General data

Overview



7PV15, SIRIUS 3RP25 and SIRIUS 3RP20 timing relays

More information

Homepage, see www.siemens.com/relays
Industry Mall, see www.siemens.com/product?3RP

Electronic timing relays are used in control, starting, and protective circuits for all switching operations involving time delays. Their fully developed concept and space-saving, compact design make the SIRIUS 3RP timing relays ideal modules for control cabinet, switchgear and control manufacturers in the industry.

With their narrow design, the 7PV15 timing relays are ideal in particular for use in heating, ventilation and air-conditioning systems and in compressors. All 7PV15 timing relays in this enclosure version are suitable for snap-on mounting onto TH 35 standard mounting rails according to IEC 60175. The enclosure complies with DIN 43880.

Benefits

- Clear-cut basic range with five basic units in the case of the 7PV15 timing relays, and seven basic units in the case of the 3RP timing relays
- Logistic advantages provided by versions with wide voltage range and wire setting range
- No tools required for assembly or disassembly on standard mounting rails
- Cadmium-free relay contacts
- Recyclable, halogen-free enclosure
- Optimum price/performance ratio

- Versions with logical separation
- Low variance: One design for distribution boards and for control cabinets
- Compliance with EMC requirements for buildings
- Environmentally friendly laser inscription instead of printing containing solvents
- Timing relays suitable for the 3RT miniature contactors allow smaller tier spacing
- Versions with screw terminals or alternatively with spring-type terminals

Application

Timing relays with ON-delay

- Interference pulse suppression (gating of interference pulses)
- Gradual startup of motors so as not to overload the power supply

Timing relays with OFF-delay

- Generation of overtravel functions following removal of voltage
- Gradual, delayed shutdown, e.g. of motors or fans, to allow a plant to be shut down selectively

Wye-delta timing relays

 Switching over motors from Wye to delta with a dead interval of 50 ms to prevent phase-to-phase short circuits

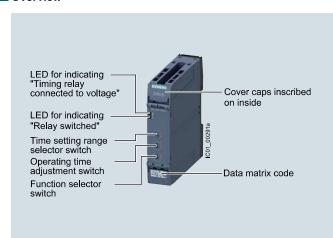
Multifunctional timing relays

- Maximum flexibility, with a device for every application
- Available with relay and semiconductor output

Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

Overview



SIRIUS 3RP25 timing relays

More information

Homepage, see www.siemens.com/relays

Industry Mall, see www.siemens.com/product?3RP25

For the conversion tool, e.g. from 3RP15 to 3RP25, see www.siemens.com/sirius/conversion-tool

Electronic timing relays for general use in control systems and mechanical engineering with:

- 1 or 2 CO, 1 NO (semiconductor) or 3 NO
- Monofunction or multifunction
- Combination voltage or wide voltage range
- Single or selectable time setting ranges
- Switch position indication and voltage indication by LED

Article No. scheme

Product versions		Article	num	ber			
Timing relays		3RP25		- 1			0
Product function/	Multifunction		0 5				7 time ranges 0.05 s 100 h
time setting ranges	ON-delay		1 1				1 time range 0.5 10 s
			1 2				1 time range 1 3 s
			1 3				1 time range 5 100 s
			2 5				7 time ranges 0.05 s 100 h
			2 7				4 time ranges 0.05 s 240 s
	OFF-delay with control signal		3 5				7 time ranges 0.05 s 100 h
	OFF-delay without control signal, non-volatile, passing make contact		4 0				7 time ranges 0.05 s 600 s
	Clock-pulse relay, flashing, asymmetrical		5 5				7 time ranges 0.05 s 100 h
	Wye-delta function with coasting function (idling)		6 0				Wye-delta 1 20 s, coasting time (idling) 600 s
	Wye-delta function		7 4				1 time range 1 20 s
			7 6				1 time range 3 60 s
Connection type	Screw terminals				1		
	Spring-type terminals (push-in)				2		
Contacts	1 CO				Α		
	2 CO				В		
	Semiconductors (transistor NPN)				С		
	Semiconductors (thyristor), two-wire				Ε		
	1 NO + 1 NO (SD)				N		
	2 CO positively driven				R		
	3 NO				s		
Control supply voltage	24 V AC/DC					B 3	
	200 240 V/380 440 V AC					M 2	
	400 440 V AC					T 2	
	12 240 V AC/DC or 24 240 V AC/DC (3RP2505RW30)					W 3	
Example		3RP25	0 5	_	1 A	B 3	0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

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

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

3RP2505 multifunctional timing relays

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

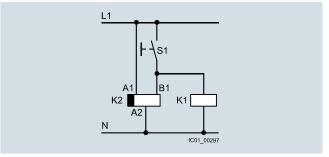
The functions of the 3RP2505 multifunctional timing relays can be set by means of the function selector switch. Whether both CO contacts are switched in parallel or one CO contact with a delay and one instantaneously and the choice of time setting range are set by means of the time setting range selector switch. The exact operating time can be adjusted with the operating time switch.

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.

Note:

The activation of loads parallel to the start input is permissible when using AC/DC control voltage (see circuit diagram).



