



Timing relay, Multifunction 2 change-over contacts, 27 functions 7 time ranges (0.05 s...100 h) 24 V AC/DC at 50/60 Hz AC with LED Spring-type terminal (push-in)

|   |   |
|---|---|
| product brand name  | SIRIUS  |
| product designation   | timing relay  |
| design of the product   | 27 functions  |
| product type designation  | 3RP25   |
| <b>General technical data</b>   |   |
| product feature protective coating on printed-circuit board   | No  |
| product component   |   |
| • relay output  | Yes   |
| • semi-conductor output   | No  |
| product extension required remote control   | No  |
| product extension optional remote control   | No  |
| power loss [W] maximum  | 2 W   |
| insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value | 300 V   |
| test voltage for isolation test   | 2.5 kV  |
| degree of pollution   | 3   |
| surge voltage resistance rated value  | 4 000 V   |
| shock resistance according to IEC 60068-2-27  | 11 g / 15 ms  |
| vibration resistance according to IEC 60068-2-6   | 10 ... 55 Hz / 0.35 mm  |
| mechanical service life (operating cycles) typical  | 10 000 000  |
| electrical endurance (operating cycles) at AC-15 at 230 V typical   | 100 000   |
| adjustable time   | 0.05 s ... 100 h  |
| relative setting accuracy relating to full-scale value  | 5 %; +/-  |
| thermal current   | 5 A   |
| ON period/maximum minimum   | 35 ms   |
| recovery time   | 150 ms  |
| reference code according to IEC 81346-2   | K   |
| relative repeat accuracy  | 1 %; +/-  |
| 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  |
| Substance Prohibitance (day/month/year)   | 09/12/2014  |
| SVHC substance name   | Lead CAS-No. 7439-92-1<br>Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5<br>Melamine CAS-No. 108-78-1<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 |
| Net Weight  | 0.156 kg  |
| <b>Control circuit/ Control</b>   |   |
| type of voltage of the control supply voltage   | AC/DC   |
| control supply voltage at AC  |   |

|  |              |
|--|--------------|
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul> | 24 V<br>24 V |
| <b>control supply voltage 1 at AC</b>  |              |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul> | 24 V<br>24 V |
| <b>control supply voltage frequency 1</b>  | 50 ... 60 Hz |
| <b>control supply voltage at DC rated value</b>  | 24 V         |
| <b>control supply voltage 1 at DC rated value</b>  | 24 V         |
| <b>operating range factor control supply voltage rated value at DC</b>                                   |              |
| <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>            | 0.85<br>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>            | 0.85<br>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>            | 0.85<br>1.1  |
| <b>inrush current peak</b>   |              |
| <ul style="list-style-type: none"> <li>• at 24 V</li> </ul>  | 2 A          |
| <b>duration of inrush current peak</b>   |              |
| <ul style="list-style-type: none"> <li>• at 24 V</li> </ul>  | 1 ms         |

### Switching Function

|  |  |
|--|--|
| <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<br>Yes<br>Yes<br>Yes<br>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>  | Yes<br>Yes<br>Yes<br>Yes<br>No<br>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<br>Yes  |
| <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<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes |
| <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</li> </ul>  | Yes<br>Yes<br>Yes  |

