>

#### 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=3RP2505-1CW30>

**Cax online generator**

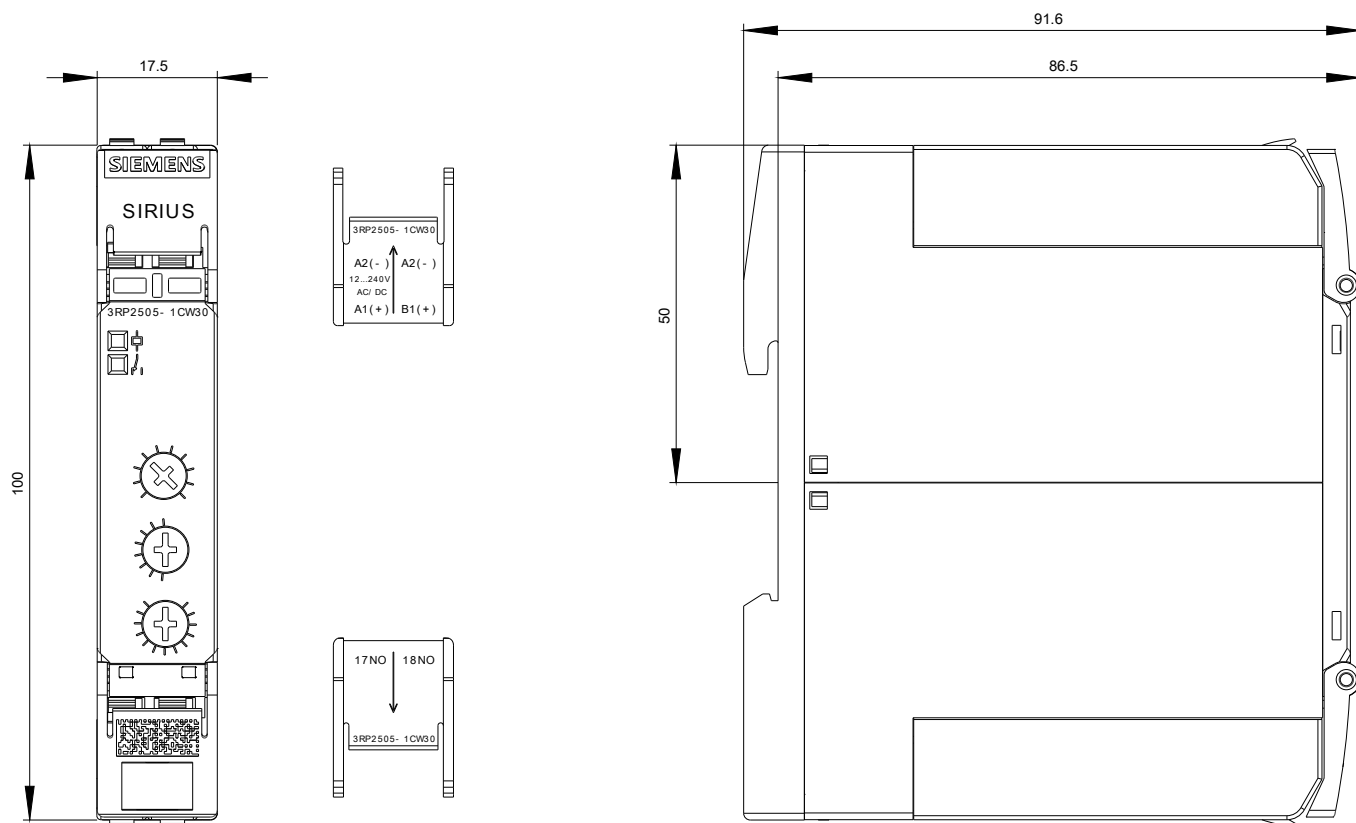
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-1CW30>