Diagram

Overview of functions

0.10111011	r of functions	
Identifica- tion letter	13 functions 1 CO contact (1 CO), 1 NO contact (1 NO) semiconductor, 2 CO contacts switched in parallel (2 CO) or 2 CO contacts positively driven and switched in parallel with delay (2 CO)	27 functions 13 functions (A - M) 2 CO contacts switched in parallel (2 CO) + 13 functions (A - M) 1 CO delayed contact + 1 CO instantaneous contact (1 CO + 1 CO) and wye-delta function
Α	ON-delay	ON-delay and instantaneous contact
В	OFF-delay with control signal	OFF-delay with control signal and instantaneous contact
С	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
Н	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

Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

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

Standards and approvals

- IEC 60721-3-3 "Classification of environmental conditions"
- IEC 61812-1/DIN VDE 0435 Part 2021 "Specified time relays for industrial use"
- IEC 61000-6-2, IEC 61000-6-3 and IEC 61000-6-4 "Electromagnetic compatibility"
- IEC 60947-5-1 "Low-voltage switchgear and controlgear Electromechanical control circuit devices"

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.

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

Technical specifications

More information

Technical specifications, see
https://support.industry.siemens.com/cs/ww/en/ps/16354/td
Manual, see
https://support.industry.siemens.com/cs/ww/en/view/103532830

Internal circuit diagrams, see CAx Download Manager https://support.industry.siemens.com/my/ww/en/CAxOnline#CAxOnline FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/16354/faq

Article number		3RP2505A, 3RP2505C, 3RP251., 3RP2525A, 3RP2527, 3RP253., 3RP255.	3RP2505B, 3RP2505R, 3RP2525B, 3RP254., 3RP256., 3RP257.
Width x height x depth	mm - W	17.5 x 100 x 90	22.5 x 100 x 90

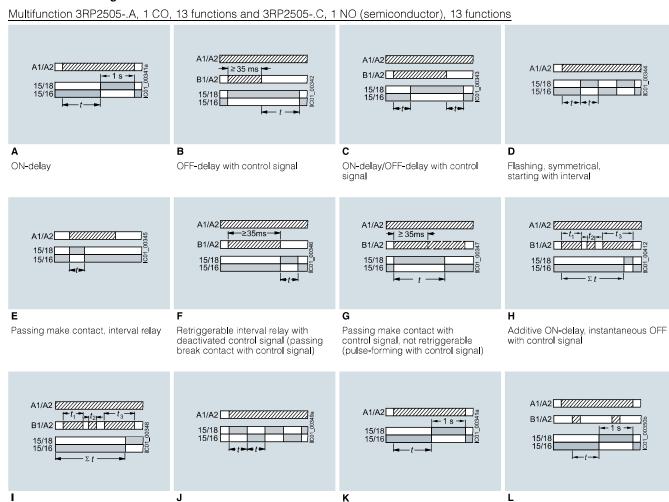
Article number		3RP25AB30, 3RP25AW30, 3RP25BB30, 3RP25BW30, 3RP25NW30, 3RP25SW30	3RP25BT20, 3RP25NM20	3RP25CW30	3RP25EW30	3RP25RW30
General technical specification	ıs					
Insulation voltage for overvoltage category III to IEC 60664 for pollution degree 3, rated value	V AC	300	500	300		300
Ambient temperature During operation During storage	°C °C	-25 +60 -40 +85				- 40 +70
Operating range factor of the control supply voltage, rated value • At AC - At 50 Hz - At 60 Hz • At DC		0.85 1.1 0.85 1.1 0.85 1.1	ļ	0.85 1.1	0.85 1.1	0.7 1.1 0.7 1.1 0.7 1.1
Switching capacity current with inductive load	Α	0.01 3	0.01 3	0.01 1	0.01 0.6	0.01 3
Operational current of the auxiliary contacts • At AC-15 - At 24 V - At 250 V - At 400 V • At DC-12 - At 24 V - At 125 V - At 250 V • At DC-13 - At 24 V - At 125 V - At 25 V • At 125 V - At 25 V - At 25 V Thermal current	A A A A A A A A A A A A A A A A A A A	3 3 1 0.2 0.1	3 3 3 1 0.2 0.1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 0.6	3 3 1 0.2 0.1
	А	-	5		0.6	5
Mechanical endurance (operating cycles)		10 000 000				
Electrical endurance (operating cycles) for AC-15 at 230 V		100 000		300 000	100 000	

Article number		3RP2510	3RP2520
Type of electrical connection for auxiliary and control circuits		Screw terminals	Spring-type terminals (push-in)
Design of thread of connection screw		M3	-
Tightening torque	Nm	0.6 0.8	
Type of connectable conductor cross-sections • Solid • Finely stranded with end sleeve • For AWG cables - Solid - Stranded		1x (0.5 4 mm²), 2 x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2 x (0.5 1.5 mm²) 1x (20 12), 2 x (20 14) 1x (20 12), 2 x (20 14)	1x (0.5 4 mm ²) 1x (0.5 2.5 mm ²) 1x (20 12) 1x (20 12)

Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

3RP25 function diagrams



Flashing, symmetrical, starting with

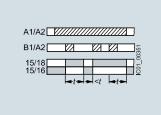
pulse

Pulse-delayed (fixed pulse (at 1 s)

and settable pulse delay)

Pulse-delayed with control signal (fixed

pulse (at 1's) and settable pulse delay)



Additive ON-delay with control signal

М

Retriggerable interval relay with activated control signal (watchdog)

Legend

A ... M Identification letters

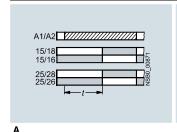
ZZZ Timing relay energized

Contact closed

Contact open

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm





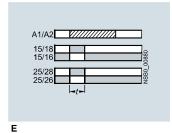
ON-delay

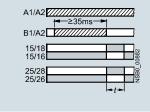
BOFF-delay with control signal

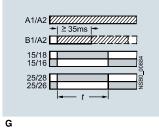
C ON-delay/OFF-delay with control signal

