

Timing relay, Multifunction 2 change-over contacts, 13 functions Positively driven Relay contacts 24...240 V AC/DC at 50/60 Hz AC 7 time ranges (0.05 s...100 h) with LED Spring-type terminal (push-in)



Figure similar

Article number		
Product brand name		SIRIUS
Product designation		timing relay
Design of the product		13 functions, suitable for railway applications
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
Power loss [W] total typical	W	2
Insulation voltage		
• for overvoltage category III according to IEC 60664		
— with degree of pollution 3 rated value	V	300
Test voltage for isolation test	kV	2.5
Degree of pollution		3

Surge voltage resistance rated value	V	4 000
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	s	0.05 ... 100 h
Relative setting accuracy relating to full-scale value	%	5
Thermal current	A	5
Minimum ON period	ms	35
Recovery time • Reference identifier acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 • Reference identifier acc. to DIN EN 61346-2 • Reference identifier acc. to DIN EN 81346-2	ms	250 K K 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 • at 60 Hz	V V	24 ... 240 24 ... 240
Control supply voltage 1 • at DC	V	24 ... 240
Control supply voltage frequency 1	Hz	50 ... 60
Operating range factor control supply voltage rated value at DC • initial value • Full-scale value		0.7 1.1
Operating range factor control supply voltage rated value at AC at 50 Hz • initial value • Full-scale value		0.7 1.1
Operating range factor control supply voltage rated value at AC at 60 Hz • initial value • Full-scale value		0.7 1.1
Inrush current peak • at 24 V • at 240 V	A A	0.5 5

Duration of inrush current peak		
• at 24 V	ms	0.4
• at 240 V	ms	0.5
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		AgSnO2
Number of NC contacts		
• delayed switching		0
Number of NO contacts		
• delayed switching		0
Number of CO contacts		
• delayed switching		2
Operating current of auxiliary contacts at AC-15		
• at 24 V	A	3
• at 250 V	A	3
Operating current of auxiliary contacts at DC-13		
• at 24 V	A	1
• at 125 V	A	0.2
• at 250 V	A	0.1
Operating frequency with 3RT2 contactor maximum	1/h	5 000
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	A	0.01 ... 3
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

Protection against electrical shock		finger-safe
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 		PUSH-IN connection (spring-loaded connection)
Type of connectable conductor cross-sections <ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing at AWG conductors solid at AWG conductors stranded 		0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.5 ... 4 mm ² 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 	mm ² mm ² mm ²	0.5 ... 4 0.5 ... 2.5 0.5 ... 4
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
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail
Height	mm	100
Width	mm	22.5
Depth	mm	90
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 	mm mm mm mm mm	0 0 0 0 0

- for grounded parts

- forwards
- Backwards
- upwards
- at the side
- downwards

mm 0
mm 0
mm 0
mm 0
mm 0

- for live parts

- forwards
- Backwards
- upwards
- downwards
- at the side

mm 0
mm 0
mm 0
mm 0
mm 0

Ambient conditions

Ambient temperature

- during operation
- during storage
- during transport

°C -40 ... +70
°C -40 ... +85
°C -40 ... +85

Relative humidity

- during operation

% 10 ... 95

Certificates/approvals

General Product Approval

Declaration of Conformity

Test Certificates



[Type Test
Certificates/Test
Report](#)

Test Certificates

Marine / Shipping

other

[Special Test
Certificate](#)



[Confirmation](#)

Railway

[Confirmation](#)

Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2505-2RW30>

Cax online generator

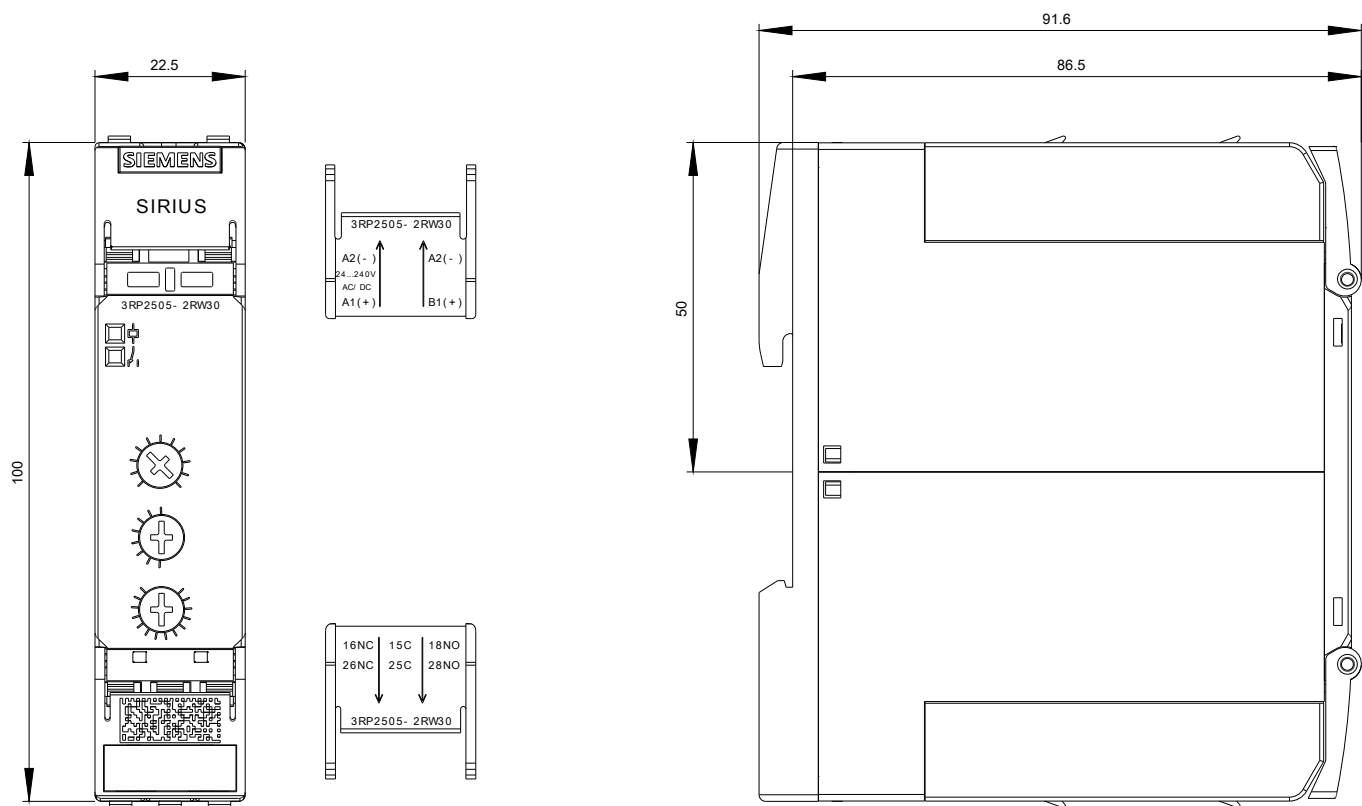
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-2RW30>

