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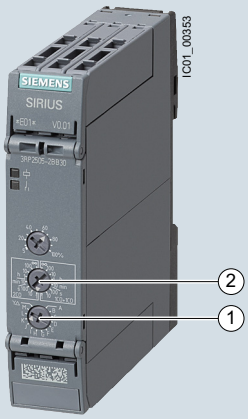
SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm NEW

Two setting options for implementing the multifunctions (A-M):



(1) Determination of 13 functions by the setting A to M, with 1 CO, 1 NO, 2 CO that switch in parallel.

(2) Extended function variance by selecting the time range and determining, whether 2 CO switch in parallel or whether 1 CO switches with delay + 1 CO switches immediately (1 CO + 1 CO)

Setting the functions on the device

Overview of functions of the 3RP2505 multifunctional timing relay

Identification letter	**13 functions** 1 CO, 1 NO (semiconductor) or 2 CO switched in parallel	**27 functions** 13 functions (A - M) 2 CO switched in parallel + 13 functions (A - M) 1 CO delayed + 1 CO instantaneous (1 CO + 1 CO) and wye-delta function
A	ON-delay	ON-delay and instantaneous contact
B	OFF-delay with control signal	OFF-delay with control signal and instantaneous contact
C	ON-delay/OFF-delay with control signal	ON-delay/OFF-delay with control signal and instantaneous contact
D	Flashing, symmetrical, starting with interval	Flashing, symmetrical, starting with interval and instantaneous contact
E	Passing make contact, interval relay	Passing make contact, interval relay and instantaneous contact
F	Retriggerable interval relay with deactivated control signal (passing break contact with control signal)	Retriggerable interval relay with deactivated control signal (passing break contact with control signal) and instantaneous contact
G	Passing make contact, with control signal, not retriggerable (pulse-forming with control signal)	Passing make contact, with control signal, not retriggerable (pulse-forming with control signal) and instantaneous contact
H	Additive ON-delay, instantaneous OFF with control signal	Additive ON-delay, instantaneous OFF with control signal and instantaneous contact
I	Additive ON-delay with control signal	Additive ON-delay with control signal and instantaneous contact
J	Flashing, symmetrical, starting with pulse	Flashing, symmetrical, starting with pulse and instantaneous contact
K	Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay)	Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay) and instantaneous contact
L	Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay)	Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay) and instantaneous contact
M	Retriggerable interval relay with activated control signal (watchdog)	Retriggerable interval relay with activated control signal and instantaneous contact (watchdog)
--	--	Wye-delta function

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Conversion list

The conversion table below lists the current 3RP25 article numbers with the former 3RP15 article numbers.

Article number 3RP15	Article number 3RP25
3RP1505	
3RP1505-1AA40	3RP2505-1AW30
3RP1505-1AP30	3RP2505-1AB30[1], 3RP2505-1AW30
3RP1505-2AP30	3RP2505-2AB30[1], 3RP2505-2AW30
3RP1505-1AQ30	3RP2505-1AB30[1], 3RP2505-1AW30
3RP1505-2AQ30	3RP2505-2AB30[1], 3RP2505-2AW30
3RP1505-1AW30	3RP2505-1AW30
3RP1505-2AW30	3RP2505-2AW30
3RP1505-1BP30	3RP2505-1BB30[1], 3RP2505-1BW30
3RP1505-2BP30	3RP2505-2BB30[1], 3RP2505-2BW30
3RP1505-1BQ30	3RP2505-1BB30[1], 3RP2505-1BW30
3RP1505-2BQ30	3RP2505-2BB30[1], 3RP2505-2BW30
3RP1505-1BW30	3RP2505-1BW30
3RP1505-2BW30	3RP2505-2BW30
3RP1505-1BT20	3RP2505-1BT20
3RP1505-1RW30	On request
3RP1505-2RW30	On request
3RP1511	
3RP1511-1AP30	3RP2511-1AW30
3RP1511-2AP30	3RP2511-2AW30
3RP1511-1AQ30	3RP2511-1AW30
3RP1511-2AQ30	3RP2511-2AW30
3RP1512	
3RP1512-1AP30	3RP2512-1AW30
3RP1512-2AP30	3RP2512-2AW30
3RP1512-1AQ30	3RP2512-1AW30
3RP1512-2AQ30	3RP2512-2AW30
3RP1513	
3RP1513-1AP30	3RP2513-1AW30
3RP1513-2AP30	3RP2513-2AW30
3RP1513-1AQ30	3RP2513-1AW30
3RP1513-2AQ30	3RP2513-2AW30
3RP1525	
3RP1525-1AP30	3RP2525-1AW30
3RP1525-2AP30	3RP2525-2AW30
3RP1525-1AQ30	3RP2525-1AW30
3RP1525-2AQ30	3RP2525-2AW30
3RP1525-1BP30	3RP2525-1BB30[1], 3RP2525-1BW30
3RP1525-2BP30	3RP2525-2BB30[1], 3RP2525-2BW30
3RP1525-1BQ30	3RP2525-1BB30[1], 3RP2525-1BW30
3RP1525-2BQ30	3RP2525-2BB30[1], 3RP2525-2BW30
3RP1525-1BR30	3RP2525-1BW30
3RP1525-2BR30	3RP2525-2BW30
3RP1525-1BW30	3RP2525-1BW30
3RP1525-2BW30	3RP2525-2BW30
3RP1527	
3RP1527-1EC30	3RP2527-1EW30
3RP1527-2EC30	3RP2527-2EW30
3RP1527-1EM30	3RP2527-1EW30
3RP1527-2EM30	3RP2527-2EW30
3RP1531	
3RP1531-1AP30	3RP2535-1AW30
3RP1531-2AP30	3RP2535-2AW30
3RP1531-1AQ30	3RP2535-1AW30
3RP1531-2AQ30	3RP2535-2AW30

Article number 3RP15	Article number 3RP25
3RP1532	
3RP1532-1AP30	3RP2535-1AW30
3RP1532-2AP30	3RP2535-2AW30
3RP1532-1AQ30	3RP2535-1AW30
3RP1532-2AQ30	3RP2535-2AW30
3RP1533	
3RP1533-1AP30	3RP2535-1AW30
3RP1533-2AP30	3RP2535-2AW30
3RP1533-1AQ30	3RP2535-1AW30
3RP1533-2AQ30	3RP2535-2AW30
3RP1540	
3RP1540-1AB31	3RP2540-1AB30
3RP1540-2AB31	3RP2540-2AB30
3RP1540-1AJ31	3RP2540-1AW30
3RP1540-2AJ31	3RP2540-2AW30
3RP1540-1AN31	3RP2540-1AW30
3RP1540-2AN31	3RP2540-2AW30
3RP1540-1AW31	3RP2540-1AW30
3RP1540-2AW31	3RP2540-2AW30
3RP1540-1BB31	3RP2540-1BB30
3RP1540-2BB31	3RP2540-2BB30
3RP1540-1BJ31	3RP2540-1BW30
3RP1540-2BJ31	3RP2540-2BW30
3RP1540-1BN31	3RP2540-1BW30
3RP1540-2BN31	3RP2540-2BW30
3RP1540-1BW31	3RP2540-1BW30
3RP1540-2BW31	3RP2540-2BW30
3RP1555	
3RP1555-1AR30	3RP2555-1AW30
3RP1555-2AR30	3RP2555-2AW30
3RP1555-1AP30	3RP2555-1AW30
3RP1555-2AP30	3RP2555-2AW30
3RP1555-1AQ30	3RP2555-1AW30
3RP1555-2AQ30	3RP2555-2AW30
3RP1560	
3RP1560-1SP30	3RP2560-1SW30
3RP1560-2SP30	3RP2560-2SW30
3RP1560-1SQ30	3RP2560-1SW30
3RP1560-2SQ30	3RP2560-2SW30
3RP1574	
3RP1574-1NP30	3RP2574-1NW30
3RP1574-2NP30	3RP2574-2NW30
3RP1574-1NQ30	3RP2574-1NW30
3RP1574-2NQ30	3RP2574-2NW30
3RP1574-1NM20	3RP2574-1NM20
3RP1574-2NM20	3RP2574-2NM20
3RP1576	
3RP1576-1NP30	3RP2576-1NW30
3RP1576-2NP30	3RP2576-2NW30
3RP1576-1NQ30	3RP2576-1NW30
3RP1576-2NQ30	3RP2576-2NW30
3RP1576-1NM20	3RP2576-1NM20
3RP1576-2NM20	3RP2576-2NM20

[1] Only 24 V AC/DC.