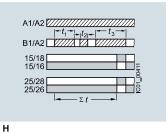
Flashing, symmetrical, starting with interval

D







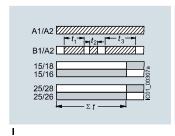


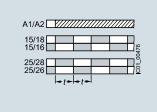
Passing make contact, interval relay

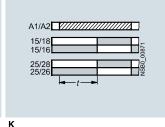
Retriggerable interval relay with deactivated control signal (passing break contact with control signal)

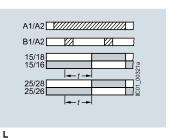
Passing make contact with control signal, not retriggerable (pulse-forming with control signal)

Additive ON-delay, instantaneous OFF with control signal









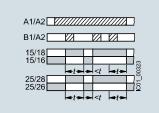
Additive ON-delay with control signal

Flashing, symmetrical, starting with pulse

J

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

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



м

Retriggerable interval relay with activated control signal (watchdog)

Legend

A ... M Identification letters

ZZZ Timing relay energized

Contact closed

Contact open

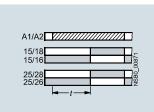
Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

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

Α

2 CO contacts switched in parallel



·

15/18 15/16 21/24 21/22

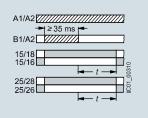
1 delayed CO contact +

1 instantaneous CO contact

ON-delay and instantaneous contact

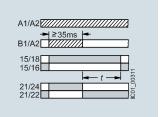
В

2 CO contacts switched in parallel



OFF-delay with control signal

1 delayed CO contact + 1 instantaneous CO contact

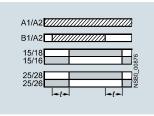


OFF-delay with control signal and instantaneous contact

С

ON-delay

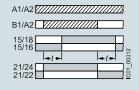
2 CO contacts switched in parallel



ON-delay/OFF-delay with control sig-

1 instantaneous CO contact

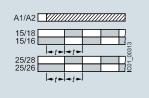
1 delayed CO contact +



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

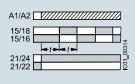
D

2 CO contacts switched in parallel



Flashing, symmetrical, starting with interval

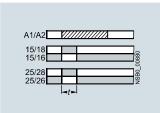
1 delayed CO contact + 1 instantaneous CO contact



Flashing, symmetrical, starting with interval and instantaneous contact

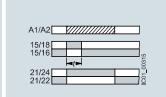
Ε

2 CO contacts switched in parallel



Passing make contact, interval relay

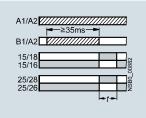
1 delayed CO contact + 1 instantaneous CO contact



Passing make contact, interval relay and instantaneous contact

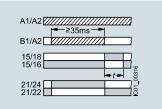
F

2 CO contacts switched in parallel



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

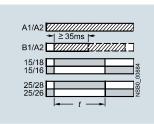
1 delayed CO contact + 1 instantaneous CO contact



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

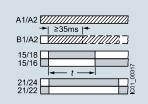
G

2 CO contacts switched in parallel



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

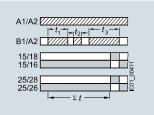
1 delayed CO contact + 1 instantaneous CO contact



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

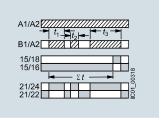
Н

2 CO contacts switched in parallel



Additive ON-delay, instantaneous OFF with control signal

1 delayed CO contact + 1 instantaneous CO contact



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

Legend

A ... H Identification letters

- ZZZ Timing relay energized
- Contact closed
- Contact open

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

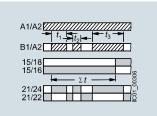
Multifunction 3RP2505-.B, 27 functions, 2 CO contacts (continued)

2 CO contacts switched in parallel

A1/A2 $t_1 = t_1 = t_3 = t_3 = t_3$ B1/A2 $t_2 = t_3 = t_3 = t_3$

Additive ON-delay with control signal

1 delayed CO contact + 1 instantaneous CO contact



Additive ON-delay with control signal and instantaneous contact

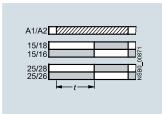
2 CO contacts switched in parallel

Flashing, symmetrical, starting with pulse

1 delayed CO contact + 1 instantaneous CO contact

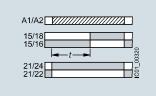
Flashing, symmetrical, starting with pulse and instantaneous contact

2 CO contacts switched in parallel



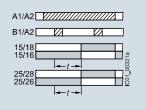
Pulse-delayed (fixed pulse at 1 s and settable púlse delay)

1 delayed CO contact + 1 instantaneous CO contact



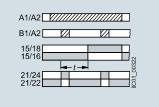
Pulse-delayed (fixed pulse at 1 s and settable pulse delay) and instantaneous contact

2 CO contacts switched in parallel



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

1 delayed CO contact + 1 instantaneous CO contact



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

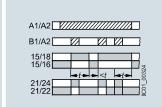
2 CO contacts switched in parallel

7/1

Retriggerable interval relay with

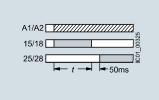
activated control signal (watchdog)

