SIEMENS

Data sheet 3RP2505-1BW30



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, Screw terminal

product brand name	SIRIUS
product designation	timing relay
design of the product	27 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
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	К
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
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	0.18 kg
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 operating range factor control supply voltage rated value at DC initial value full-scale value operating range factor control supply voltage rated value at AC at 50 Hz initial value full-scale value operating range factor control supply voltage rated value at AC at 60 Hz initial value initial value initial value full-scale value initial value full-scale value initial value full-scale value initial value of unitial value full-scale value initial value of unitial value of unitial value initial value of unitial value full-scale value initial value of unitial value	
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switching function of interval relay with control signal	
signal/instantaneous contact	
• retrotriggerable with switched-on control signal Yes	
• retrotriggerable with switched-on control	
signal/instantaneous contact	
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 fuse gL/gG: switch required	
Auxiliary circuit	A

make the last control of t	A-0-00
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 	2
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 	Yes
• 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	
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 for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	, , , , , , , , , , , , , , , , , , ,
solid	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
finely stranded with core end processing	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
for AWG cables solid	1x (20 12), 2x (20 14)
• for AWG cables stranded	1x (20 12), 2x (20 14)
connectable conductor cross-section	(), ()
• solid	0.5 4 mm²
finely stranded with core end processing	0.5 4 mm²
AWG number as coded connectable conductor cross section	
• solid	20 12
	20 12
• stranded	
tightening torque	0.6 0.8 N·m
design of the thread of the connection screw Installation/ mounting/ dimensions	M3
3	2014
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	
 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 %
Approvals Certificates	

General Product Approval







Confirmation





EMV **Test Certificates** Marine / Shipping



<u>KC</u>

Special Test Certificate

Type Test Certificates/Test Report





Marine / Shipping other Railway









Confirmation

Confirmation

Environment

Environmental Con-firmations

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=3RP2505-1BW30

Cax online generator

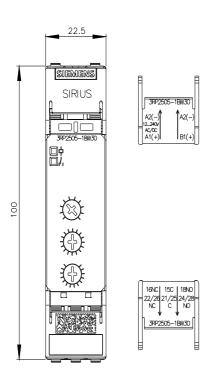
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-1BW30

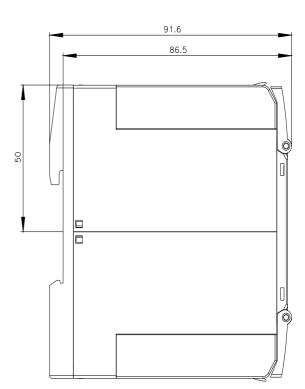
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

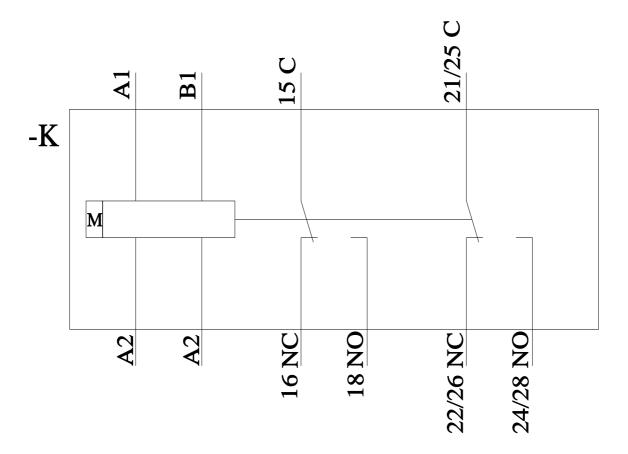
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-1BW30&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1BW30/manual







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