



Timing relay, electronic on-delay 2 change-over contacts, 7 time ranges 0.05 s...100 h 24 V AC/DC at 50/60 Hz AC with LED, screw terminal

|   |  |
|---|--|
| product brand name  | SIRIUS   |
| product designation   | timing relay   |
| design of the product   | slow-operating                                       |
| 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  | 11g / 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  |
| 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 (Date)   | 09/12/2014   |
| Weight  | 0.163 kg   |
| <b>Control circuit/ Control</b>   |  |
| type of voltage of the control supply voltage   | AC/DC  |
| control supply voltage 1 at AC  |  |
| • at 50 Hz rated value  | 24 V   |
| • at 60 Hz rated value  | 24 V   |
| control supply voltage frequency 1  | 50 ... 60 Hz   |
| control supply voltage 1 at DC rated value  | 24 V   |
| operating range factor control supply voltage rated value at DC   |  |
| • 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   | 2 A                |
| <b>duration of inrush current peak</b>  |                    |
| • at 24 V   | 1 ms               |
| <b>Switching Function</b>   |                    |
| <b>switching function</b>   |                    |
| • ON-delay  | Yes                |
| • ON-delay/instantaneous contact  | No                 |
| • passing make contact  | No                 |
| • passing make contact/instantaneous contact  | No                 |
| • OFF delay   | No                 |
| <b>switching function</b>   |                    |
| • flashing symmetrically with interval start/instantaneous                            | No                 |
| • flashing symmetrically with interval start  | No                 |
| • flashing symmetrically with pulse start/instantaneous                               | No                 |
| • flashing symmetrically with pulse start   | No                 |
| • flashing asymmetrically with interval start   | No                 |
| • flashing asymmetrically with pulse start  | 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   | No                 |
| • passing break contact   | No                 |
| • passing break contact/instantaneous   | No                 |
| • OFF delay   | No                 |
| • OFF delay/instantaneous   | No                 |
| • pulse delayed   | No                 |
| • pulse delayed/instantaneous   | No                 |
| • pulse-shaping   | No                 |
| • pulse-shaping/instantaneous   | No                 |
| • additive ON-delay/instantaneous   | No                 |
| • ON-delay/OFF-delay/instantaneous  | No                 |
| • passing make contact  | No                 |
| • 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 switched-on control signal                                    | No                 |
| • retrotriggerable with switched-on control signal/instantaneous contact              | No                 |
| • retriggerable with deactivated control signal                                       | 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>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                       | No   |
| • non-volatile  | No   |
| <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   |
| Electrical Safety   |  |
| <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 for auxiliary and control circuit</b>        | screw-type terminals   |
| <b>type of connectable conductor cross-sections</b>                           |  |
| • solid   | 1x (0.5 ... 4 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> )                 |
| • for AWG cables solid  | 1x (20 ... 12), 2x (20 ... 14)   |
| • for 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   |
| <b>Installation/ mounting/ dimensions</b>                                     |  |
| <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>   |  |
| • with side-by-side mounting  |  |
| — forwards  | 0 mm   |
| — backwards   | 0 mm   |

|                      |      |
|----------------------|------|
| — upwards            | 0 mm |
| — downwards          | 0 mm |
| — at the side        | 0 mm |
| • for grounded parts |      |
| — forwards           | 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

|   |                |
|---|----------------|
| installation altitude at height above sea level maximum | 2 000 m        |
| ambient temperature                                     |                |
| • during operation                                      | -25 ... +60 °C |
| • during storage  | -40 ... +85 °C |
| • during transport                                      | -40 ... +85 °C |
| relative humidity during operation                      | 10 ... 95 %    |

#### Approvals Certificates

|                          |     |
|--------------------------|-----|
| General Product Approval | EMV |
|--------------------------|-----|



| EMV | Test Certificates                  | Maritime application |
|-----|------------------------------------|----------------------|
| KC  | Type Test Certificates/Test Report |                      |

| Maritime application | other        | Environment                 |
|----------------------|--------------|-----------------------------|
|                      | Confirmation | Environmental Confirmations |

#### 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=3RP2525-1BB30>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAxorder/default.aspx?lang=en&mlfb=3RP2525-1BB30>

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

<https://support.industry.siemens.com/cs/ww/en/pb/3RP2525-1BB30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RP2525-1BB30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2525-1BB30&lang=en)