1 delayed CO contact + 1 instantaneous CO contact



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

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



Wye-delta function

Legend

I ... M Identification letters

ZZZ Timing relay energized

Contact closed

Contact open

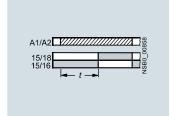
B1/A2 □

25/28 25/26

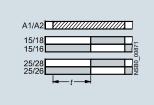
Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

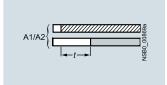
Monofunctions 3RP251. to 3RP257.1)



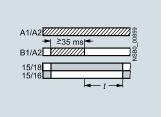
3RP251.-.AW30, 1 CO, ON-delay



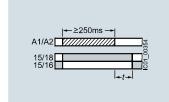
3RP2525-..W30, 2 CO, ON-delay



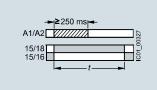
3RP2527-,EW30, 1 NO (semiconductor), ON-delay



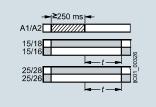
3RP2535-.AW30, 1 CO, OFF-delay with control signal



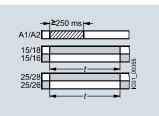
3RP2540-.A.30, 1 CO, OFF-delay (N)¹⁾



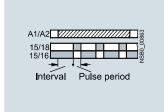
3RP2540-.A.30, 1 CO, positive passing make contact (O)¹⁾



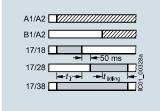
3RP2540-.B.30, 2 CO, OFF-delay (N)¹⁾



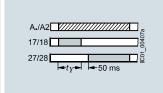
3RP2540-.B.30, 2 CO, positive passing make contact (O)¹⁾



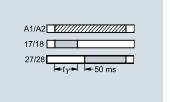
3RP2555-.AW30, 1 CO, flashing, asymmetrical, starting with interval (clock-pulse relay)



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

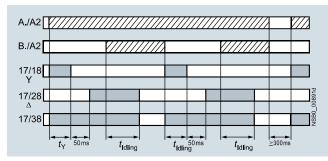
 ³RP2540 has a double function:
 Function N = OFF-delay
 Function O = Positive passing make contact

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 Ya timing. The idling time (coasting time) is started by applying a control signal to B./A2. When the set time $t_{\rm Idling}$ (30 ... 600 s) has elapsed, the output relays (17/38 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:

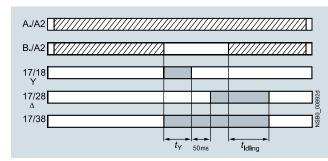
Observe response time (dead time) of 400 ms on energizing control supply voltage until contacts 17/18 and 17/38 close.



Operation 1

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

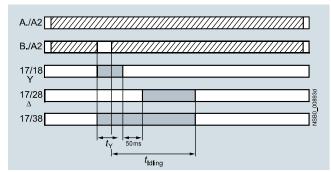
If the control signal B./A2 is already present when the control supply voltage A./A2 is applied, **no** timing is started. The timing is only started when the control signal B./A2 is switched off.



Operation 2

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

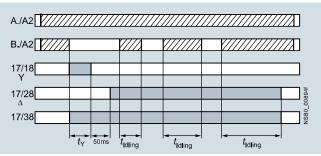
If the control signal B./A2 is applied again during the star time, the idling time starts and the timing is terminated normally.



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

 $t_{\text{Idling}} = \text{Idling time (coasting time) } 30 \dots 600 \text{ s}$

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 $\Upsilon\Delta$ 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).

Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

Selection and ordering data













2505 - 2AB30	3RP2505-2BB30	3RP2525 - 2AW30	3RP2540-2AW30	3RP2555-2AW30

Number NO cont		Number CO cont		Semi- conduc- tor	Adjustable time	Control suppl	y voltage	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Instan- taneous switch- ing	Delayed switch- ing	Instan- taneous switch- ing				At 50/60 Hz AC	At DC				021,141)		
						V	V	d					
13 fund	ctions												
0	0	0	1	No	0.05 s 100 h	24 12 240	24 12 240	2 2	3RP2505-□AB30 3RP2505-□AW30		1 1	1 unit 1 unit	41H 41H
0	1	0	0	Yes	0.05 s 100 h	12 240	12 240	2	3RP2505-□CW30		1	1 unit	41H
13 fund	ctions, s	uitable t	for rai l w	ay applic	cations								
0	0	0	2 ¹⁾	No	0.05 s 100 h	24 240	24 240	2	3RP2505-□RW30		1	1 unit	41H
27 fund	ctions												
0	0	0	2 ²⁾	No	0.05 s 100 h	24	24	2	3RP2505-□BB30		1	1 unit	41H
						400 440 12 240	 12 240	2	3RP2505-□BT20 3RP2505-□BW30		1	1 unit 1 unit	41H 41H
ON-de	av					12 240	12 240		5111 2505-LIB W50		'	- T GITT	7111
0	0	0	1	No	0.5 10 s	12 240	12 240	2	3RP2511-□AW30		1	1 unit	41H
	•				1 30 s	12 240	12 240	2	3RP2512-□AW30		1	1 unit	41H
					5 100 s 0.05 s 100 h	12 240 12 240	12 240 12 240	2	3RP2513-□AW30 3RP2525-□AW30		1	1 unit 1 unit	41H 41H
0	0	0	2	No	0.05 s 100 h	24	24	2			1	1 unit	41H
	U	0		140	0.05 \$ 100 11	12 240	12 240	2	3RP2525-□BB30 3RP2525-□BW30		1	1 unit	41H
0	1	0	0	Yes	0.05 s 240 s	12 240	12 240	2	3RP2527-□EW30		1	1 unit	41H
OFF-de	e l ay with	ı contro	I signal										
0	0	0	1	No	0.05 s 100 h	12 240	12 240	2	3RP2535-□AW30		1	1 unit	41H
OFF-de	elay with	out con	trol sigr	nal, non-	volatile, passin	g make cont	act						
0	0	0	1	No	0.05 s 600 s	24	24	2	3RP2540-□AB30		1	1 unit	41H
						12 240	12 240	2	3RP2540-□AW30		1	1 unit	41H
0	0	0	2	No	0.05 s 600 s	24 12 240	24 12 240	2	3RP2540-□BB30 3RP2540-□BW30		1	1 unit 1 unit	41H 41H
Olaska			h.*			12 240	12 240		OH 2040 BHOO		1		71111
				ymmetri		10 010	10 010						4411
0	0	0	1	No	0.05 s 100 h	12 240	12 240	2	3RP2555-□AW30		1	1 unit	41H
wye-a					ion (idling)	10 010	10 010						4411
1	2	0	0	No	1 20 s	12 240	12 240	2	3RP2560-□SW30		1	1 unit	41H
Wye-d	elta func					0)							
1	1	0	0	No	1 20 s	380 440 ³⁾ 12 240	 12 240	2	3RP2574-□NM20 3RP2574-□NW30		1	1 unit 1 unit	41H 41H
1	1	0	0	No	3 60 s	380 440 ³⁾		2	3RP2576-□NM20		1	1 unit	41H
'	'	J		110	o 00 3	12 240	12 240	2	3RP2576-□NW30		i	1 unit	41H