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SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm NEW

Article No. scheme

Digit of the Article No.	1st - 5th	6th	7th		8th	9th	10th	11th	12th
	□□□□□	□	□	–	□	□	□	□	**0**
Timing relays in industrial enclosure 17.5 mm and 22.5 mm	**3 R P 25**								
Functions/time setting ranges		□	□						
Connection type					□				
Contacts						□			
Rated control supply voltage							□	□	
Example	**3 R P 25**	**0**	**5**	**–**	**1**	**A**	**W**	**3**	**0**

Note:

The Article No. scheme is presented here merely for information purposes and for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the catalog in the Selection and ordering data.

Benefits

- Easy stock keeping and logistics thanks to low variance of devices
- Reduced space requirement in the control cabinet thanks to variants in width 17.5 mm and 22 mm
- Consistent for all functions thanks to wide voltage range from 12 to 240 V AC/DC
- Up to 27 functions according to IEC 61812 in the multifunctional timing relay with wide voltage range
- Multifunctional timing relay with semiconductor output for high switching frequencies, bounce-free and wear-free switching

Application

Timing relays are used in control, starting, and protective circuits for all switching operations involving time delays. They guarantee a high level of functionality and a high repeat accuracy of timer settings.

Enclosure version

All timing relays are suitable for snap-on mounting onto TH 35 standard mounting rails according to IEC 60715 or for screw fixing.

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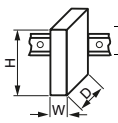
NEW **SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm**

Technical specifications

Type		**3RP2505-.A, 3RP2505-.C, 3RP251., 3RP2525-.A, 3RP2527, 3RP253., 3RP255.**	**3RP2505-.B, 3RP2525-.B, 3RP254., 3RP256., 3RP257.**
Width	mm	17.5	22.5
Height	mm	100	100
Depth	mm	90	90



Type		**3RP25..**									
		-.AB	**-.AW**	**-.BB**	**-.BT**	**-.BW**	**-.CW**	**-.EW**	**-.NM**	**-.NW**	**-.SW**
Insulation voltage for overvoltage category III according to IEC 60664 for pollution degree 3, rated value	V AC	300	300	300	500	300	300	--	500	300	300
Ambient temperature											
• During operation	°C	-25 ... +60									
• During storage	°C	-40 ... +80									
Operating range factor of the control supply voltage, rated value											
• At AC											
- At 50 Hz		0.85 ... 1.1									
- At 60 Hz		0.85 ... 1.1									
• At DC		0.85 ... 1.1			--	0.85 ... 1.1			--	0.85 ... 1.1	
Switching capacity current with inductive load	A	0.01 ... 3	0.01 ... 3	0.01 ... 3	0.01 ... 3	0.01 ... 3	0.01 ... 1	0.01 ... 0.6	0.01 ... 3	0.01 ... 3	0.01 ... 3
Operational current of the auxiliary contacts											
• At AC-15											
- At 24 V	A	3	3	3	3	3	1	--	3	3	3
- At 250 V	A	3	3	3	3	3	1	--	3	3	3
- At 400 V	A	--	--	--	3	--	--	--	3	--	--
• At DC-13											
- At 24 V	A	1	1	1	1	1	1	--	1	1	1
- At 125 V	A	0.2	0.2	0.2	0.2	0.2	1	--	0.2	0.2	0.2
- At 250 V	A	0.1	0.1	0.1	0.1	0.1	1	--	0.1	0.1	0.1
Uninterrupted thermal current I_{th}	A	5	5	5	5	5	1	0.6	5	5	5
Mechanical endurance	(Operating cycles) Typical	10 x 10^6									
Electrical endurance for AC-15 at 230 V, typical	(Operating cycles)	1 x 10^5									

Type		**3RP25**
Connection type		**Screw terminals**
• Design of thread of connection screw		M3
• Solid	mm^2	1 x (0.5 ... 4)/2 x (0.5 ... 2.5)
• Finely stranded with end sleeve	mm^2	1 x (0.5 ... 4)/2 x (0.5 ... 1.5)
• Solid for AWG cables	AWG	1 x (20 ... 12), 2 x (20 ... 14)
• Stranded for AWG cables	AWG	1 x (20 ... 12), 2 x (20 ... 14)
• Tightening torque	Nm	0.6 … 0.8
Connection type		**Spring-type terminals**
• Solid	mm^2	1 x (0.5 ... 4)
• Finely stranded with end sleeve	mm^2	1 x (0.5 ... 2.5)
• AWG cables, solid	AWG	1 x (20 ... 12)
• AWG cables, stranded	AWG	--

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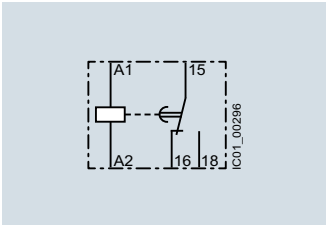
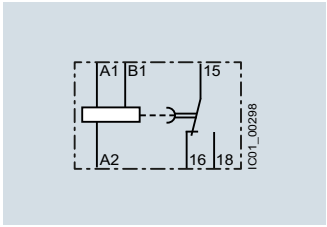
SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm NEW

Internal circuit diagrams 3RP25

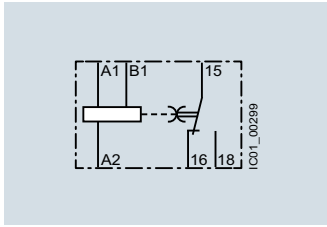
Multifunction 3RP2505-.A, 13 functions, 1 CO



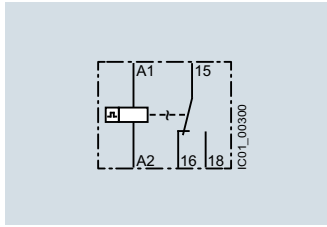
3RP2505-.A (A)
ON-delay



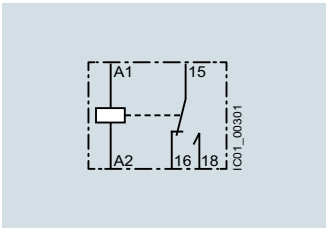
3RP2505-.A (B)
OFF-delay with control signal



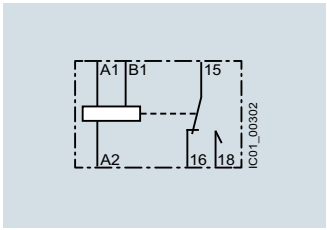
3RP2505-.A (C)
ON-delay/OFF-delay with control signal



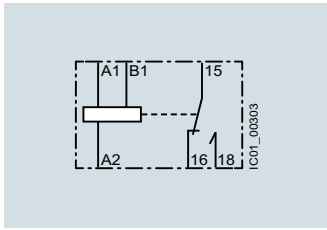
3RP2505-.A (D)
Flashing, symmetrical, starting with interval



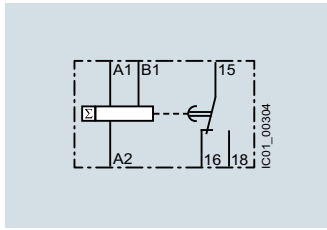
3RP2505-.A (E)
Passing make contact, interval relay



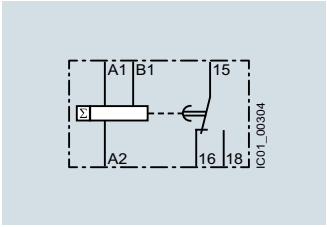
3RP2505-.A (F)
Retriggerable interval relay with deactivated control signal (passing break contact with control signal)



