



Timing relay, Multifunction 2 change-over contacts, 27 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	27 functions
product type designation	3RP25
General technical data	
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	11 g / 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
ON period/maximum minimum	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 (day/month/year)	09/12/2014
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
Net Weight	0.159 kg
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	

<ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	12 ... 240 V 12 ... 240 V
control supply voltage 1 at AC	
<ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	12 ... 240 V 12 ... 240 V
control supply voltage frequency 1	50 ... 60 Hz
control supply voltage at DC rated value	12 ... 240 V
control supply voltage 1 at DC	12 ... 240 V
operating range factor control supply voltage rated value at DC	
<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 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 	0.3 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 Yes Yes Yes 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 	Yes Yes Yes Yes No No
switching function	
<ul style="list-style-type: none"> • star-delta circuit with delay time • star-delta circuit 	No Yes
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 Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
switching function of interval relay with control signal	
<ul style="list-style-type: none"> • retrotriggerable with deactivated control signal/instantaneous contact 	Yes

<ul style="list-style-type: none"> • retrotriggerable with switched-on control signal 	Yes
<ul style="list-style-type: none"> • retrotriggerable with switched-on control signal/instantaneous contact 	Yes
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • delayed switching 	0
<ul style="list-style-type: none"> • instantaneous contact 	0
number of NO contacts	
<ul style="list-style-type: none"> • delayed switching 	0
<ul style="list-style-type: none"> • instantaneous contact 	0
number of CO contacts	
<ul style="list-style-type: none"> • delayed switching 	2
<ul style="list-style-type: none"> • instantaneous contact 	0
operational current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> • at 24 V 	3 A
<ul style="list-style-type: none"> • at 250 V 	3 A
operational current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • at 24 V 	1 A
<ul style="list-style-type: none"> • at 125 V 	0.2 A
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • at the relay outputs switchover delayed/without delay 	Yes
<ul style="list-style-type: none"> • non-volatile 	No
ampacity of the output relay at DC-13	
<ul style="list-style-type: none"> • at 24 V 	1 A
<ul style="list-style-type: none"> • at 125 V 	0.2 A
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	
<ul style="list-style-type: none"> • due to burst according to IEC 61000-4-4 	2 kV network connection / 1 kV control connection
<ul style="list-style-type: none"> • due to conductor-earth surge according to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • 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	
category according to EN 954-1	none
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
type of insulation	Basic insulation
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	spring-loaded terminal (push-in)
<ul style="list-style-type: none"> • for auxiliary and control circuit 	spring-loaded terminals (push-in)
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid 	1x (0.5 ... 4 mm ²)

<ul style="list-style-type: none"> finely stranded with core end processing finely stranded without core end processing for AWG cables solid for AWG cables stranded 	1x (0.5 ... 2.5 mm ²) 0.5 ... 4 mm ² 1x (20 ... 12) 20 ... 12
connectable conductor cross-section <ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing 	0.5 ... 4 mm ² 0.5 ... 2.5 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 ... 12

Installation/ mounting/ dimensions

mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	100 mm
width	22.5 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
ambient temperature <ul style="list-style-type: none"> during operation -25 ... +60 °C during storage -40 ... +85 °C during transport -40 ... +85 °C 	
relative humidity during operation	10 ... 95 %

Approvals Certificates

Environment	General Product Approval
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[Environmental Conformations](#)



EMV	Test Certificates	Maritime application
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)




[Confirmation](#)


Railway

[Confirmation](#)