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)
- 1) Positively-driven contacts.
- ²⁾ Optionally 1 CO delayed + 1 CO instantaneous.
- 3) With 3RP2574-,NM20 and 3RP2576-,NM20, connection of 200 ... 240 V AC, 50/60 Hz control voltage is also possible.

Notes:

For accessories, see page 10/49.

In the case of 3RP2505, 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 included in the scope of supply. The same potential must be applied to terminals A. and B.

For functions, see the overview of functions on page 10/39.

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

Accessories

More information

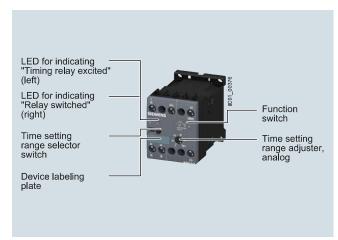
You can find information on configuring and dimensioning the accessories in the manual, see https://support.industry.siemens.com/cs/ww/en/view/103532830

	Version	SD	Article No. Price per PU		PS*	PG
		d		021,111,		
Accessories for e	nclosures					
	Sealing covers					
	• 17.5 mm	2	3ZY1321-1AA00	1	5 units	41L
07/4004 44400						
3ZY1321-1AA00	• 22.5 mm	2	3ZY1321-2AA00	1	5 unito	41L
3ZY1321-2AA00	• 22.5 11111	2	3211321-2AAUU		5 units	4IL
0211021-27700	Push-in lugs	2	3ZY1311-0AA00	1	10 units	41L
3ZY1311-0AA00	For wall mounting					
3ZY1440-1AA00	Coding pins For removable terminals of SIRIUS devices in the industrial standard mounting rail enclosure; they enable the mechanical coding of terminals	2	3ZY1440-1AA00	1	12 units	41L
Terminals for SIRI enclosure	US devices in the industrial standard mounting rail					
47	Removable terminals		Screw terminals			
	• 2-pole, 1 x 4 mm²	2	3ZY1122-1BA00	1	6 units	41L
3ZY1122-1BA00						
			Spring-type terminals (push-in)			
	• 2-pole, 1 x 4 mm²	2	3ZY1122-2BA00	1	6 units	41L
3ZY1122-2BA00						
Tools for opening	spring-type terminals			_		
-	Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm,		Spring-type terminals (push-in)			
	titanium gray/black, partially insulated	2	3RA2908-1A	1	1 unit	41B
3RA2908-1A						

Timing Relays

SIRIUS 3RP20 timing relays, 45 mm

Overview



SIRIUS 3RP20 timing relays

SIRIUS 3RP20 electronic timing relays for use in control systems and mechanical engineering with:

- 1 or 2 CO contacts
- Multifunction or monofunction
- Wide voltage range or combination voltage
- Single or selectable time setting ranges
- Switch position indication and voltage indication by LED

Standards

The timing relays comply with:

- IEC 60721-3-3 "Classification of environmental conditions"
- IEC 61812-1 "Specified time relays for industrial use"
- IEC 61000-6-2 and EN 61000-6-4 "Electromagnetic compatibility"
- IEC 60947-5-1 "Low-voltage switchgear and controlgear Electromechanical control circuit devices"
- IEC 60947-1, Appendix N "Protective separation"

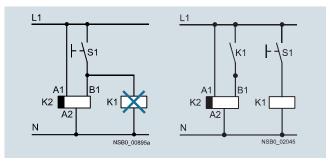
Multifunction

The functions of the 3RP2005 multifunctional timing relays can be set by means of the function selector switch. Insert labels can be used to adjust different functions of the timing relay clearly and unmistakably. The corresponding labels can be ordered as an accessory. The same potential must be applied to terminals A. and B.

For functions, see 3RP2901 label set, page 10/55.

