



Timing relay, Multifunction 2 change-over contacts, 13 functions Positively driven Relay contacts 24...240 V AC/DC at 50/60 Hz AC 7 time ranges (0.05 s...100 h) with LED, Screw terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	timing relay
<b>design of the product</b>	13 functions, suitable for railway applications
<b>product type designation</b>	3RP25
<b>General technical data</b>	
<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
insulation voltage 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
shock resistance acc. to IEC 60068-2-27	11g / 15 ms
vibration resistance acc. to IEC 60068-2-6	10 ... 55 Hz / 0.35 mm
mechanical service life (switching cycles) typical	10 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	100 000
<b>adjustable time</b>	0.05 s ... 100 h
<b>relative setting accuracy relating to full-scale value</b>	5 %
<b>thermal current</b>	5 A
<b>minimum ON period</b>	35 ms
<b>recovery time</b>	250 ms
<b>reference code acc. to IEC 81346-2</b>	K
<b>relative repeat accuracy</b>	1 %
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC/DC
<b>control supply voltage 1 at AC</b>	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
<b>control supply voltage frequency 1</b>	50 ... 60 Hz
• control supply voltage 1 at DC	24 ... 240 V
<b>operating range factor control supply voltage rated value at DC</b>	
• initial value	0.7

<ul style="list-style-type: none"> <li>• full-scale value</li> </ul>	1.1
<b>operating range factor control supply voltage rated value at AC at 50 Hz</b> <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.7 1.1
<b>operating range factor control supply voltage rated value at AC at 60 Hz</b> <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.7 1.1
<b>inrush current peak</b> <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 240 V</li> </ul>	0.5 A 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>	0.4 ms 0.5 ms
<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>	Yes No Yes No No
<b>switching function</b> <ul style="list-style-type: none"> <li>• flashing symmetrically with interval start/instantaneous</li> <li>• flashing symmetrically with interval start</li> <li>• flashing symmetrically with pulse start/instantaneous</li> <li>• flashing symmetrically with pulse start</li> <li>• flashing asymmetrically with interval start</li> <li>• flashing asymmetrically with pulse start</li> </ul>	No Yes No Yes No No
<b>switching function</b> <ul style="list-style-type: none"> <li>• star-delta circuit with delay time</li> <li>• star-delta circuit</li> </ul>	No No
<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>	Yes Yes No Yes No Yes No Yes No No No Yes No
<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 switched-on control signal</li> <li>• retrotriggerable with switched-on control signal/instantaneous contact</li> <li>• retriggerable with deactivated control signal</li> </ul>	No Yes No Yes
<b>design of the control terminal non-floating</b>	Yes
<b>Short-circuit protection</b>	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 4 A
<b>Auxiliary circuit</b>	

<b>material of switching contacts</b>	AgSnO <sub>2</sub>
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts delayed switching	2
<b>operational current of auxiliary contacts at AC-15</b>	
• at 24 V	3 A
• at 250 V	3 A
<b>operational current of auxiliary contacts at DC-13</b>	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
<b>operating frequency with 3RT2 contactor maximum</b>	5 000 1/h
<b>contact reliability of auxiliary contacts</b>	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
<b>contact rating of auxiliary contacts according to UL</b>	R300 / B300
<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>	0.01 ... 3 A
<b>Inputs/ Outputs</b>	
<b>product function</b>	
• at the relay outputs switchover delayed/without delay	No
• non-volatile	No
<b>Electromagnetic compatibility</b>	
EMC immunity 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-based interference acc. to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge acc. to IEC 61000-4-2</b>	4 kV contact discharge / 8 kV air discharge
<b>Safety related data</b>	
<b>touch protection against electrical shock</b>	finger-safe
<b>type of insulation</b>	Basic insulation
<b>category acc. to EN 954-1</b>	none
<b>Connections/ Terminals</b>	
product function removable terminal for auxiliary and control circuit	Yes
type of electrical connection for auxiliary and control circuit	screw-type terminals
<b>type of connectable conductor cross-sections</b>	
• solid	1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing	1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
• at AWG cables solid	1x (20 ... 12), 2x (20 ... 14)
• at AWG cables stranded	1x (20 ... 12), 2x (20 ... 14)
• connectable conductor cross-section solid	0.5 ... 4 mm <sup>2</sup>
• connectable conductor cross-section finely stranded with core end processing	0.5 ... 4 mm <sup>2</sup>
• AWG number as coded connectable conductor cross section solid	20 ... 12
• AWG number as coded connectable conductor cross section stranded	20 ... 14
<b>tightening torque</b>	0.6 ... 0.8 N·m
<b>design of the thread of the connection screw</b>	M3
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm standard mounting rail
<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 0 mm</li> <li>— backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— at the side 0 mm</li> <li>— downwards 0 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 0 mm</li> </ul> </li> </ul>	

<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<ul style="list-style-type: none"> <li>• ambient temperature during operation -40 ... +70 °C</li> <li>• ambient temperature during storage -40 ... +85 °C</li> <li>• ambient temperature during transport -40 ... +85 °C</li> </ul>	
relative humidity during operation	10 ... 95 %

<b>Certificates/ approvals</b>		
General Product Approval	EMC	Declaration of Conformity



Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Confirmation](#)