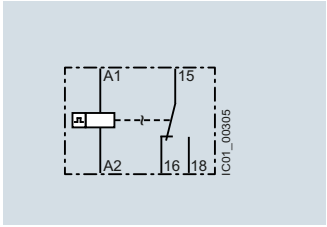
3RP2505-.A (G)
Passing make contact with control signal, not retriggerable (pulse-forming with control signal)



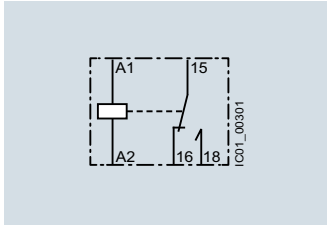
3RP2505-.A (H)
Additive ON-delay, instantaneous OFF with control signal



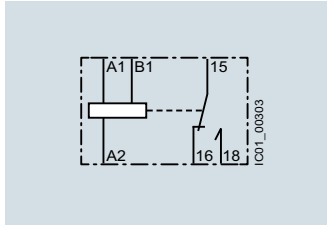
3RP2505-.A (I)
Additive ON-delay with control signal



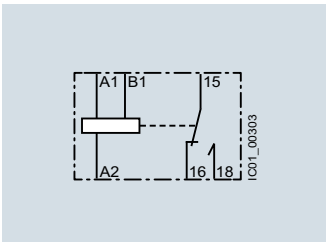
3RP2505-.A (J)
Flashing, symmetrical, starting with pulse



3RP2505-.A (K)
Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay)



3RP2505-.A (L)
Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay)



3RP2505-.A (M)
Retriggerable interval relay with activated control signal (watchdog)

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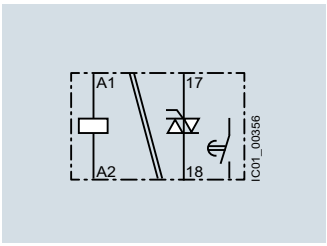
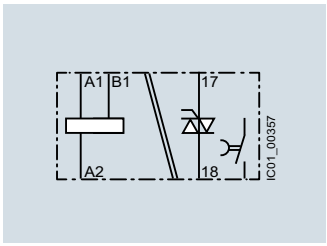
NEW **SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm**

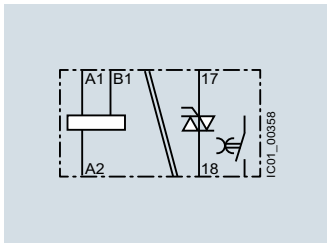
Multifunction 3RP2505-.C, 13 functions, 1 NO (semiconductor)



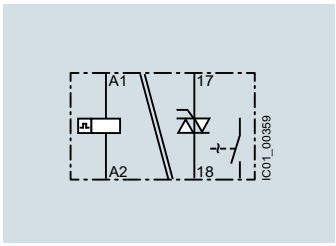
3RP2505-.C (A)
ON-delay



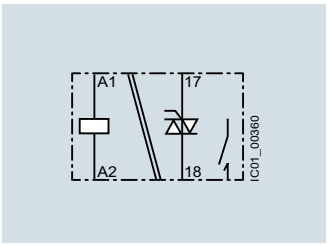
3RP2505-.C (B)
OFF-delay with control signal



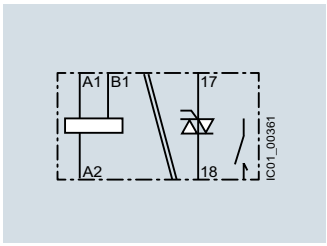
3RP2505-.C (C)
ON-delay/OFF-delay with control signal



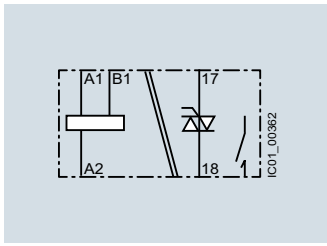
3RP2505-.C (D)
Flashing, symmetrical, starting with interval



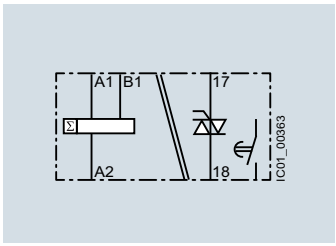
3RP2505-.C (E)
Passing make contact, interval relay



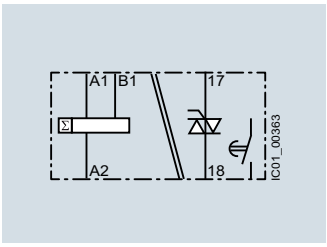
3RP2505-.C (F)
Retriggerable interval relay with deactivated control signal (passing break contact with control signal)



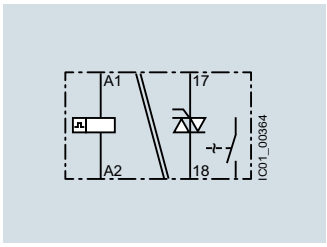
3RP2505-.C (G)
Passing make contact with control signal, not retriggerable (pulse-forming with control signal)



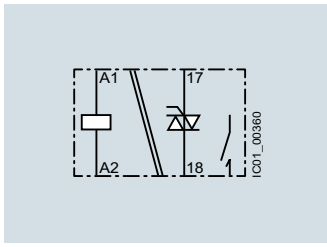
3RP2505-.C (H)
Additive ON-delay, instantaneous OFF with control signal



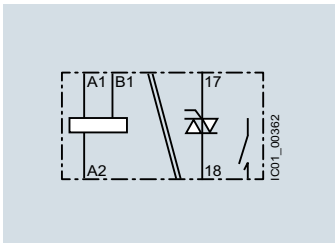
3RP2505-.C (I)
Additive ON-delay with control signal



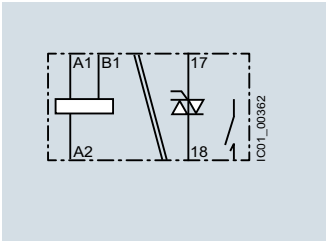
3RP2505-.C (J)
Flashing, symmetrical, starting with pulse



3RP2505-.C (K)
Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay)



3RP2505-.C (L)
Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay)



3RP2505-.C (M)
Retriggerable interval relay with activated control signal (watchdog)

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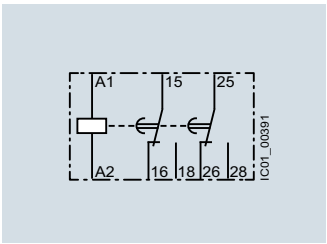
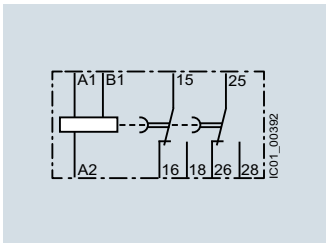
SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm NEW

Multifunction 3RP2505-.B, 27 functions, 2 CO switched in parallel with delay



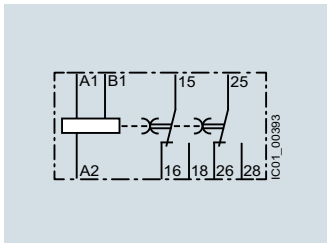
3RP2505-.B (A)

ON-delay



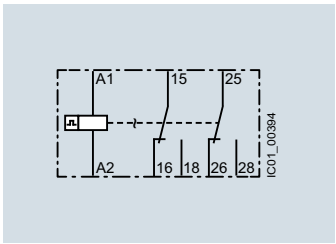
3RP2505-.B (B)

OFF-delay with control signal



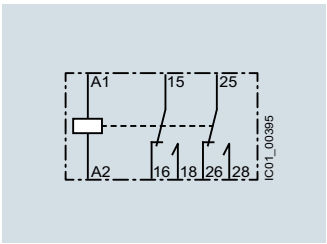
3RP2505-.B (C)