|   |  |
|---|--|
| signal/instantaneous contact  |  |
| • retriggerable with deactivated control signal                                       | 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>   | AgSnO2   |
| <b>number of NC contacts</b>  |  |
| • delayed switching   | 0  |
| • instantaneous contact   | 0  |
| <b>number of NO contacts</b>  |  |
| • delayed switching   | 0  |
| • instantaneous contact   | 0  |
| <b>number of CO contacts</b>  |  |
| • delayed switching   | 2  |
| • instantaneous contact   | 0  |
| <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>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                               | Yes  |
| • non-volatile  | No   |
| <b>ampacity of the output relay at DC-13</b>  |  |
| • at 24 V   | 1 A  |
| • at 125 V  | 0.2 A  |
| <b>Electromagnetic compatibility</b>  |  |
| EMC emitted interference according to IEC 61812-1                                     | ambience A (industrial sector)   |
| EMC immunity according to IEC 61812-1   | corresponds to degree of severity 3  |
| <b>conducted interference</b>   |  |
| • due to burst according to IEC 61000-4-4   | 2 kV network connection / 1 kV control connection                                  |
| • due to conductor-earth surge according to IEC 61000-4-5                             | 2 kV   |
| • due to conductor-conductor surge according to IEC 61000-4-5                         | 1 kV   |
| <b>field-based interference according to IEC 61000-4-3</b>                            | 10 V/m   |
| <b>electrostatic discharge according to IEC 61000-4-2</b>                             | 4 kV contact discharge / 8 kV air discharge  |
| <b>Safety related data</b>  |  |
| category according to EN 954-1  | none   |
| <b>Electrical Safety</b>  |  |
| <b>protection class IP on the front according to IEC 60529</b>                        | IP20   |
| <b>type of insulation</b>   | Basic insulation   |
| <b>Connections/ Terminals</b>   |  |
| <b>product component removable terminal for auxiliary and control circuit</b>         | Yes  |
| <b>type of electrical connection</b>  | spring-loaded terminal (push-in)   |
| • for auxiliary and control circuit   | spring-loaded terminals (push-in)  |
| <b>type of connectable conductor cross-sections</b>                                   |  |
| • solid   | 1x (0.5 ... 4 mm <sup>2</sup> )  |
| • finely stranded with core end processing  | 1x (0.5 ... 2.5 mm <sup>2</sup> )  |
| • finely stranded without core end processing   | 0.5 ... 4 mm <sup>2</sup>  |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• for AWG cables solid</li> <li>• for AWG cables stranded</li> </ul>   | <p>1x (20 ... 12)<br/>20 ... 12</p>   |
| <b>connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul> | <p>0.5 ... 4 mm<sup>2</sup><br/>0.5 ... 2.5 mm<sup>2</sup><br/>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<br/>20 ... 12</p>  |

**Installation/ mounting/ dimensions**

|  |   |
|--|---|
| <b>mounting position</b>   | any   |
| <b>fastening method</b>  | screw and snap-on mounting onto 35 mm DIN 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</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> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <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> </ul> | <p>0 mm<br/>0 mm<br/>0 mm<br/>0 mm<br/>0 mm<br/><br/>0 mm<br/>0 mm<br/>0 mm<br/>0 mm<br/>0 mm<br/><br/>0 mm<br/>0 mm<br/>0 mm<br/>0 mm<br/>0 mm</p> |

**Ambient conditions**

|   |   |
|---|---|
| installation altitude at height above sea level maximum   | 2 000 m   |
| <b>ambient temperature</b> <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul> | <p>-25 ... +60 °C<br/>-40 ... +85 °C<br/>-40 ... +85 °C</p> |
| relative humidity during operation  | 10 ... 95 %   |

**Approvals Certificates**

|                    |                                 |
|--------------------|---------------------------------|
| <b>Environment</b> | <b>General Product Approval</b> |
|--------------------|---------------------------------|

[Environmental Con-  
firmations](#)



|            |                          |                             |
|------------|--------------------------|-----------------------------|
| <b>EMV</b> | <b>Test Certificates</b> | <b>Maritime application</b> |
|------------|--------------------------|-----------------------------|



[Type Test Certificates/Test Report](#)



|                             |              |
|-----------------------------|--------------|
| <b>Maritime application</b> | <b>other</b> |
|-----------------------------|--------------|



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=3RP2505-2BB30>

Cax online generator

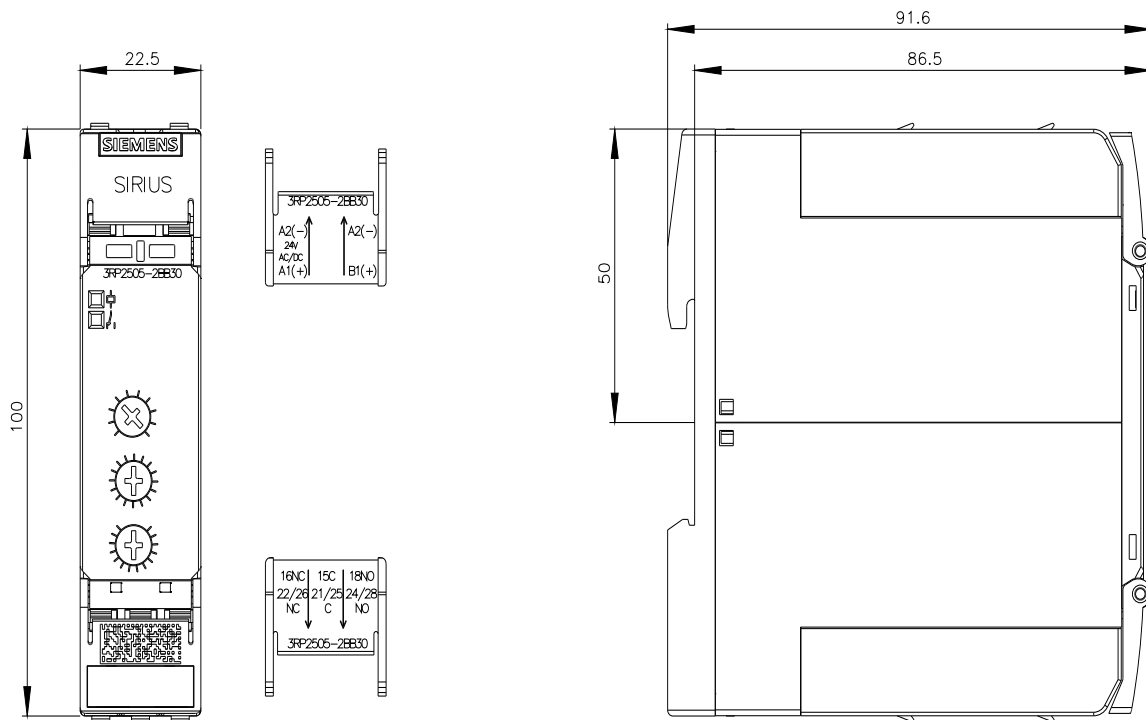
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-2BB30>

