



Timing relay, electronic OFF delay without control signal or smooth passing make contact non-volatile 7 time ranges 0.05...600 s 12-240 V AC/DC, 2 change-over contacts at 50/60 Hz AC with LED, Screw terminal

|                                                                                                               |                                                                             |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| product brand name                                                                                            | SIRIUS                                                                      |
| product designation                                                                                           | timing relay                                                                |
| design of the product                                                                                         | rückfallverzögert ohne Steuersignal, nullspannungssicher, einschaltwischend |
| product type designation                                                                                      | 3RP25                                                                       |
| <b>General technical data</b>                                                                                 |                                                                             |
| 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                                                                     |
| protection class IP                                                                                           | IP20                                                                        |
| shock resistance according to IEC 60068-2-27                                                                  | 11g / 15 ms                                                                 |
| vibration resistance according 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                                                                     |
| adjustable time                                                                                               | 0.05 ... 600 s                                                              |
| relative setting accuracy relating to full-scale value                                                        | 5 %; +/-                                                                    |
| thermal current                                                                                               | 5 A                                                                         |
| minimum ON period                                                                                             | 250 ms                                                                      |
| recovery time                                                                                                 | 250 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 Prohibittance (Date)                                                                                | 09/12/2014                                                                  |
| <b>Control circuit/ Control</b>                                                                               |                                                                             |
| type of voltage of the control supply voltage                                                                 | AC/DC                                                                       |
| control supply voltage 1 at AC                                                                                |                                                                             |
| • at 50 Hz                                                                                                    | 12 ... 240 V                                                                |
| • at 60 Hz                                                                                                    | 12 ... 240 V                                                                |
| control supply voltage frequency 1                                                                            | 50 ... 60 Hz                                                                |
| control supply voltage 1                                                                                      |                                                                             |

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| <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12 ... 240 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> <li>• at 240 V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.4 A<br>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>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.3 ms<br>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>                                                                                                                                                                                                                                                                                                                              | No<br>No<br>Yes<br>No<br>Yes                                                     |
| <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<br>No<br>No<br>No<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>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> | No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>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<br>No<br>No<br>No                                                             |
| <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>                                                                 |
| <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>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                                                                | Yes                                                                                |
| <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>                                                    |                                                                                    |
| <b>protection class IP on the front according to IEC 60529</b>                | IP20                                                                               |
| <b>type of insulation</b>                                                     | Basic insulation                                                                   |
| <b>category according to EN 954-1</b>                                         | none                                                                               |
| <b>Connections/ Terminals</b>                                                 |                                                                                    |
| <b>product component removable terminal for auxiliary and control circuit</b> | Yes                                                                                |
| <b>type of electrical connection for auxiliary and control circuit</b>        | 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)                                                     |
| <b>connectable conductor cross-section</b>                                    |                                                                                    |
| • solid                                                                       | 0.5 ... 4 mm <sup>2</sup>                                                          |
| • finely stranded with core end processing                                    | 0.5 ... 4 mm <sup>2</sup>                                                          |
| <b>AWG number as coded connectable conductor cross section</b>                |                                                                                    |
| • solid                                                                       | 20 ... 12                                                                          |
| • stranded                                                                    | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| mounting position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | any                                                                                                                          |
| fastening method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | screw and snap-on mounting onto 35 mm standard mounting rail                                                                 |
| height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 100 mm                                                                                                                       |
| width                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 22.5 mm                                                                                                                      |
| depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 90 mm                                                                                                                        |
| required spacing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                              |
| <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> | 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 |

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

| Certificates/ approvals  |     |
|--------------------------|-----|
| General Product Approval | EMC |



[Confirmation](#)



| Declaration of Conformity | Test Certificates | Marine / Shipping                                              |
|---------------------------|-------------------|----------------------------------------------------------------|
| <br>EG-Konf.              |                   | <a href="#">Type Test Certificates/Test Report</a><br><br><br> |

| Marine / Shipping | other                        |
|-------------------|------------------------------|
| <br><br>          | <a href="#">Confirmation</a> |

| Further information                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------|
| Information- and Downloadcenter (Catalogs, Brochures,...)<br><a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a> |

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2540-1BW30>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2540-1BW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-1BW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RP2540-1BW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2540-1BW30&lang=en)

**Characteristic: Derating**

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-1BW30/manual>

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