ON-delay/OFF-delay with control signal



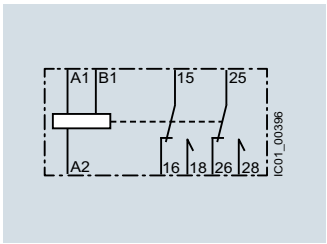
3RP2505-.B (D)

Flashing, symmetrical, starting with interval



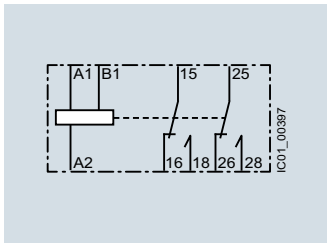
3RP2505-.B (E)

Passing make contact, interval relay



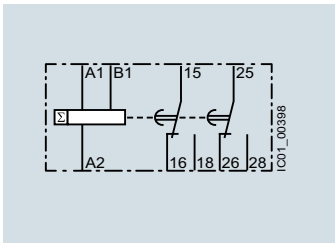
3RP2505-.B (F)

Retriggerable interval relay with deactivated control signal (passing break contact with control signal)



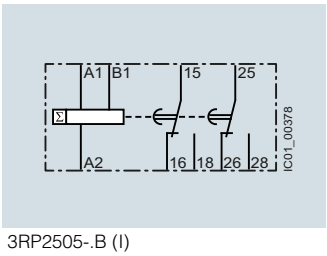
3RP2505-.B (G)

Passing make contact with control signal, not retriggerable (pulse-forming with control signal)



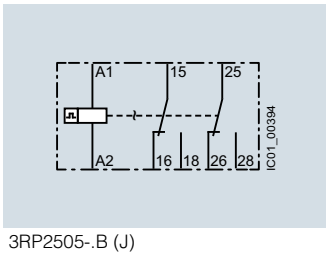
3RP2505-.B (H)

Additive ON-delay, instantaneous OFF with control signal



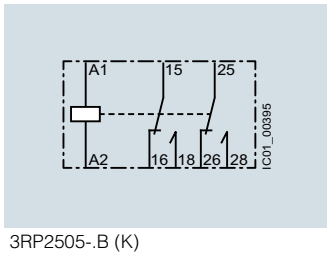
3RP2505-.B (I)

Additive ON-delay with control signal



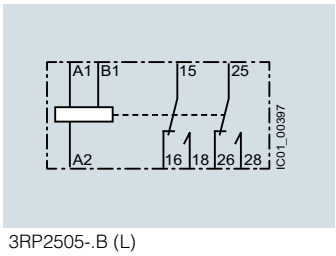
3RP2505-.B (J)

Flashing, symmetrical, starting with pulse



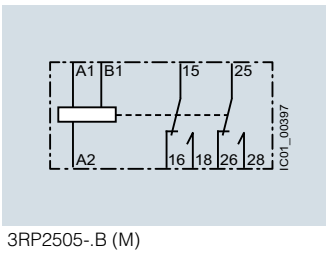
3RP2505-.B (K)

Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay)



3RP2505-.B (L)

Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay)



3RP2505-.B (M)

Retriggerable interval relay with activated control signal (watchdog)

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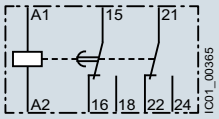
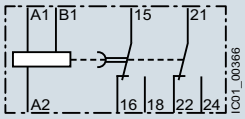
NEW **SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm**

Multifunction 3RP2505-.B, 27 functions, 1 CO delayed + 1 CO instantaneous



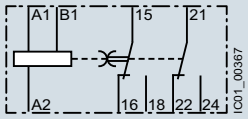
3RP2505-.B (A)

ON-delay and instantaneous contact



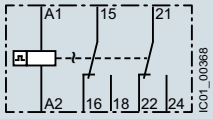
3RP2505-.B (B)

OFF-delay with control signal and instantaneous contact



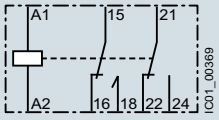
3RP2505-.B (C)

ON-delay/OFF-delay with control signal and instantaneous contact



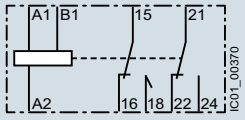
3RP2505-.B (D)

Flashing, symmetrical, starting with interval and instantaneous contact



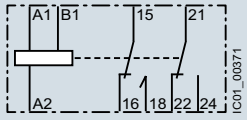
3RP2505-.B (E)

Passing make contact, interval relay and instantaneous contact



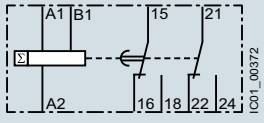
3RP2505-.B (F)

Retriggerable interval relay with deactivated control signal (passing break contact with control signal) and instantaneous contact



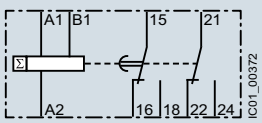
3RP2505-.B (G)

Passing make contact with control signal, not retriggerable (pulse-forming with control signal) and instantaneous contact



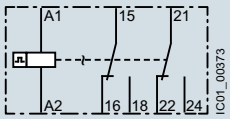
3RP2505-.B (H)

Additive ON-delay, instantaneous OFF with control signal and instantaneous contact



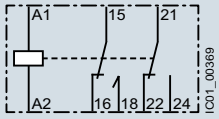
3RP2505-.B (I)

Additive ON-delay with control signal and instantaneous contact



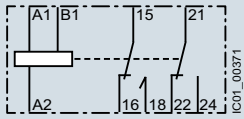
3RP2505-.B (J)

Flashing, symmetrical, starting with pulse and instantaneous contact



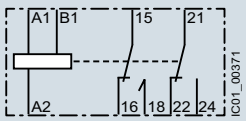
3RP2505-.B (K)

Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay) and instantaneous contact



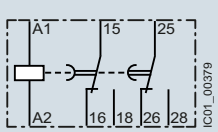
3RP2505-.B (L)

Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay) and instantaneous contact



3RP2505-.B (M)

Retriggerable interval relay with activated control signal and instantaneous contact (watchdog)



3RP2505-.B

Wye-delta function

10

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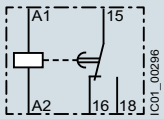
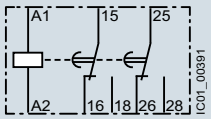
SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm NEW

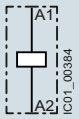
Monofunctions 3RP251. up to 3RP257.[1)]



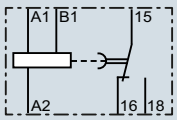
3RP251., 3RP2525-.A
ON-delay



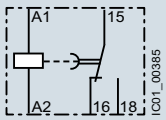
3RP2525-.B
ON-delay



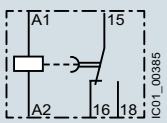
3RP2527
ON-delay, two-wire design



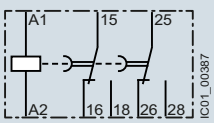
3RP2535
OFF-delay with control signal



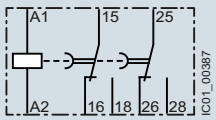
3RP2540-.A (N)[1)]
OFF-delay



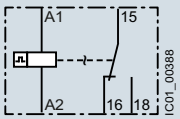
3RP2540-.A (O)[1)]
Positive passing make contact



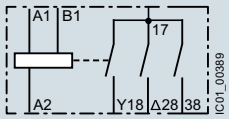
3RP2540-.B (N)[1)]
OFF-delay



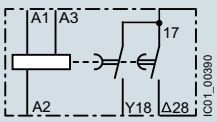
3RP2540-.B (O)[1)]
Positive passing make contact



3RP2555
Flashing, asymmetrical, starting with interval (clock-pulse relay)



3RP2560
Wye-delta function with overtravel function (idling)



3RP257.
Wye-delta function

[1)] 3RP2540 has a double function:
Function N = OFF-delay
Function O = positive passing make contact.

