3RP2505-2RW30-0AX0

Data sheet



Timing relay, Multifunction with painted PCB 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)

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 feature protective coating on printed-circuit board	Yes; acc. to IPC-A-610		
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 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 %; +/-		
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)	21.04.2016		
Control circuit/ Control			
type of voltage of the control supply voltage	AC/DC		
control supply voltage 1 at AC			
• at 50 Hz	24 240 V		
• at 60 Hz	24 240 V		
control supply voltage frequency 1	50 60 Hz		

control supply voltage 1	24 240 V
• at DC	24 240 V
operating range factor control supply voltage rated value at DC	
• initial value	0.7
• full-scale value	1.1
operating range factor control supply voltage rated	
value at AC at 50 Hz	
• initial value	0.7
• full-scale value	1.1
operating range factor control supply voltage rated	
value at AC at 60 Hz	
• initial value	0.7
• full-scale value	1.1
inrush current peak	0.5.4
at 24 V at 240 V	0.5 A 5 A
***	5 A
duration of inrush current peak • at 24 V	0.4 ms
• at 24 V • at 240 V	0.5 ms
Switching Function	0.0 1110
switching function	Yes
ON-delay ON delay/instantaneous contact	No
ON-delay/instantaneous contact passing make contact	Yes
passing make contact passing make contact/instantaneous contact	No
passing make contact/instantaneous contactOFF delay	No
switching function	NO
flashing symmetrically with interval	No
start/instantaneous	NO
 flashing symmetrically with interval start 	Yes
flashing symmetrically with pulse	No
start/instantaneous	
 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 passing break contact/instantaneous	Yes
passing break contact/instantaneous OFF delay	No Yes
OFF delay OFF delay/instantaneous	Yes No
OFF delay/instantaneouspulse delayed	Yes
pulse delayedpulse delayed/instantaneous	No
pulse delayed/instantaneouspulse-shaping	Yes
pulse-shaping 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	No
signal/instantaneous contact	
 retrotriggerable with switched-on control signal 	Yes
 retrotriggerable with switched-on control 	No
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	fuse gL/gG: 4 A	
auxiliary switch required		
Auxiliary circuit		
material of switching contacts	AgNi	
number of NC contacts delayed switching	0	
number of NO contacts delayed switching	0	
number of CO contacts delayed switching	2	
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	4.0	
at 24 V at 125 V	1 A 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 	No	
delay	No	
• non-volatile	No	
Electromagnetic compatibility	A Circle Andrews	
EMC emitted interference acc. to IEC 61812-1	ambience A (industrial sector)	
EMC immunity acc. to IEC 61812-1 conducted interference	corresponds to degree of severity 3	
	2 kV network connection / 1 kV control connection	
 due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV	
due to conductor-earth surge acc. to IEC 6 1000-4-5 due to conductor-conductor surge acc. to IEC	1 kV	
61000-4-5		
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		
protection class IP on the front acc. to IEC 60529	IP20	
type of insulation	Basic insulation	
category acc. 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 mm²	
finely stranded with core end processing finely stranded without core and processing	0.5 2.5 mm ²	
finely stranded without core end processing act AWC cables solid.	0.5 4 mm ²	
 at AWG cables solid at AWG cables stranded 	20 12 20 12	
connectable conductor cross-section	LV 1L	
solid	0.5 4 mm²	
finely stranded with core end processing	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	
• stranded	20 14	
Installation/ mounting/ dimensions		
mounting position	any	
fastening method	screw and snap-on mounting onto 35 mm standard mounting 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		
mbient 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 %		
Sertificates/ approvals			
General Product Approval		Declaration of	Test Certificates









Miscellaneous

Conformity

Type Test Certificates/Test Report

Marine / Shipping









Confirmation

other

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=3RP2505-2RW30-0AX0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-2RW30-0AX0

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

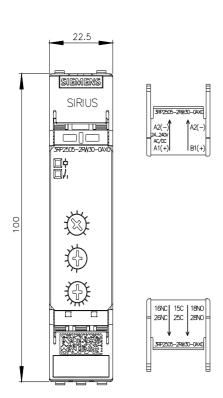
https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2RW30-0AX0

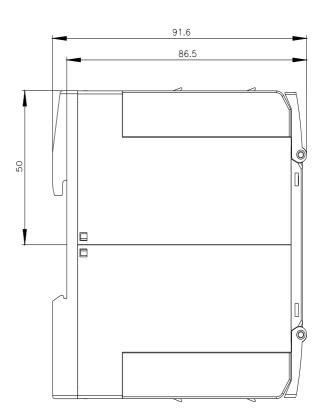
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

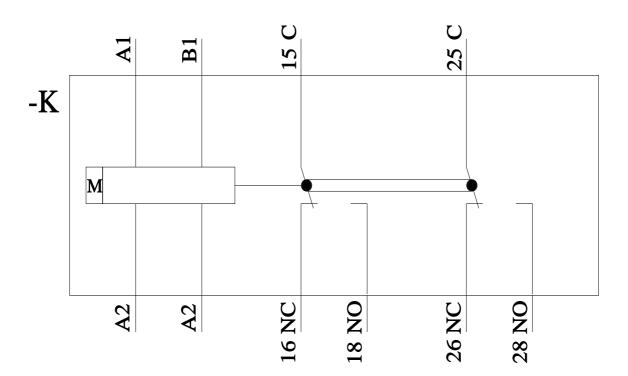
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-2RW30-0AX0&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-2RW30-0AX0/manual







last modified: 12/9/2021 🖸