



Timing relay, Multifunction with painted PCB 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 Spring-type terminal (push-in)

product brand name	SIRIUS
product designation	timing relay
design of the product	13 functions
product type designation	3RP25

General technical data

product feature protective coating on printed-circuit board	Yes; acc. to IPC-A-610
product component	Yes
• relay output • 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 (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
minimum ON period	35 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 Prohibitance (Date)	09/12/2014

Control circuit/ Control

type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz • 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 with interval start/instantaneous No
- flashing symmetrically with interval start Yes
- flashing symmetrically with pulse start/instantaneous No
- flashing symmetrically with pulse start Yes
- flashing asymmetrically with interval start No
- flashing asymmetrically with pulse start 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 switched-on control signal Yes
- retrotriggerable with switched-on 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**AgSnO₂**number of NC contacts**

• delayed switching	0
• instantaneous contact	0
number of NO contacts	
• delayed switching	0
• instantaneous contact	0
number of CO contacts	
• delayed switching	1
• instantaneous contact	0
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 250 V	3 A
operational 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
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

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
conducted interference	
• 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
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge

Safety related data

protection class IP on the front according to IEC 60529	IP20
type of insulation	Basic insulation
category according to EN 954-1	none

Connections/ Terminals

product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection for auxiliary and control circuit	spring-loaded terminals (push-in)
type of connectable conductor cross-sections	
• solid	0.5 ... 4 mm ²
• finely stranded with core end processing	0.5 ... 2.5 mm ²
• finely stranded without core end processing	0.5 ... 4 mm ²
• at AWG cables solid	20 ... 12
• at AWG cables stranded	20 ... 12
connectable conductor cross-section	
• solid	0.5 ... 4 mm ²
• finely stranded with core end processing	0.5 ... 4 mm ²
• finely stranded without core end processing	0.5 ... 4 mm ²
AWG number as coded connectable conductor cross section	
• solid	20 ... 12
• stranded	20 ... 14

Installation/ mounting/ dimensions

mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	100 mm
width	17.5 mm

depth	90 mm
required spacing	
• 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 %

Certificates/ approvals

General Product Approval

EMC



[Confirmation](#)



Declaration of Conformity

Test Certificates

Marine / Shipping



EG-Konf.

[Type Test Certificates/Test Report](#)



LRS



PRS

Marine / Shipping

other



[Confirmation](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3RP2505-2AW30-0AX0>

Cax online generator

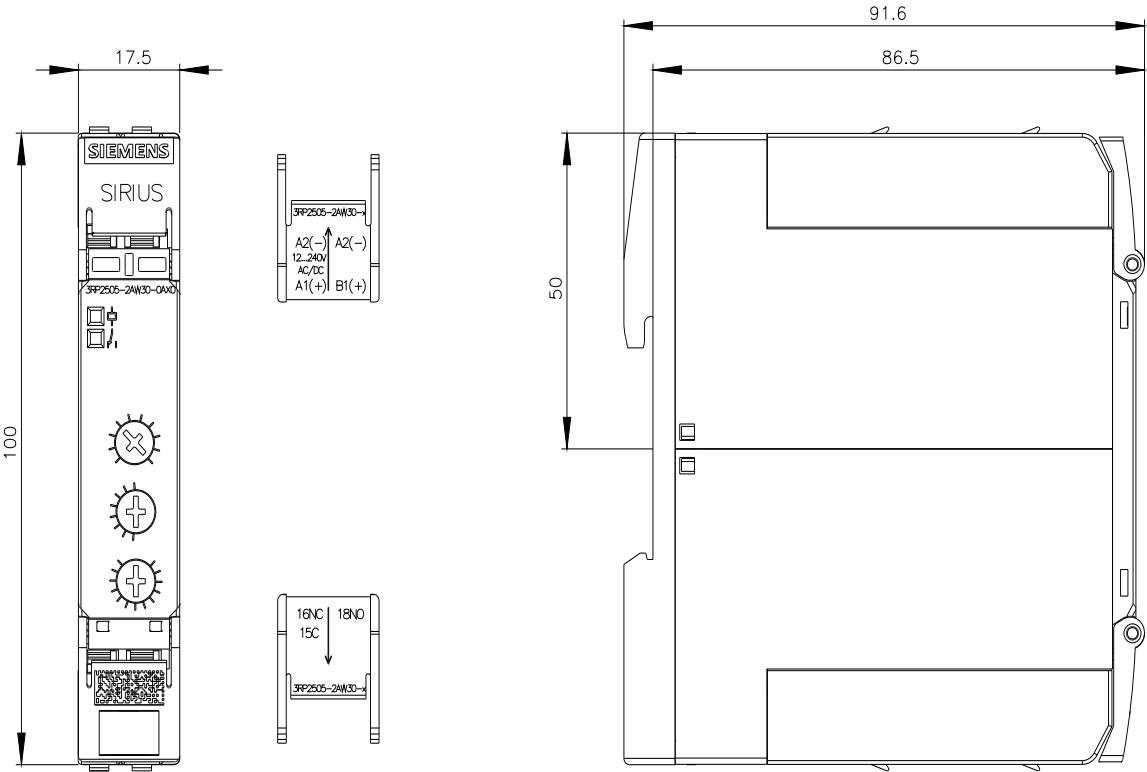
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-2AW30-0AX0>