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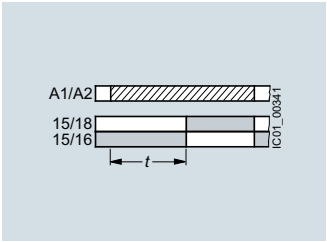
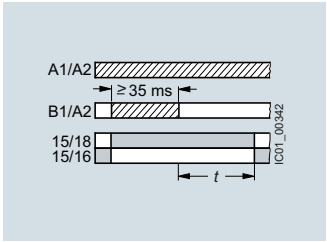
3RP25 function diagrams

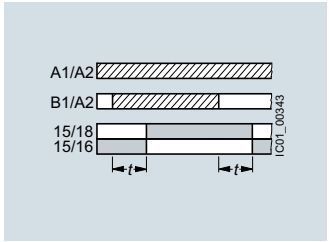
Multifunction 3RP2505-.A, 1 CO, 13 functions and 3RP2505-.C, 1 NO (semiconductor), 13 functions



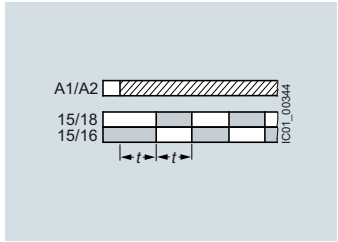
A
ON-delay



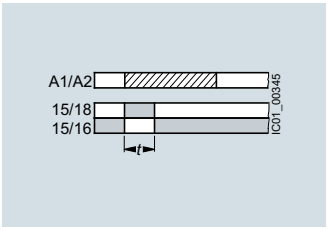
B
OFF-delay with control signal



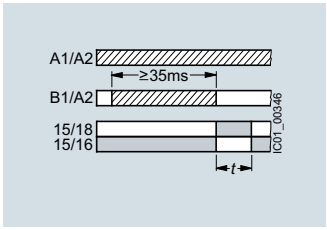
C
ON-delay/OFF-delay with control signal



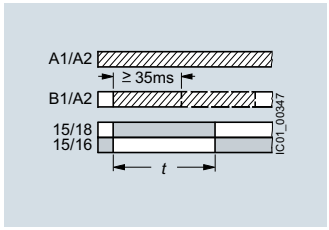
D
Flashing, symmetrical, starting with interval



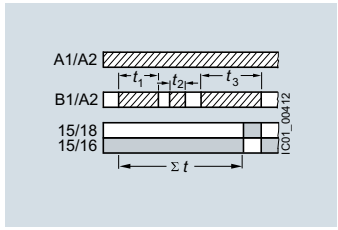
E
Passing make contact, interval relay



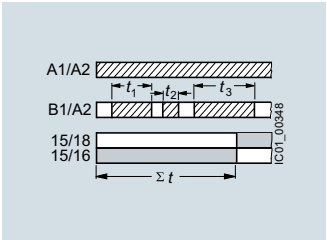
F
Retriggerable interval relay with deactivated control signal (passing break contact with control signal)



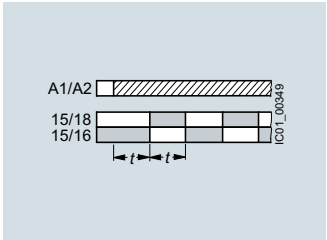
G
Passing make contact with control signal, not retriggerable (pulse-forming with control signal)



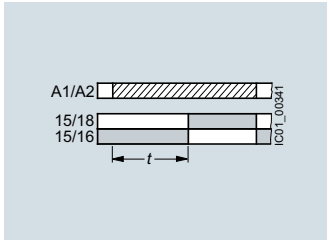
H
Additive ON-delay, instantaneous OFF with control signal



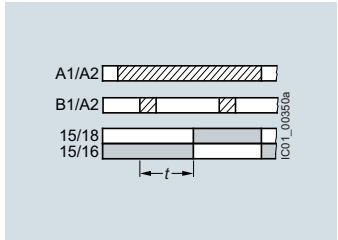
I
Additive ON-delay,with control signal



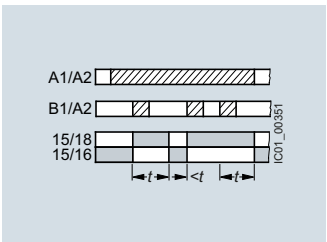
J
Flashing, symmetrical, starting with pulse



K
Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay)



L
Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay)



M
Retriggerable interval relay with activated control signal (watchdog)

Legend

A ... M identification letters

Timing relay energized

Contact closed

Contact open

10

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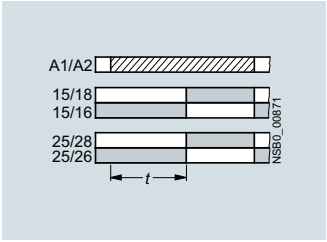
SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm NEW

Multifunction 3RP2505-.B, 27 functions, 2 CO

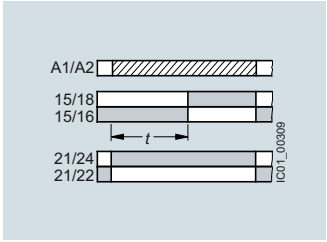
A

2 CO switched in parallel



ON-delay

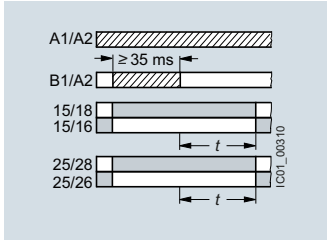
1 CO delayed +
1 CO instantaneous



ON-delay and instantaneous contact

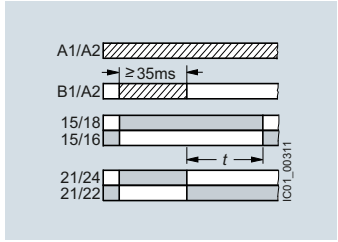
B

2 CO switched in parallel



OFF-delay with control signal

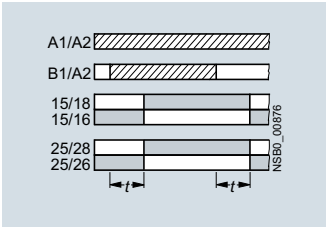
1 CO delayed +
1 CO instantaneous



OFF-delay with control signal and instantaneous contact

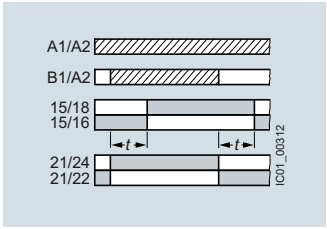
C

2 CO switched in parallel



ON-delay/OFF-delay with control signal

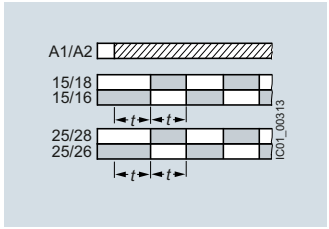
1 CO delayed +
1 CO instantaneous



ON-delay/OFF-delay with control signal and instantaneous contact

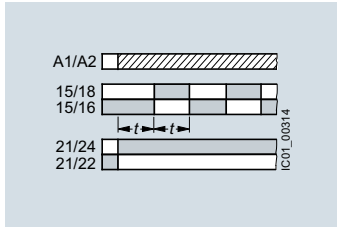
D

2 CO switched in parallel



Flashing, symmetrical, starting with interval

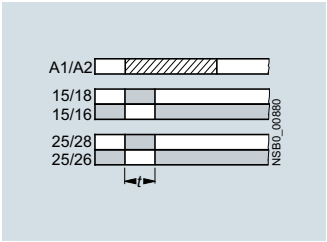
1 CO delayed +
1 CO instantaneous



Flashing, symmetrical, starting with interval and instantaneous contact

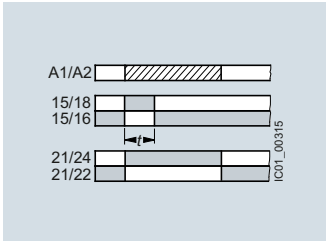
E

2 CO switched in parallel



Passing make contact, interval relay

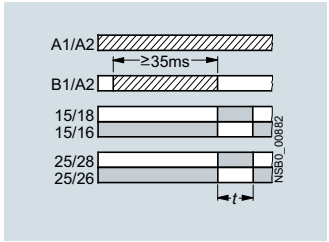
1 CO delayed +
1 CO instantaneous



Passing make contact, interval relay and instantaneous contact

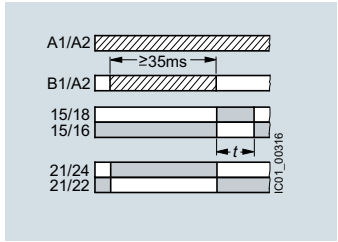
F

2 CO switched in parallel



Retriggerable interval relay with deactivated control signal (passing break contact with control signal)