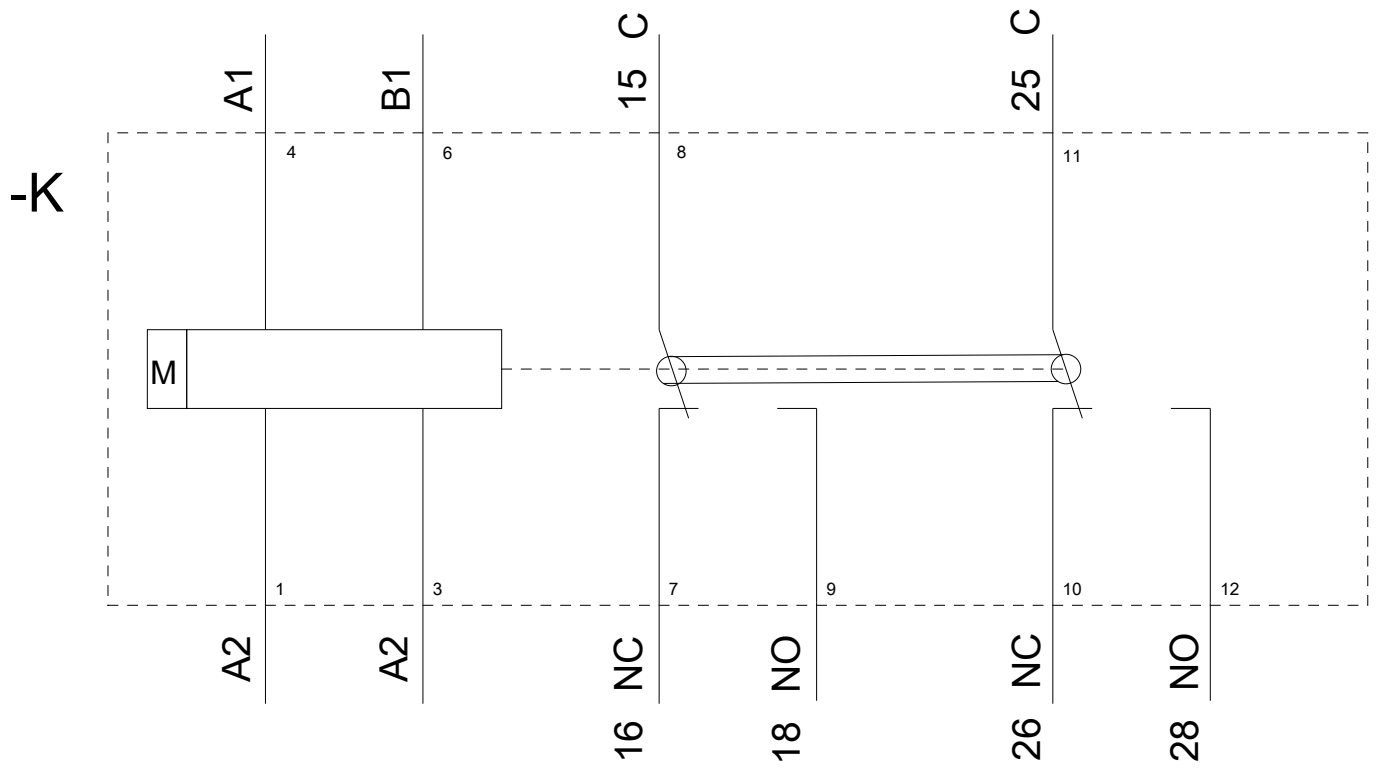
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2RW30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-2RW30&lang=en





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