

Timing relay, Multifunction 1 change-over contact, 13 functions 7 time ranges (0.05 s...100 h) 12...240 V AC/DC at 50/60 Hz AC with LED, Screw terminal



| | |
|--------------------------|--------------|
| 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 | Yes |
| • semi-conductor output | No |
| Product extension required remote control | No |
| Product extension optional remote control | No |
| 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 | |

| | |
|---|------------------------|
| • 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 |
| Adjustable time | 0.05 s ... 100 h |
| Relative setting accuracy relating to full-scale value | 5 % |
| Thermal current | 5 A |
| Minimum ON period | 35 ms |
| Recovery time | 250 ms |
| Reference code acc. to DIN EN 81346-2 | K |
| Relative repeat accuracy | 1 % |

Control circuit/ Control

| | |
|---|--------------|
| 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 | |
| • at DC | 12 ... 240 V |
| Operating range factor control supply voltage rated value at DC | |
| • initial value | 0.8 |
| • Full-scale value | 1.1 |
| Operating range factor control supply voltage rated value at AC at 50 Hz | |
| • initial value | 0.8 |
| • Full-scale value | 1.1 |
| Operating range factor control supply voltage rated value at AC at 60 Hz | |
| • initial value | 0.8 |
| • Full-scale value | 1.1 |
| Inrush current peak | |
| • at 24 V | 0.4 A |
| • at 240 V | 5 A |
| Duration of inrush current peak | |
| • at 24 V | 0.3 ms |
| • at 240 V | 0.5 ms |

Switching Function

| | |
|---------------------------|--|
| Switching function | |
|---------------------------|--|

| | |
|--|-----|
| • ON-delay | Yes |
| • ON-delay/instantaneous contact | No |
| • passing make contact | Yes |
| • passing make contact/instantaneous contact | No |
| • OFF delay | No |
| Switching function | |
| • 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 |
| Switching function | |
| • star-delta circuit with delay time | No |
| • star-delta circuit | No |
| Switching function with control signal | |
| • 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 |
| Switching function of interval relay with control signal | |
| • 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 |
| Design of the control terminal non-floating | Yes |
| Short-circuit protection | |
| Design of the fuse link | |

- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 4 A

Auxiliary circuit

| | |
|---|--|
| Material of switching contacts | AgSnO ₂ |
| Number of NC contacts | |
| • delayed switching | 0 |
| Number of NO contacts | |
| • delayed switching | 0 |
| Number of CO contacts | |
| • delayed switching | 1 |
| Operating current of auxiliary contacts at AC-15 | |
| • at 24 V | 3 A |
| • at 250 V | 3 A |
| Operating current of auxiliary contacts at DC-13 | |
| • at 24 V | 1 A |
| • at 125 V | 0.2 A |
| • at 250 V | 0.1 A |
| Operating frequency with 3RT2 contactor maximum | 5 000 1/h |
| Contact reliability of auxiliary contacts | one incorrect switching operation of 100 million switching operations (17 V, 5 mA) |
| Contact rating of auxiliary contacts according to UL | R300 / B300 |
| 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 |
| Switching capacity current with inductive load | 0.01 ... 3 A |

Inputs/ Outputs

| | |
|---|----|
| Product function | |
| • at the relay outputs Switchover delayed/without delay | No |
| • non-volatile | No |

Electromagnetic compatibility

| | |
|---|---|
| EMI immunity | |
| • acc. to IEC 61812-1 | EN 61000-6-2 |
| Conducted interference | |
| • 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 |
| Field-bound parasitic coupling acc. to IEC 61000-4-3 | 10 V/m |
| Electrostatic discharge acc. to IEC 61000-4-2 | 4 kV contact discharge / 8 kV air discharge |

Safety related data

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|--|-------------|
| Protection against electrical shock | finger-safe |
|--|-------------|

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|--|--|
| Type of insulation | Basic insulation |
| Category acc. to EN 954-1 | none |
| Connections/ Terminals | |
| Product function <ul style="list-style-type: none"> removable terminal for auxiliary and control circuit | Yes |
| Type of electrical connection <ul style="list-style-type: none"> for auxiliary and control current circuit | screw-type terminals |
| Type of connectable conductor cross-sections <ul style="list-style-type: none"> solid finely stranded with core end processing at AWG conductors solid at AWG conductors stranded | 1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²) 1x (0.5 ... 4 mm ²), 2x (0.5 ... 1.5 mm ²) 1x (20 ... 12), 2x (20 ... 14) 1x (20 ... 12), 2x (20 ... 14) |
| Connectable conductor cross-section <ul style="list-style-type: none"> solid finely stranded with core end processing | 0.5 ... 4 mm ² 0.5 ... 4 mm ² |
| AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> solid stranded | 20 ... 12 20 ... 14 |
| Tightening torque | 0.6 ... 0.8 N·m |
| Design of the thread of the connection screw | M3 |
| Installation/ mounting/ dimensions | |
| Mounting position | any |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail |
| Height | 100 mm |
| Width | 17.5 mm |
| Depth | 90 mm |
| Required spacing <ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> forwards Backwards upwards downwards at the side for grounded parts <ul style="list-style-type: none"> forwards Backwards upwards at the side downwards for live parts | 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm |