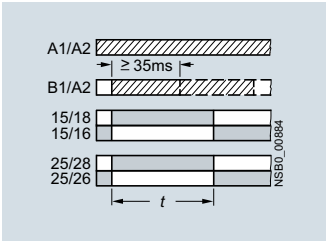
1 CO delayed +
1 CO instantaneous



Retriggerable interval relay with deactivated control signal (passing break contact with control signal) and instantaneous contact

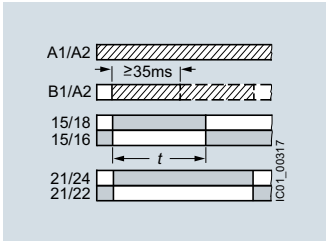
G

2 CO switched in parallel



Passing make contact with control signal, not retriggerable (pulse-forming with control signal)

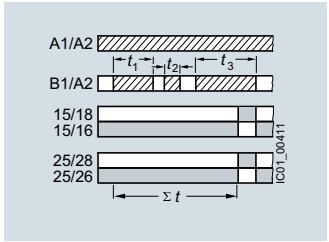
1 CO delayed +
1 CO instantaneous



Passing make contact with control signal, not retriggerable (pulse-forming with control signal) and instantaneous contact

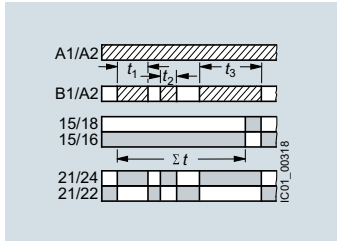
H

2 CO switched in parallel



Additive ON-delay, instantaneous OFF with control signal

1 CO delayed +
1 CO instantaneous



Additive ON-delay, instantaneous OFF with control signal and instantaneous contact

Legend

A ... M identification letters

- Timing relay energized
- Contact closed
- Contact open

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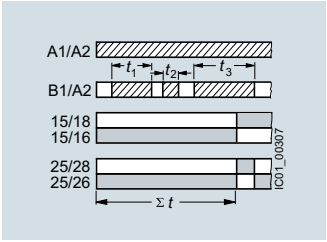
Multifunction 3RP2505-.B, 27 functions, 2 CO (continued)

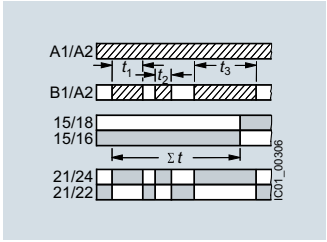
I

2 CO switched in parallel



Additive ON-delay with control signal

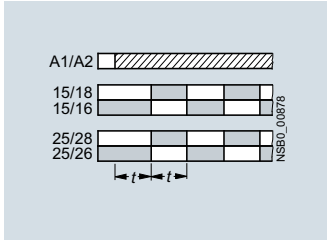
1 CO delayed +
1 CO instantaneous



Additive ON-delay with control signal and instantaneous contact

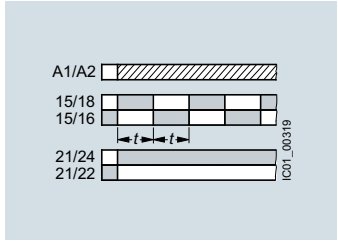
J

2 CO switched in parallel



Flashing, symmetrical, starting with pulse

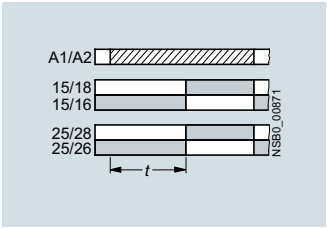
1 CO delayed +
1 CO instantaneous



Flashing, symmetrical, starting with pulse and instantaneous contact

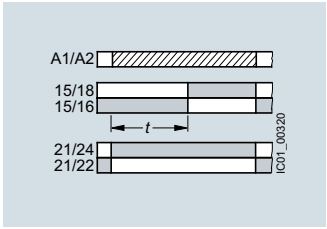
K

2 CO switched in parallel



Pulse-delayed (fixed pulse at 1 s and settable pulse delay)

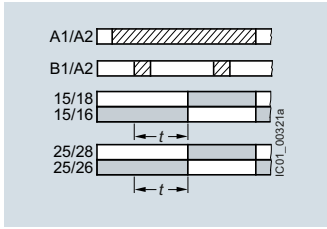
1 CO delayed +
1 CO instantaneous



Pulse-delayed (fixed pulse at 1 s and settable pulse delay) and instantaneous contact

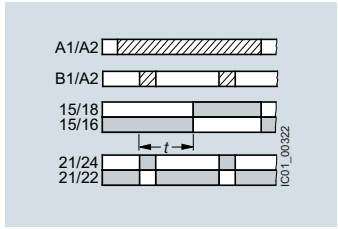
L

2 CO switched in parallel



Pulse-delayed with control signal (fixed pulse at 1 s and settable pulse delay)

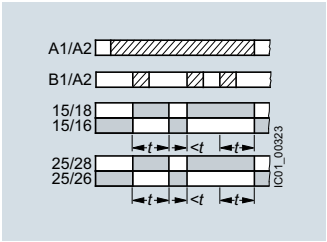
1 CO delayed +
1 CO instantaneous



Pulse-delayed with control signal (fixed pulse at 1 s and settable pulse delay) and instantaneous contact

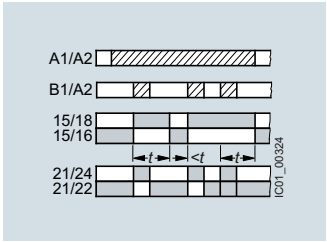
M

2 CO switched in parallel



Retriggerable interval relay with activated control signal (watchdog)

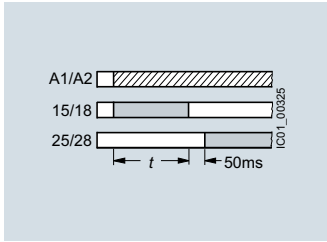
1 CO delayed +
1 CO instantaneous



Retriggerable interval relay with activated control signal and instantaneous contact (watchdog)

YΔ

2 CO switched in parallel or
1 CO delayed +
1 CO instantaneous



Wye-delta function

Legend

A ... M identification letters

Timing relay energized

Contact closed

Contact open

10

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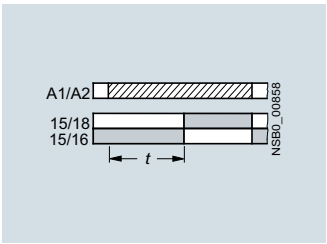
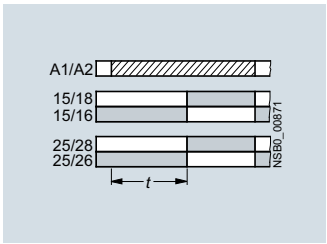
SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm NEW

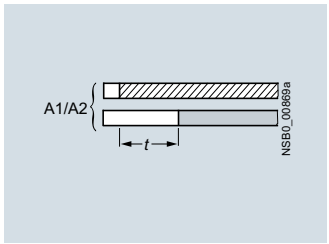
Monofunctions 3RP251. up to 3RP257.[1)]



