



Timing relay, Multifunction 1 change-over contact, 13 functions 7 time ranges (0.05 s...100 h) 24 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
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 (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	150 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 (Date)	09/12/2014
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
control supply voltage frequency 1	50 ... 60 Hz
control supply voltage 1	
• at DC rated value	24 V

operating range factor control supply voltage rated value at DC - initial value - full-scale value	0.85 1.1
operating range factor control supply voltage rated value at AC at 50 Hz - initial value - full-scale value	0.85 1.1
operating range factor control supply voltage rated value at AC at 60 Hz - initial value - full-scale value	0.85 1.1
inrush current peak at 24 V	2 A
duration of inrush current peak at 24 V	1 ms
Switching Function	
switching function - ON-delay - ON-delay/instantaneous contact - passing make contact - passing make contact/instantaneous contact - OFF delay	Yes No Yes No No
switching function - 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 - star-delta circuit with delay time - star-delta circuit	No No
switching function with control signal - 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 - 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	AqSnO2

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	1
• 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	No
• 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	
protection class IP on the front according to IEC 60529	IP20
type of insulation	Basic insulation
category according 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	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
• finely stranded with core end processing	0.5 ... 4 mm ²
AWG number as coded connectable conductor cross section	
• solid	20 ... 12
• 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	
• 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 %

Certificates/ approvals	
General Product Approval	EMC



[Confirmation](#)



Declaration of Conformity	Test Certificates	Marine / Shipping
 EG-Konf.	 Type Test Certificates/Test Report	 BUREAU VERITAS
		 LRS
		 PRS

Marine / Shipping	other
 RINA	 RMRS
 DNV GL	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=3RP2505-1AB30

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-1AB30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1AB30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2505-1AB30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1AB30/manual>

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