



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 IEC 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

<ul style="list-style-type: none"> • full-scale value 	1.1
operating range factor control supply voltage rated value at AC at 50 Hz <ul style="list-style-type: none"> • initial value • full-scale value 	0.8 1.1
operating range factor control supply voltage rated value at AC at 60 Hz <ul style="list-style-type: none"> • initial value • full-scale value 	0.8 1.1
inrush current peak <ul style="list-style-type: none"> • at 24 V • at 240 V 	0.4 A 5 A
duration of inrush current peak <ul style="list-style-type: none"> • at 24 V • at 240 V 	0.3 ms 0.5 ms
Switching Function	
switching function <ul style="list-style-type: none"> • ON-delay • ON-delay/instantaneous contact • passing make contact • passing make contact/instantaneous contact • OFF delay 	Yes No Yes No No
switching function <ul style="list-style-type: none"> • flashing symmetrically with interval start/instantaneous • flashing symmetrically with interval start • flashing symmetrically with pulse start/instantaneous • flashing symmetrically with pulse start • flashing asymmetrically with interval start • flashing asymmetrically with pulse start 	No Yes No Yes No No
switching function <ul style="list-style-type: none"> • star-delta circuit with delay time • star-delta circuit 	No No
switching function with control signal <ul style="list-style-type: none"> • additive ON-delay • passing break contact • passing break contact/instantaneous • OFF delay • OFF delay/instantaneous • pulse delayed • pulse delayed/instantaneous • pulse-shaping • pulse-shaping/instantaneous • additive ON-delay/instantaneous • ON-delay/OFF-delay/instantaneous • passing make contact • passing make contact/instantaneous contact 	Yes Yes No Yes No Yes No Yes No No No Yes No
switching function of interval relay with control signal <ul style="list-style-type: none"> • retrotriggerable with deactivated control signal/instantaneous contact • retrotriggerable with switched-on control signal • retrotriggerable with switched-on control signal/instantaneous contact • retriggerable with deactivated control signal 	No Yes No 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
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
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	
EMC 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-based interference 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	
touch protection against electrical shock	finger-safe
type of insulation	Basic insulation
category acc. to EN 954-1	none
Connections/ Terminals	
product function removable terminal for auxiliary and control circuit	Yes
type of electrical connection for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
• solid	1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²)
• finely stranded with core end processing	1x (0.5 ... 4 mm ²), 2x (0.5 ... 1.5 mm ²)
• at AWG cables solid	1x (20 ... 12), 2x (20 ... 14)
• at AWG cables stranded	1x (20 ... 12), 2x (20 ... 14)
• connectable conductor cross-section solid	0.5 ... 4 mm ²
• connectable conductor cross-section finely stranded with core end processing	0.5 ... 4 mm ²
• AWG number as coded connectable conductor cross section solid	20 ... 12
• AWG number as coded connectable conductor cross section stranded	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
fastening method	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 0 mm — backwards 0 mm — upwards 0 mm — downwards 0 mm — at the side 0 mm ● for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — backwards 0 mm — upwards 0 mm — at the side 0 mm — downwards 0 mm ● for live parts <ul style="list-style-type: none"> — 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
<ul style="list-style-type: none"> ● ambient temperature during operation -25 ... +60 °C ● ambient temperature during storage -40 ... +85 °C ● ambient temperature during transport -40 ... +85 °C 	
relative humidity during operation	10 ... 95 %

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
---------------------------------	------------	----------------------------------



[Miscellaneous](#)

Declaration of Conformity	Test Certificates	Marine / Shipping
----------------------------------	--------------------------	--------------------------



[Type Test Certificates/Test Report](#)



Marine / Shipping	other
--------------------------	--------------



[Confirmation](#)