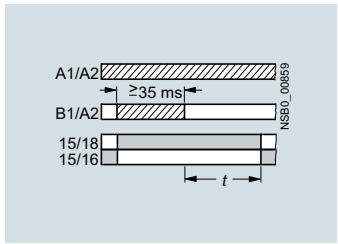
3RP251.-.AW30, 1 CO, ON-delay



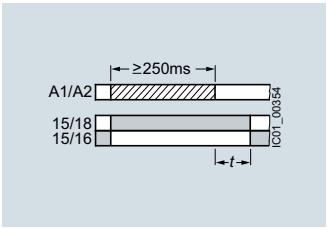
3RP2525-..W30, 2 CO, ON-delay



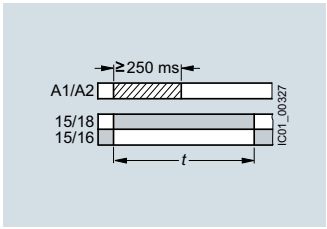
3RP2527-.EW30, 1 NO (semiconductor), ON-delay



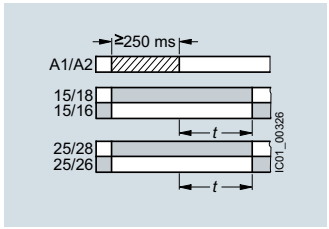
3RP2535-.AW30, 1 CO, OFF-delay with control signal



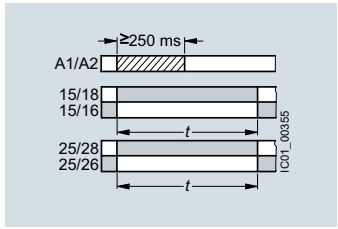
3RP2540-.A.30, 1 CO, OFF-delay (N)[1)]



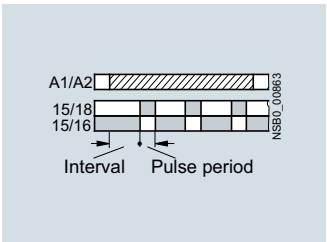
3RP2540-.A.30, 1 CO, positive passing make contact (O)[1)]



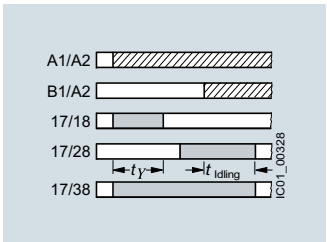
3RP2540-.B.30, 2 CO, OFF-delay (N)[1)]



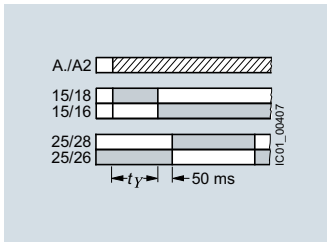
3RP2540-.B.30, 2 CO, positive passing make contact (O)[1)]



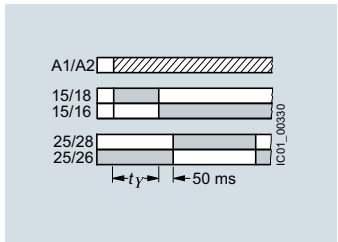
3RP2555-.AW30, 1 CO, flashing, asymmetrical, starting with interval (clock-pulse relay)



3RP2560-.SW30, 3 NO, wye-delta function with overtravel function (idling)



3RP257.-.NM20, 2 NO, wye-delta function



3RP257.-.NM30, 2 NO, wye-delta function

Legend

- Timing relay energized
- Contact closed
- Contact open

[1)] 3RP2540 has a double function:
Function N = OFF-delay
Function O = positive passing make contact.

10

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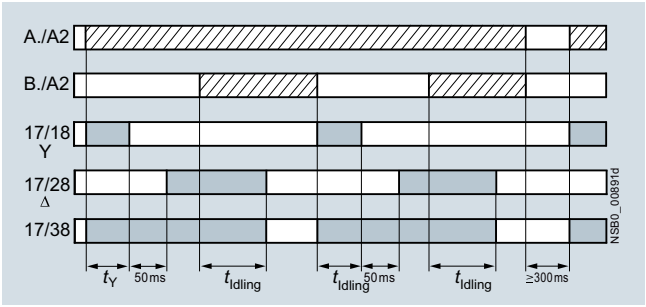
Possibilities of operation of the 3RP2560-.SW30 timing relay

Operation 1: Start contact B./A2 is open when control supply voltage A./A2 is applied.

The control supply voltage is applied to A./A2 and there is no control signal on B./A2. This starts the Y/Δ timing. The idling time (coasting time) is started by applying a control signal to B./A2. When the set time t_{Idling} (30 ... 600 s) has elapsed, the output relays (17/16 and 17/28) are reset. If the control signal on B./A2 is switched off (minimum OFF period 270 ms), a new timing is started.

Note:

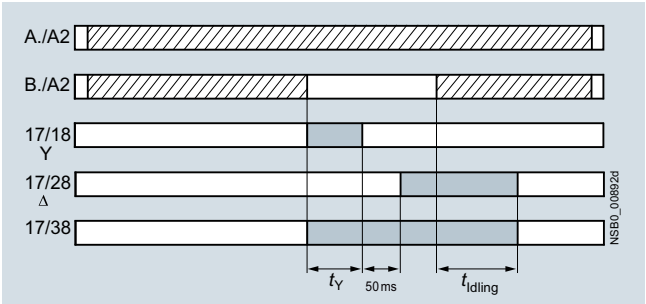
Observe response time (dead time) of 400 ms on energizing control supply voltage until contacts 17/18 and 17/16 close.



Operation 1

Operation 2: Start contact B./A2 is closed when control supply voltage A./A2 is applied.

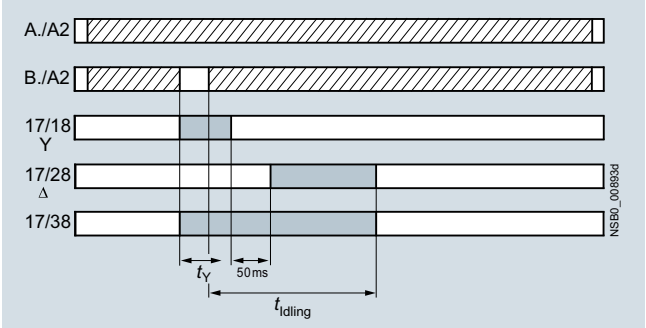
If the control signal B./A2 is already present when the control supply voltage A./A2 is applied, **no** timing is started. The timing is only started when the control signal B./A2 is switched off.



Operation 2

Operation 3: Start contact B./A2 closes while star time is running

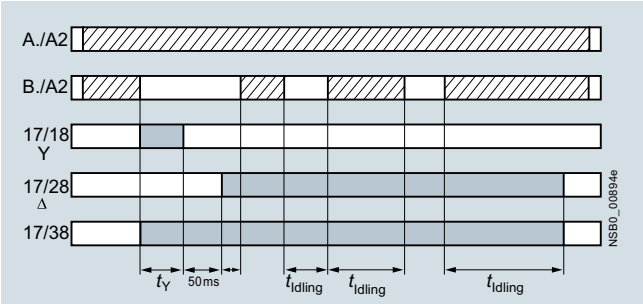
If the control signal B./A2 is applied again during the star time, the idling time starts and the timing is terminated normally.



Operation 3

Operation 4: Start contact B./A2 opens while delta time is running and is applied again

If the control signal on B./A2 is applied and switched off again during the delta time, although the idling time has not yet elapsed, the idling time (coasting time) is reset to zero. If the control signal is re-applied to B./A2, the idling time is restarted.



Operation 4

Legend

- Timing relay energized
- Contact closed
- Contact open

t_Y = Star time 1 ... 20 s

t_{Idling} = Idling time (coasting time) 30 ... 600 s

Note:

The following applies to all operations: The pressure switch controls the timing via B./A2.