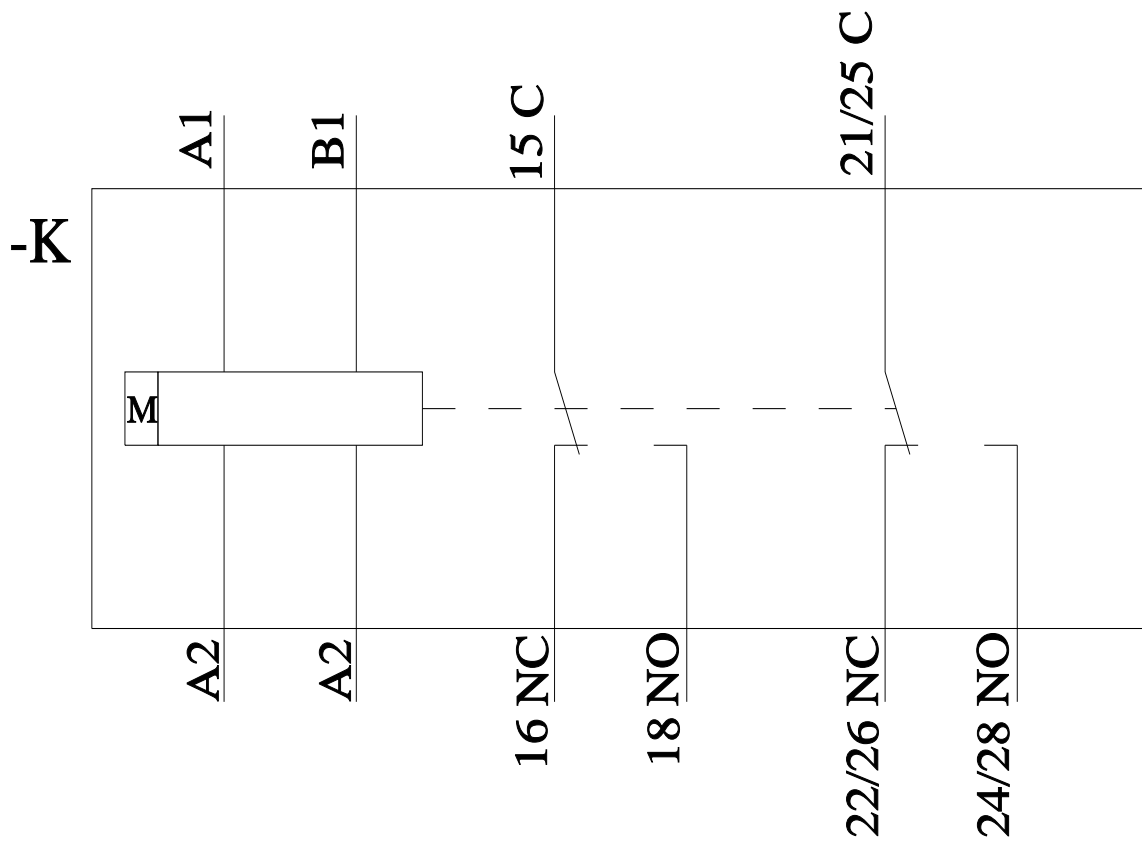
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2BB30>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RP2505-2BB30&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-2BB30&lang=en)





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