**Further information**

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=3RP2505-1RW30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-1RW30>

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

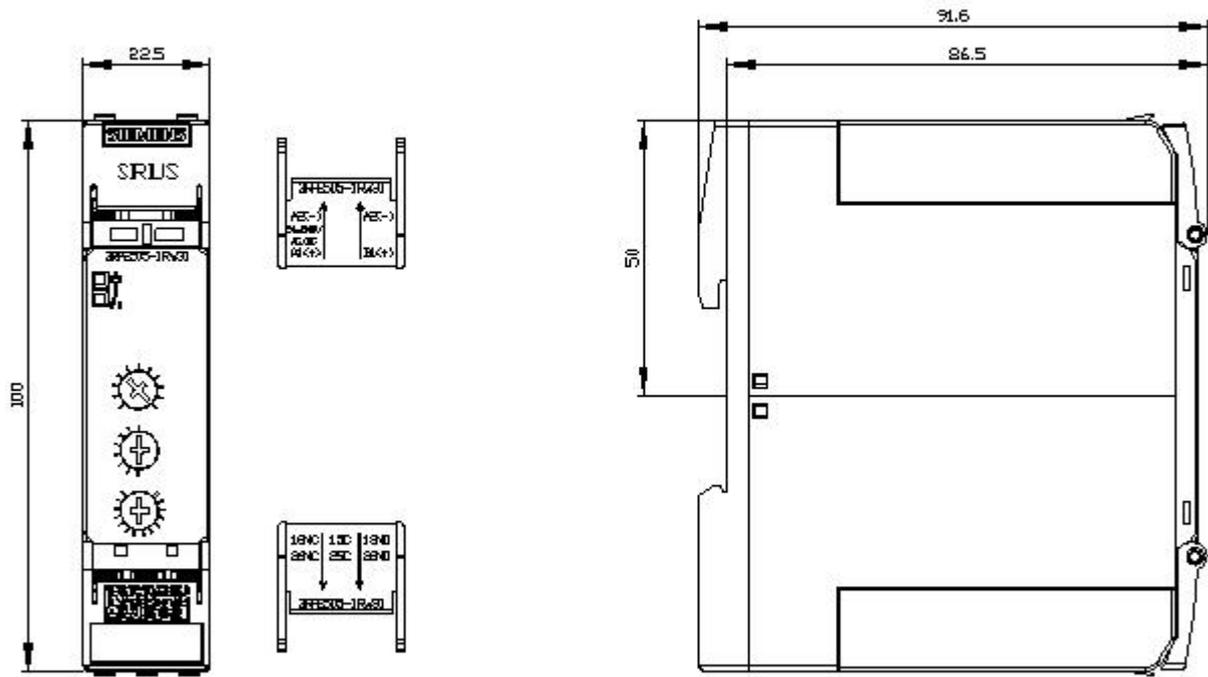
<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1RW30>

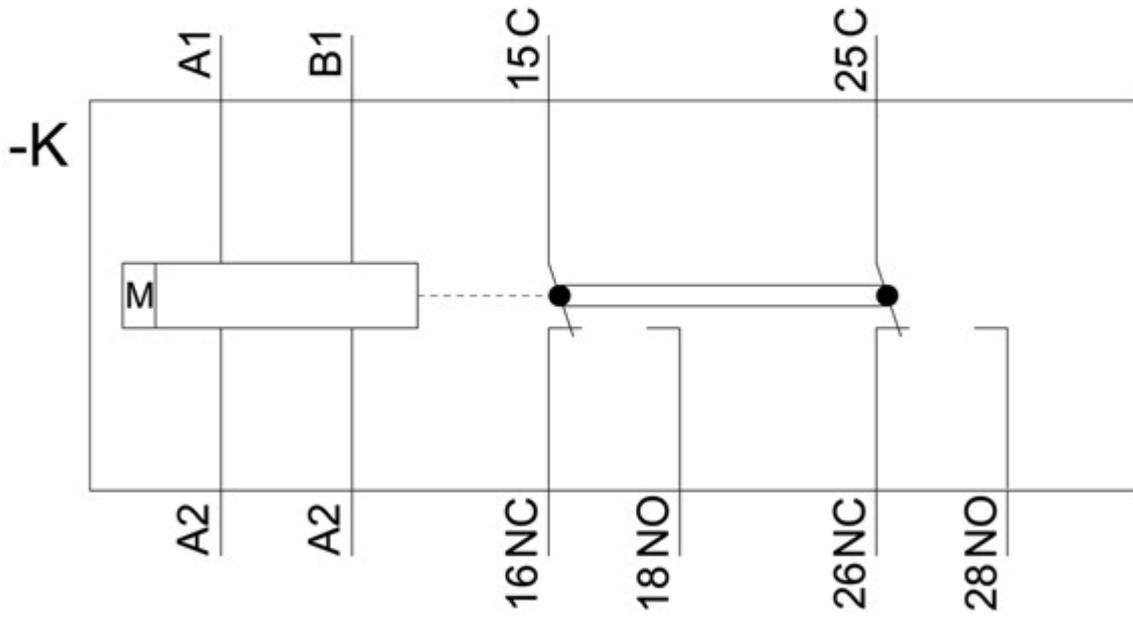
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RP2505-1RW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-1RW30&lang=en)

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1RW30/manual>





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