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=3RP2505-2BW30>

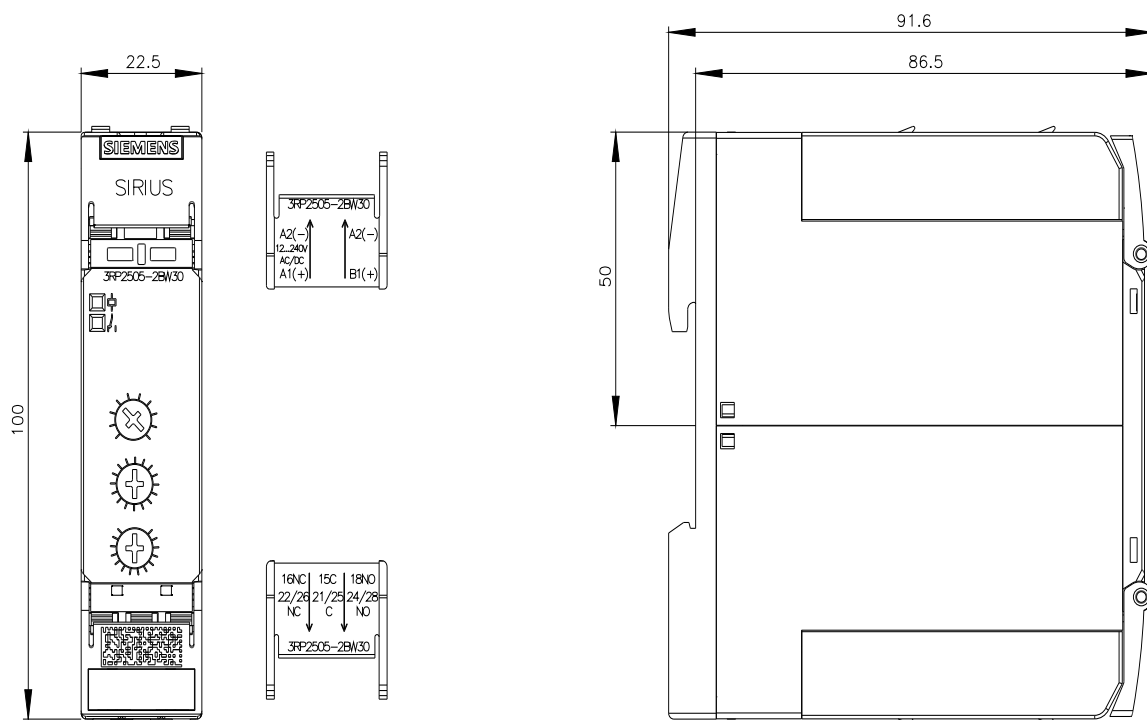
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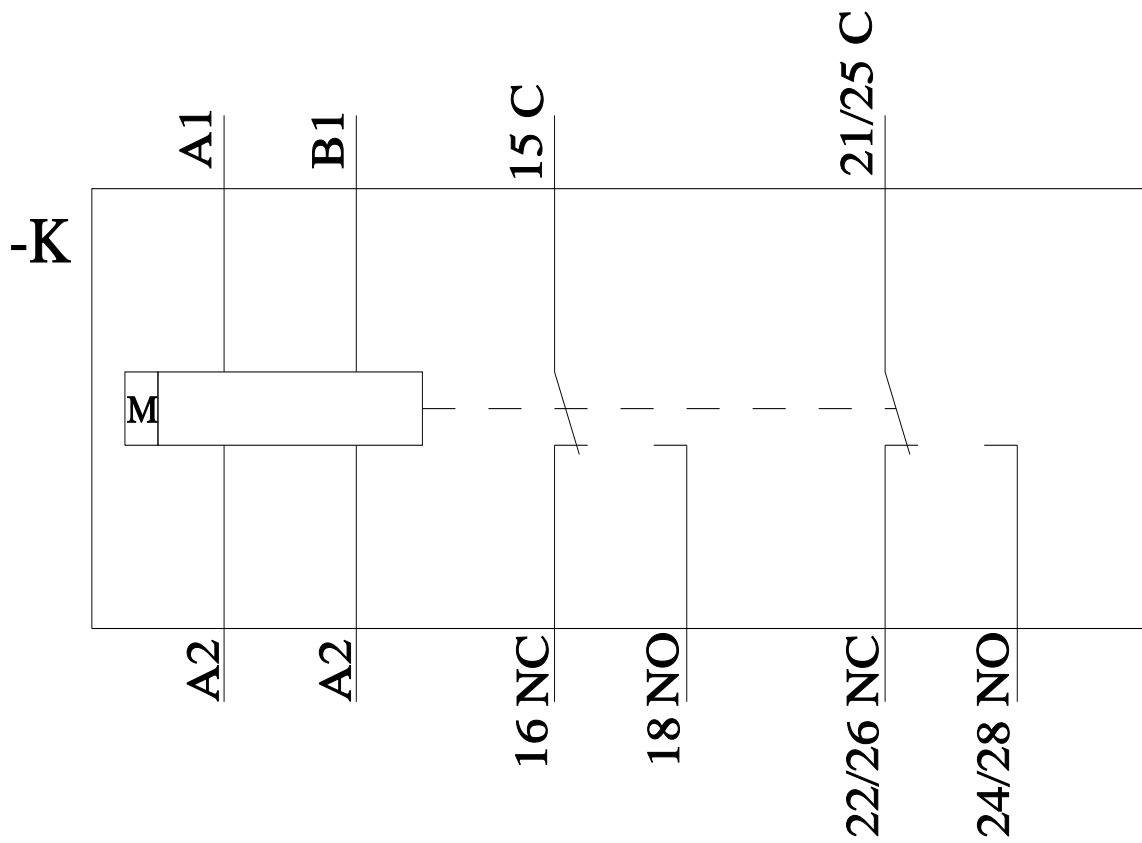
<https://support.automation.siemens.com/WW/CAxorder/default.aspx?lang=en&mlfb=3RP2505-2BW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2BW30>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-2BW30&lang=en




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