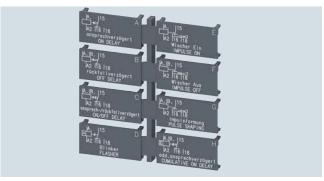
Note:

The activation of loads parallel to the start input is not permissible when using AC control voltage (see diagrams).



Diagrams

Accessories



Label set for marking the multifunctional relay

Article No. scheme

Product versions		Article num	ber			
SIRIUS timing relays,	45 mm enclosure	3RP20 □ □	1 – [⊒ 3	3 0
Product function/	Multifunction	0 5				15 time ranges 0.05 s 100 h
time setting ranges	ON-delay	2 5				15 time ranges 0.05 s 100 h
Connection type	Screw terminals		1			
	Spring-type terminals		2	2		
Contacts	1 CO			Α		
	2 CO			В		
Control supply voltage	24 V AC/DC/100 127 V AC				2	Combination voltage
	24 V AC/DC/200 240 V AC			- 1	>	Combination voltage
	24 240 V AC/DC			1	W	Wide voltage range
Example		3RP20 0 5	- 1	A	3	3 0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

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

SIRIUS 3RP20 timing relays, 45 mm

Benefits

- Suitable for 3RT miniature contactors
- Uniform design
- Ideal for small distance between standard mounting rails and/or for low mounting depth, e.g. in control boxes
- Labels are used on the multifunctional time relay to document the function that has been set

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.

Technical specifications

More information		
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16356/td Operating Instructions, see		Internal circuit diagrams, see https://support.industry.siemens.com/cs/ww/en/view/11647144 FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/16356/faq
https://support.industry.siemens.com/cs/ww/en/view/116471	44	пас, все пареливаррованновой, активновой учествой учествой пособласт
Туре		3RP2005, 3RP2025
Dimensions (W x H x D)	mm	45 x 57 x 73
Rated insulation voltage Pollution degree 3 Overvoltage category III	V AC	300
Permissible ambient temperature • During operation • During storage	°C °C	-25 +60 -40 +85
Operating range of excitation ¹⁾		0.85 1.1 x $U_{\rm S}$ at AC; 0.8 1.25 x $U_{\rm S}$ at DC; 0.95 1.05 times the rated frequency
Mechanical endurance	Operating cycles	10 x 10 ⁶
Electrical endurance at I_{\ominus}	Operating cycles	1 x 10 ⁵
Connection type		Screw terminals
Terminal screw Solid Finely stranded with end sleeve Stranded AWG cables Tightening torque	mm ² mm ² AWG AWG Nm	M3 (for standard screwdriver, size 2 and Pozidriv 2) 2 x (0.5 1.5) ²), 2 x (0.75 2.5) ²) 2 x (0.5 1.5) ²), 2 x (0.75 2.5) ²) 2 x (0.5 1.5) ²), 2 x (0.75 2.5) ²) 2 x (0.5 1.5) ²), 2 x (0.75 2.5) ²) 2 x (18 14) 0.8 1.2
Connection type		Spring-type terminals
Solid Finely stranded with end sleeve Finely stranded without end sleeve AWG cables, solid or stranded Max. external diameter of the conductor insulation	mm ² mm ² mm ² AWG mm	2 x (0.25 2.5) 2 x (0.25 1.5) 2 x (0.25 2.5) 2 x (24 14) 3.6

¹⁾ If nothing else is stated.

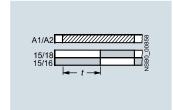
²⁾ If two different conductor cross-sections are connected to one clamping point, both cross-sections must lie in one of the ranges specified.

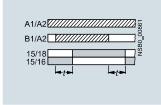
Timing Relays

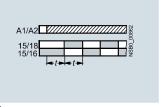
SIRIUS 3RP20 timing relays, 45 mm

3RP20 function diagrams and 3RP2901 label set

1 CO contact

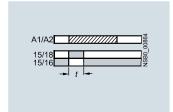


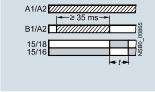


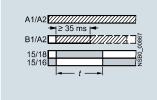


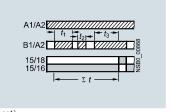
3RP2005-.A, 3RP2025 ON-delay **B**1) 3RP2005-.A OFF-delay with control signal $\mathbf{C}^{1)}$ 3RP2005-.A ON and OFF-delay with control signal ($t=t_{\mathrm{on}}=t_{\mathrm{off}}$)

D 3RP2005-.A Flashing, starting with interval (pulse/interval 1:1)









3RP2005-.A Passing make contact F1)
3RP2005-.A
Passing break contact with control signal

G1)
3RP2005-.A
Pulse-forming with control signal
(pulse generation at the output does not depend on duration of energizing)

H1)
3RP2005-.A
Additive ON-delay with control signal

Legend

A ... H Identification letters for 3RP2005

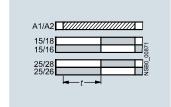
Contact closed

Contact open

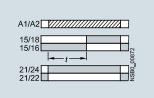
1) Note on function with start contact: A new control signal at terminal B, after the operating time has started, resets the operating time to zero (retriggerable). This does not apply to G, G● and H●, which are not retriggerable.