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>

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

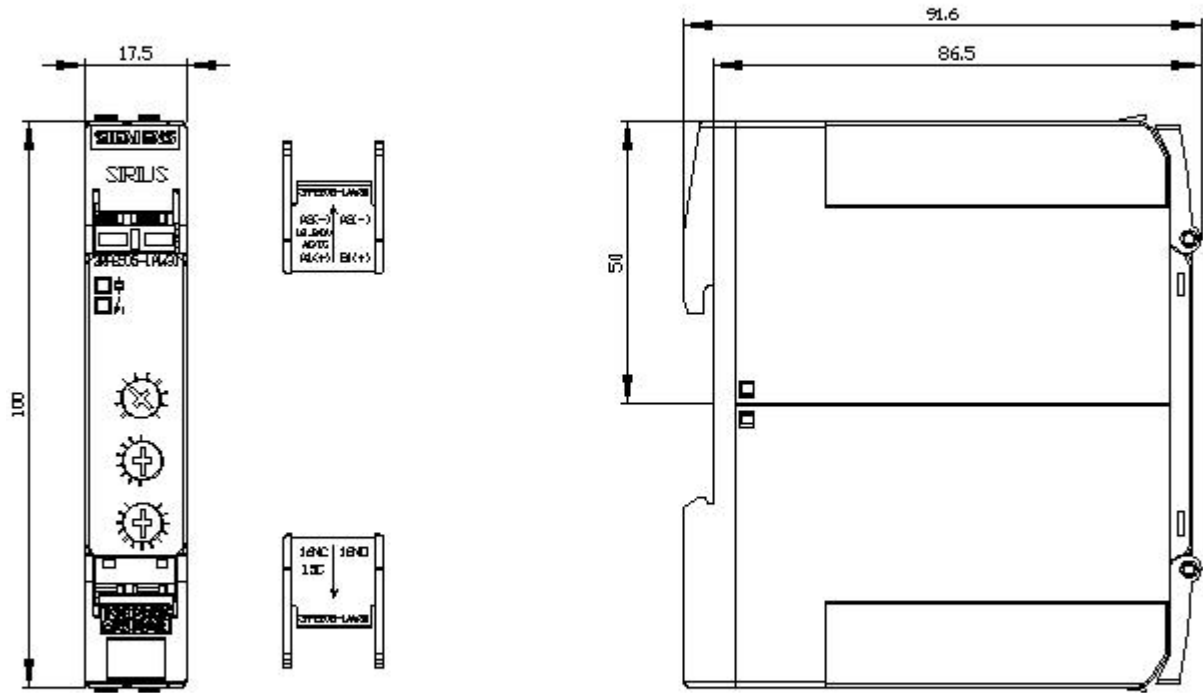
<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1AW30>

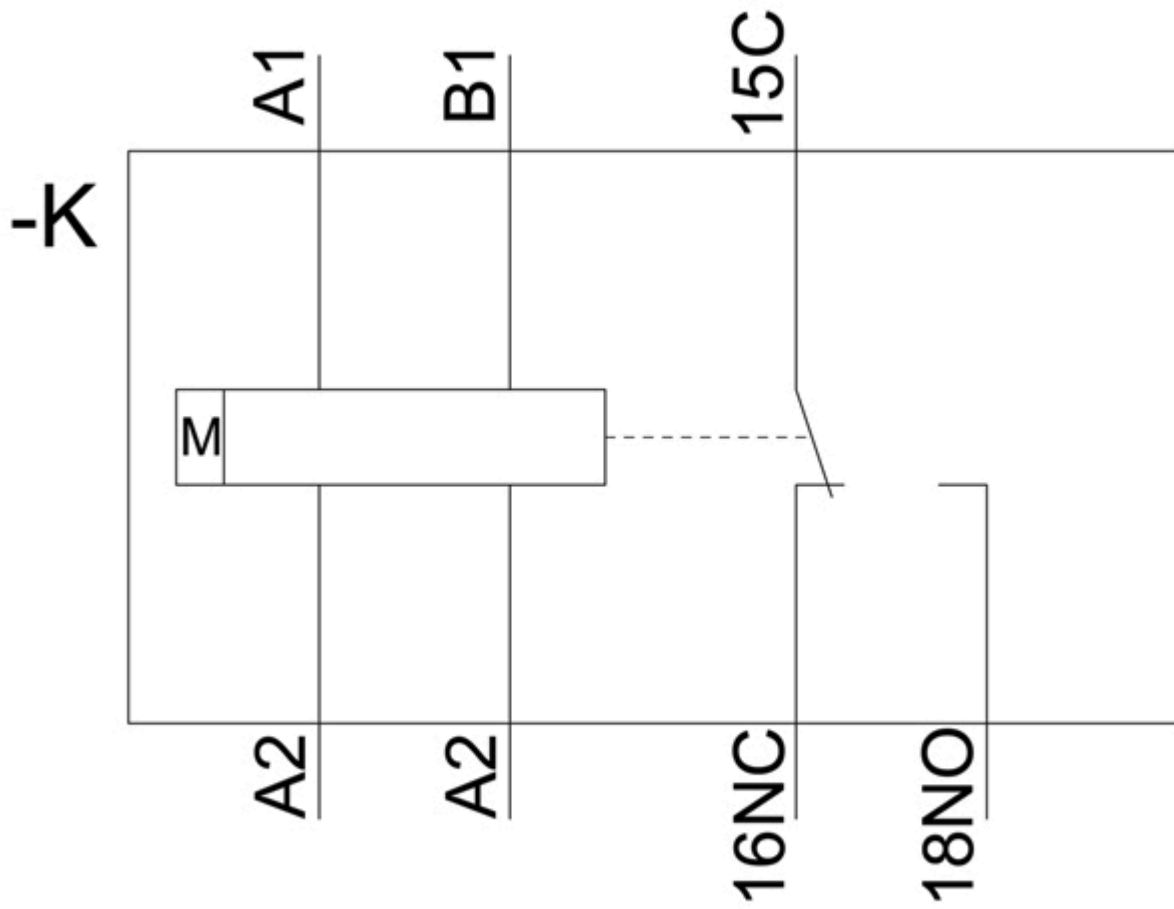
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RP2505-1AW30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1AW30/manual>





last modified:

11/10/2020 