| | |
|---------------|------|
| — 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 % |

Certificates/ approvals

| General Product Approval | EMC | Declaration of Conformity |
|---|---|--|
|  CCC |  EAC |  EG-Konf. |
|  CSA |  UL |  RCM |

| Declaration of Conformity | Test Certificates | Marine / Shipping |
|-------------------------------|--|---|
| Miscellaneous | Type Test Certificates/Test Report |  BUREAU VERITAS |
| | |  LRS |
| | |  PRS |
| | |  RINA |

| Marine / Shipping | other |
|---|------------------------------|
|  RMRS | Confirmation |
|  DNV-GL DNVGL.COM/AF | |

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

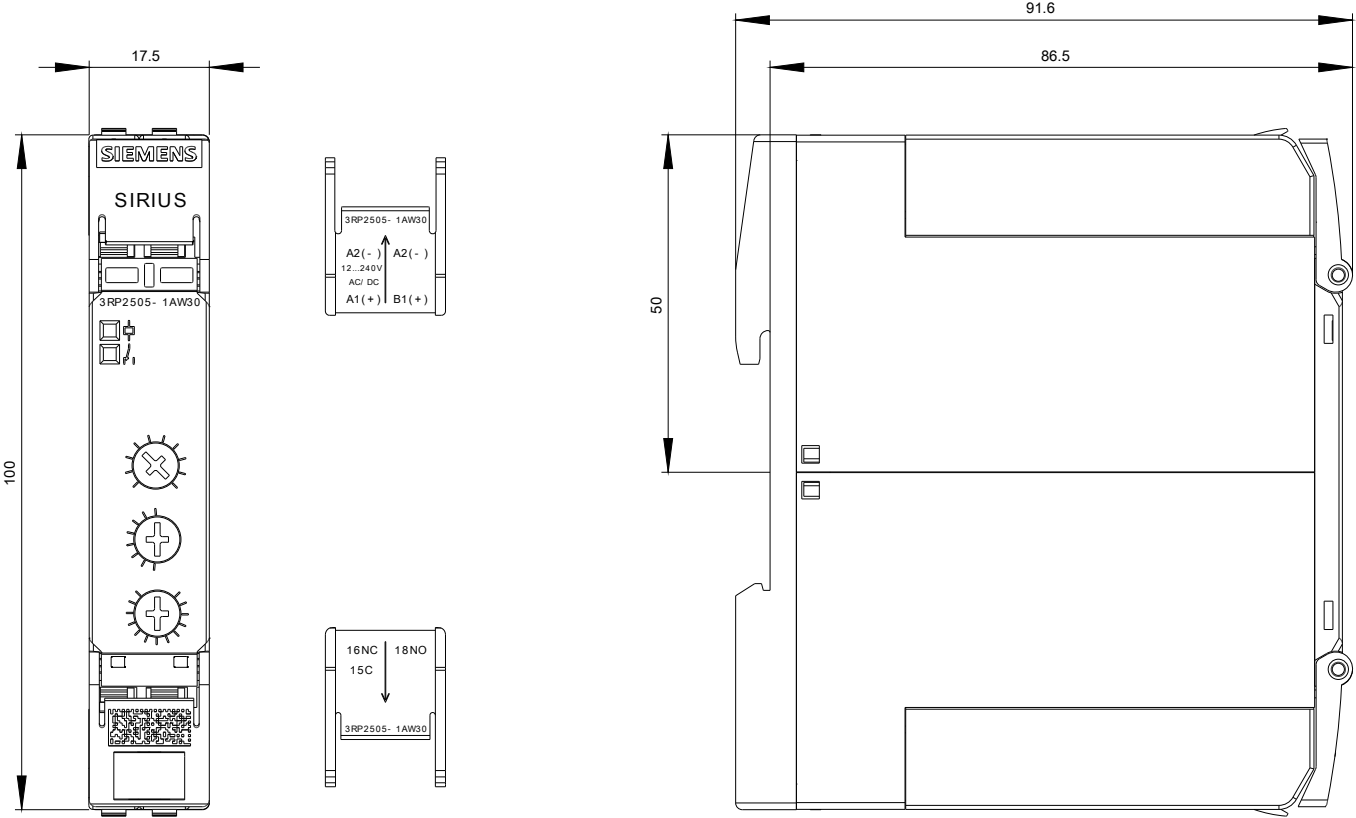
<https://www.siemens.com/ic10>

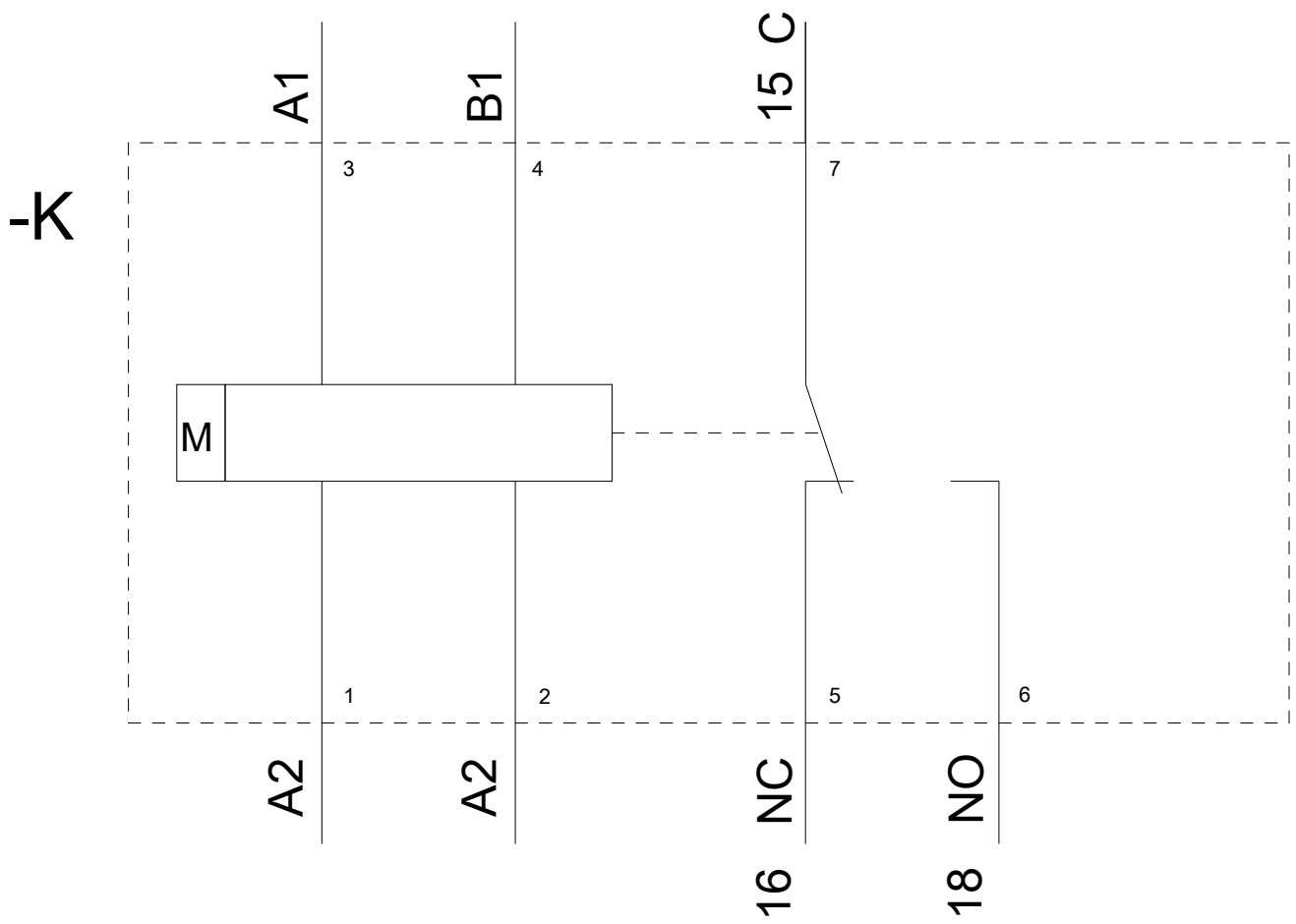
Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2505-1AW30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-1AW30>





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