SIRIUS 3RP20 timing relays, 45 mm

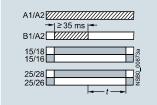
2 CO contacts



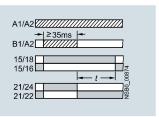
A 3RP2005-.B ON-de**l**ay



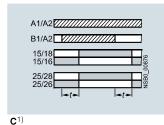
A• 3RP2005-.B ON-delay and instantaneous contact



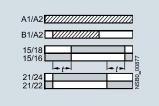
B1)
3RP2005-.B
OFF-delay with control signal



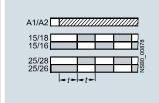
B•1)
3RP2005-.B
OFF-delay with control signal and instantaneous contact



3RP2005-.B ON and OFF-delay with control signal ($t = t_{\rm on} = t_{\rm off}$)

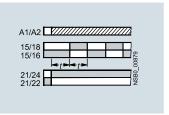


 $\mathbf{C} \bullet ^{1)}$ 3RP2005-.B ON and OFF-delay with control signal and instantaneous contact $(t=t_{\mathrm{on}}=t_{\mathrm{off}})$

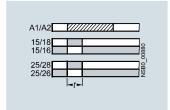


3RP2005-.B Flashing, starting with interval (pulse/interval 1:1)

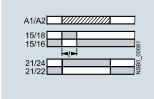
D



De 3RP2005-.B Flashing, starting with interval (pulse/interval 1:1) and instantaneous contact



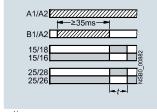
E3RP2005-.B
Passing make contact



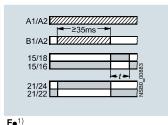
E●

3RP2005-.B

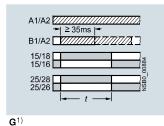
Passing make contact and instantaneous contact



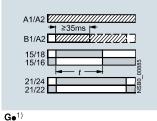
F1)
3RP2005-.B
Passing break contact with control signal



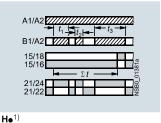
3RP2005-.B Passing break contact with control signal and instantaneous contact



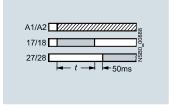
3RP2005-.B Pulse-forming with control signal (pulse generation at the output does not depend on duration of energizing)



3RP2005-.B Pulse-forming with control signal and instantaneous contact (pulse generation at the output does not depend on duration of energizing)



3RP2005-.B Additive ON-delay with control signal and instantaneous contact



3RP2005-.B Wye-delta function

Legend

A ... H Identification letters for 3RP2005

Contact closed

☐ Contact open

¹⁾ Note on function with start contact: A new control signal at terminal B, after the operating time has started, resets the operating time to zero (retriggerable). This does not apply to G, G• and H•, which are not retriggerable.

Timing Relays

SIRIUS 3RP20 timing relays, 45 mm

Selection and ordering data

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









3RP2005-1AP30

3RP2005-1BW30

3RP2005-2AP30

3RP2025-2BW30

	011	1 2000-10 100	3111 2003	2711 00	0111 21	020 201100			
Version	Time setting range <i>t</i>	Rated control sup	ply voltage <i>U</i> s	SD	Screw terminals	(1)	SD	Spring-type terminals	
		V	V	d	Article No.	Price per PU	d	Article No.	Price per PU
3RP2005 timing	relays, multifuı	nction, 15 time se	etting ranges						
The functions can be be used to adjust did unmistakably. The contract the same potential refer functions, see 3F	ferent functions of orresponding labe must be applied to	f the 3RP2505 timing Is can be ordered a terminals A. and B.	relay clearly and san accessory.						
With LED and 1 CO contact ¹⁾ , 8 functions	0.05 1 s 0.15 3 s 0.5 10 s	24/100 127 24/200 240	24 24	A	3RP2005-1AQ30 3RP2005-1AP30		2	3RP2005-2AQ30 3RP2005-2AP30	
With LED and 2 CO contacts, 16 functions	- 1.5 30 s 0.05 1 min 5 100 s 0.15 3 min 0.5 10 min 1.5 30 min 0.05 1 h 5 100 min 0.15 3 h 0.5 10 h 1.5 30 h 5 100 h ∞ 2)	24 240 ³⁾	24 240 ⁴⁾	•	3RP2005-1BW30		2	3RP2005-2BW30	
3RP2025, timing			ig ranges						
With LED and 1 CO contact ¹⁾	0.05 1 s 0.15 3 s 0.5 10 s 1.5 30 s 0.05 1 min 5 100 s 0.15 3 min 0.5 10 min 1.5 30 min 0.05 1 h 5 100 min 0.15 3 h 0.5 10 h 1.5 30 h 5 100 h	24/100 127 24/200 240	24 24	*	3RP2025-1AQ30 3RP2025-1AP30		A A	3RP2025-2AQ30 3RP2025-2AP30	

For accessories, see page 10/55.

- 1) Units with protective separation.
- 2) With

 switch position no timing. For test purposes (ON/OFF function) on site. Relay is constantly on when activated, or relay remains constantly off when activated. Depending on which function is set.
- $^{3)}$ Operating range 0.8 to 1.1 x $U_{\rm S}.$
- ⁴⁾ Operating range 0.7 to 1.1 x $U_{\rm S}$.