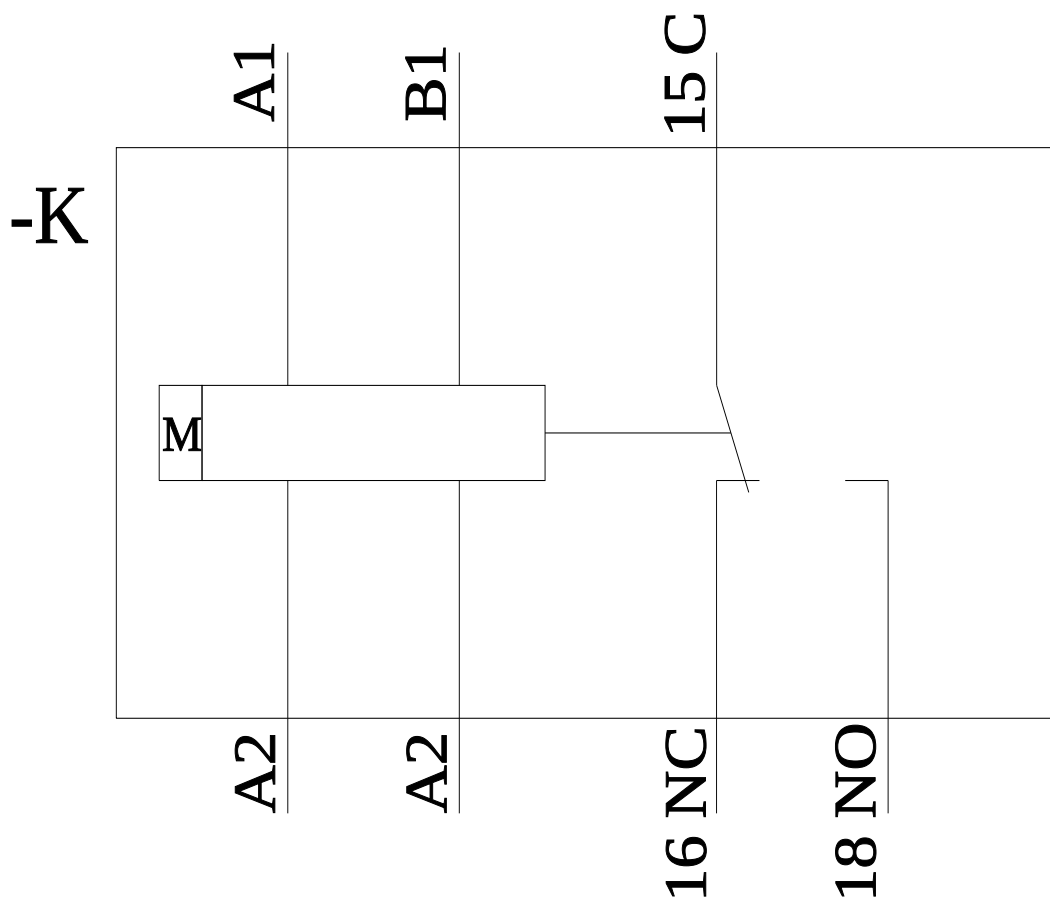
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2AW30-0AX0>

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

Characteristic: Derating





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11/21/2022 [↗](#)