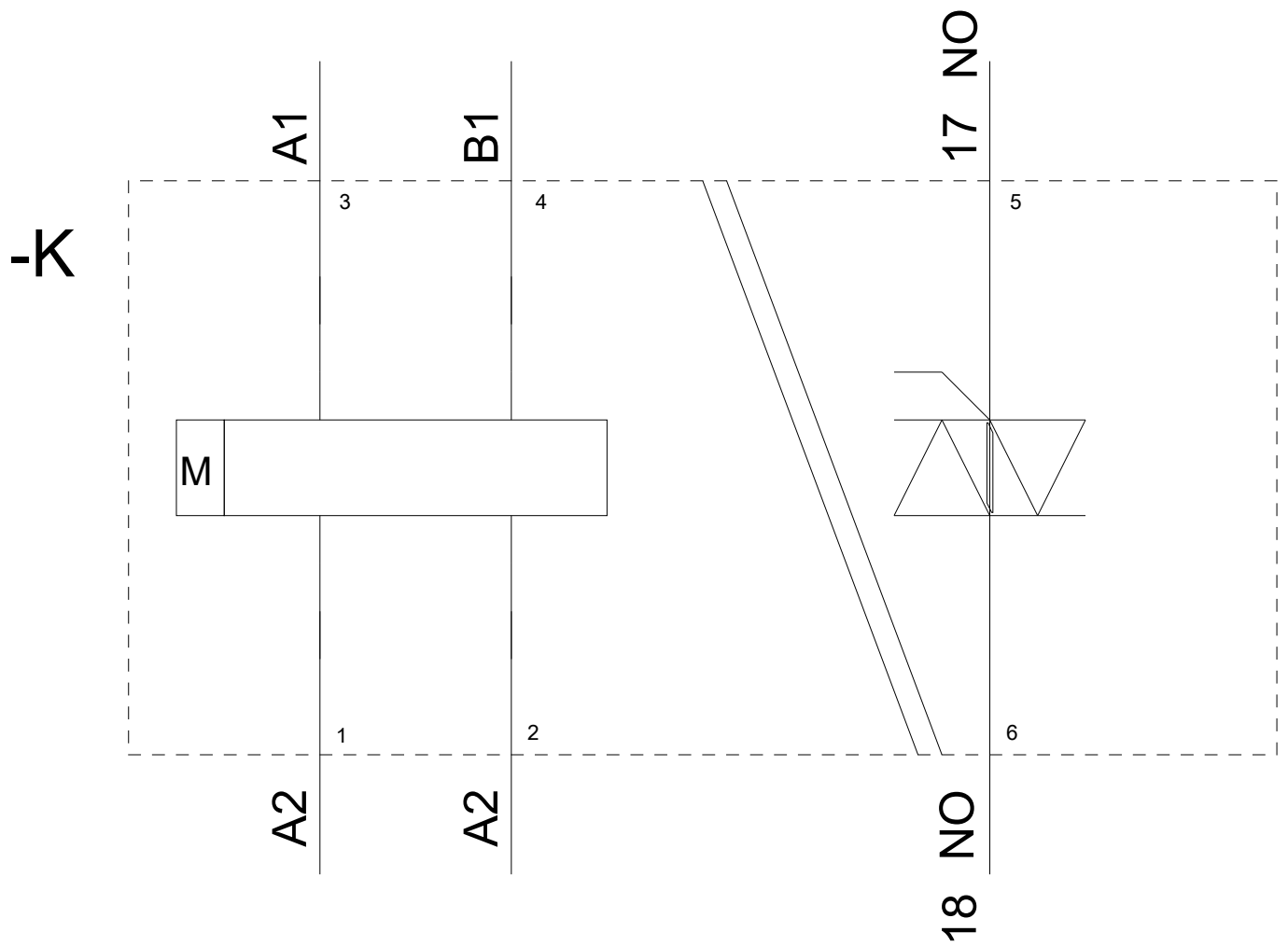
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1CW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RP2505-1CW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-1CW30&lang=en)





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