Application example based on standard operation (operation 1): For example, use of 3RP2560 for compressor control

Frequent starting of compressors strains the network, the machine, and the increased costs for the operator. The new timing relay prevents frequent starting at times when there is high demand for compressed air. A special control circuit prevents the compressor from being switched off immediately when the required air pressure in the tank has been reached. Instead, the valve in the intake tube is closed and the compressor runs in "Idling" mode, i.e. in no-load operation for a specific time which can be set from 30 ... 600 s.

If the pressure falls within this time, the motor does not have to be restarted again, but can return to nominal load operation from no-load operation.

If the pressure does not fall within this idling time, the motor is switched off.

The pressure switch controls the timing via B./A2.

The control supply voltage is applied to A./A2 and the start contact B./A2 is open, i.e. there is no control signal on B./A2 when the control supply voltage is applied. The pressure switch signals "too little pressure in system" and starts the timing by way of terminal B./A2. The compressor is started, enters Y/Δ operation, and fills the pressure tank.

When the pressure switch signals "sufficient pressure", the control signal B./A2 is applied, the idling time (coasting time) is started, and the compressor enters no-load operation for the set period of time from 30 ... 600 s. The compressor is then switched off. The compressor is only restarted if the pressure switch responds again (low pressure).

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SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm NEW

Selection and ordering data

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H


3RP2505-2AB30


3RP2505-2BB30


3RP2525-2AW30


3RP2540-2AW30


3RP2555-2AW30


3RP2576-2NW30

Number of NO contacts		Number of CO contacts		Semi-conductor output	Adjustable time	Control supply voltage		DT	Screw terminals	DT	Spring-type terminals (push-in)	
Instantaneous switching	Delayed switching	Instantaneous switching	Delayed switching			At AC 50/60 Hz	At DC		Article No. / Price per PU		Article No. / Price per PU	
						V	V					
3RP2505-.A and 3RP2505-.C timing relays, 13 functions												
The functions can be adjusted by means of function selector switches on the device. With a set of foil labels the timing relay can be legibly marked with the functions which can be selected on the timing relay. This is supplied together with the multifunctional timing relay. The same potential must be applied to terminals A. and B. Functions, see the overview of functions on page 10/44												
0	0	0	1	--	0.05 s ... 100 h	24	24	A	**3RP2505-1AB30**	A	**3RP2505-2AB30**	
						12 ... 240	12 ... 240	A	**3RP2505-1AW30**	A	**3RP2505-2AW30**	
0	1	0	0	3	0.05 s ... 100 h	12 ... 240	12 ... 240	A	**3RP2505-1CW30**	A	**3RP2505-2CW30**	
3RP2505-.B timing relay, 27 functions												
The functions can be adjusted by means of function selector switches on the device. With a set of foil labels the timing relay can be legibly marked with the functions which can be selected on the timing relay. This is supplied together with the multifunctional timing relay. The same potential must be applied to terminals A. and B. Functions, see the overview of functions on page 10/44												
0	0	1	1	--	0.05 s ... 100 h	24	24	A	**3RP2505-1BB30**	A	**3RP2505-2BB30**	
						400 ... 440	--	A	**3RP2505-1BT20**	A	**3RP2505-2BT20**	
						12 ... 240	12 ... 240	A	**3RP2505-1BW30**	A	**3RP2505-2BW30**	
3RP251. and 3RP252. timing relays, ON-delay												
0	0	0	1	--	0.5 ... 10 s	12 ... 240	12 ... 240	A	**3RP2511-1AW30**	A	**3RP2511-2AW30**	
					1 ... 30 s	12 ... 240	12 ... 240	A	**3RP2512-1AW30**	A	**3RP2512-2AW30**	
					5 ... 100 s	12 ... 240	12 ... 240	A	**3RP2513-1AW30**	A	**3RP2513-2AW30**	
					0.05 s ... 100 h	12 ... 240	12 ... 240	A	**3RP2525-1AW30**	A	**3RP2525-2AW30**	
0	0	0	2	--	0.05 s ... 100 h	24	24	A	**3RP2525-1BB30**	A	**3RP2525-2BB30**	
						12 ... 240	12 ... 240	A	**3RP2525-1BW30**	A	**3RP2525-2BW30**	
0	0	0	0	3	0.05 s... 240 s	12 ... 240	12 ... 240	A	**3RP2527-1EW30**	A	**3RP2527-2EW30**	
3RP2535 timing relays, OFF-delay with control signal												
0	0	0	1	--	0.05 s ... 100 h	12 ... 240	12 ... 240	A	**3RP2535-1AW30**	A	**3RP2535-2AW30**	
3RP2540 timing relays, OFF-delay, without control signal, non-volatile, passing make contact												
0	0	0	1	--	0.05 s ... 600 s	24	24	A	**3RP2540-1AB30**	A	**3RP2540-2AB30**	
						12 ... 240	12 ... 240	A	**3RP2540-1AW30**	A	**3RP2540-2AW30**	
0	0	0	2	--	0.05 s ... 600 s	24	24	A	**3RP2540-1BB30**	A	**3RP2540-2BB30**	
						12 ... 240	12 ... 240	A	**3RP2540-1BW30**	A	**3RP2540-2BW30**	
3RP2555 timing relays, clock-pulse relay, flashing, asymmetrical												
0	0	0	1	--	0.05 s ... 100 h	12 ... 240	12 ... 240	A	**3RP2555-1AW30**	A	**3RP2555-2AW30**	
3RP2560 timing relays, wye-delta function with overtravel function (idling)												
3	0	0	0	--	1 ... 20 s	12 ... 240	12 ... 240	A	**3RP2560-1SW30**	A	**3RP2560-2SW30**	
3RP257. timing relays, wye-delta function												
1	1	0	0	--	1 ... 20 s	200 ... 240[1)]	--	A	**3RP2574-1NM20**	A	**3RP2574-2NM20**	
						12 ... 240	12 ... 240	A	**3RP2574-1NW30**	A	**3RP2574-2NW30**	
1	1	0	0	--	3 ... 60 s	200 ... 240[1)]	--	A	**3RP2576-1NM20**	A	**3RP2576-2NM20**	
						12 ... 240	12 ... 240	A	**3RP2576-1NW30**	A	**3RP2576-2NW30**	

✓ Available, -- Not available

[1)] With 3RP2574-.NM20 and 3RP2576-.NM20, connection of 380 ... 440 V AC, 50/60 Hz control voltage is also possible.

For accessories, see page 10/59.

*** You can order this quantity or a multiple thereof.**
Illustrations are approximate

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NEW **SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm**

Accessories

	Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Accessories for enclosures							
	Sealing covers						
 3ZY1321-1AA00	• 17.5 mm	A	**3ZY1321-1AA00**		1	5 units	41L
 3ZY1321-2AA00	• 22.5 mm	A	**3ZY1321-2AA00**		1	5 units	41L
 3ZY1311-0AA00	**Push-in lugs** For wall mounting	A	**3ZY1311-0AA00**		1	10 units	41L
 3ZY1440-0AA00	**Coding pins** For removable terminals of SIRIUS devices in the industrial standard mounting rail enclosure; enable the mechanical coding of terminals	A	**3ZY1440-1AA00**		1	12 units	41L
Terminals for SIRIUS devices in the industrial standard mounting rail enclosure							
 3ZY1122-1BA00	**Removable terminals**		**Screw terminals**				
	• 2-pole, screw terminals 1 x 4 mm²	A	**3ZY1122-1BA00**		1	6 units	41L
 3ZY1122-2BA00			**Spring-type terminals (push-in)**				
	• 2-pole, push-in terminals 1 x 4 mm²	A	**3ZY1122-2BA00**		1	6 units	41L
Tools for opening spring-type terminals							
 3RA2908-1A	**Screwdrivers** For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated	A	**Spring-type terminals** **3RA2908-1A**		1	1 unit	41B

10

* You can order this quantity or a multiple thereof.
Illustrations are approximate