SIRIUS 3RP20 timing relays, 45 mm

$\Lambda \sim c$	` 000/	NILOS
700	cesso	ハロマミ

	Version	Function	Identifi- cation letter	· Use	SD	Article No.	Price per PU	PU (UN I T, SET, M)	PS*	PG
Label sets for 3R	Pon				d					
Lauer SetS für 3n	Accessorie The label s	es for 3RP20 (not included in the sco et can be used to label timing relay: English and German.				l				
the same of the sa		ON-delay	А	For	10	3RP2901-0A		1	5 units	41H
Reference Carrie	(1 unit) with 8	 OFF-delay with control signal 	В	devices with 1 CO						
AND THE PARTY OF T	functions	 ON-delay and OFF-delay with control signal 	С	with 1 CO						
Enn der		 Flashing, starting with interval 	D							
A.J.		Passing make contact	E							
The State of the S		 Passing break contact with control signal 	F							
3RP2901-0A		• Pulse-forming with control signal	G							
		 Additive ON-delay with control signal 	Н							
A Property of the Parket	1 label set (1 unit) with 16	ON-delay	Α	For	10	3RP2901-0B		1	5 units	41H
At the local land of the land		 OFF-delay with control signal 	В	devices with 2 CO						
A first the second seco	functions	 ON-delay and OFF-delay with control signal 	С	WILL 200						
Marine Street		 Flashing, starting with interval 	D							
CALL TO CALL THE		 Passing make contact 	Е							
Total State of the		 Passing break contact with control signal 	F							
Control of the last of the las		 Pulse-forming with control signal 	G							
MAIN SON MAIN SON		 ON-delay and instantaneous contact 	A•							
See the figure of the first of		 OFF-delay with control signal and instantaneous contact 	В∙							
3RP2901-0B		ON-delay and OFF-delay with control signal and instantaneous contact	C•							
3 2001 00		 Flashing, starting with interval, and instantaneous contact 	D•							
		 Passing make contact and instantaneous contact 	E∙							

Blank inscription labels for 3RP20

Blank inscription labels, 20 mm x 7 mm, pastel turquoise¹⁾

contact

Passing break contact with control signal and instantaneous

 Pulse-forming with control signal G• and instantaneous contact • Additive ON-delay with control H• signal and instantaneous contact • Wye-delta function

 $\mathbf{Y}\Delta$

For 3RP20 20 3RT1900-1SB20 100 340 units

41B

 PC labeling system for individual inscription of unit labeling plates available from: Conta-Clip Verbindungstechnik GmbH, see page 16/15.

Timing Relays

7PV15 timing relays, 17.5 mm

Overview



7PV15 timing relay

Electronic timing relays for general use and in control systems, mechanical engineering and infrastructure with:

- 1 or 2 CO contacts
- Multifunction or monofunction
- Wide voltage range or combination voltage
- Single or selectable time setting ranges
- · Switch position indication and voltage indication by LED

Standards

The timing relays comply with:

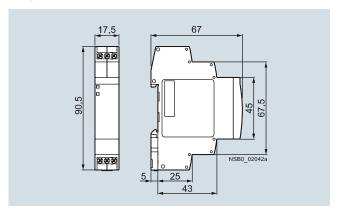
- IEC 60721-3-3 "Classification of environmental conditions"
- IEC 61812-1 "Specified time relays for industrial use"
- IEC 61000-6-2 and EN 61000-6-4 "Electromagnetic compatibility"
- IEC 60947-5-1 "Low-voltage switchgear and controlgear Electromechanical control circuit devices"
- DIN 43880 "Built-in equipment for electrical installations; overall dimensions and related mounting dimensions"

Multifunction

The functions of the 7PV1508-1A multifunctional timing relay can be set by means of rotary switches. The identification letters A to G are printed on the front alongside the rotary selector switch of the unit. The related function can be found in the form of a bar graph on the side of the device.

Enclosure version

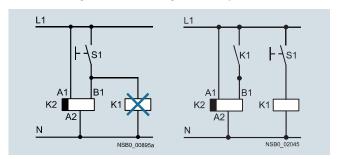
All timing relays are suitable for snap-on mounting onto TH 35 standard mounting rails according to IEC 60715. The enclosure complies with DIN 43880, 1 MW.



Dimensions

Note:

The activation of loads parallel to the start input is not permissible when using AC control voltage (see diagrams).



Diagrams

7PV15 timing relays, 17.5 mm

Article No. scheme

Product versions	Article number	Article number						
Timing relays in indus	7PV15 □ □ - 1 [3 0					
Product function/	Multifunction	0 8		7 time ranges 0.05 s 100 h				
time setting ranges	ON-delay	1 1		1 time range 0.05 1 s				
		1 2		1 time range 0.5 10 s				
		1 3		1 time range 5 100 s				
		1 8		7 time ranges 0.05 s 100 h				
	OFF-delay with control signal	3 8		7 time ranges 0.05 s 100 h				
	OFF-delay without control signal	4 0		7 time ranges 0.05 s 100 s				
	Clock-pulse relay	5 8		7 time ranges 0.05 s 100 h				
	Wye-delta function	7 8		7 time ranges 0.05 s 100 h				
Contacts	e.g. A = 1 CO contact							
Control supply voltage	e.g. W = 12 240 V AC/DC			Combination voltage				

Example

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

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

Benefits

- Wide voltage range 12 to 240 V AC/DC
- High switching capacity, e.g. AC-15 at 230 V, 3 A
- Combination voltage, e.g. 24 V AC/DC and 200 to 240 V AC
- Changes to the time setting range during operation
- Changes to the function in the de-energized state
- High level of functionality and a high repeat accuracy of timer settings
- Integrated surge suppressor

7PV15 0 8 - 1 A W 3 0

 Function charts printed on the side of the device for reliable device adjustment

Application

Timing relays are used in control, starting, and protective circuits for all switching operations involving time delays,

e.g. in functional buildings, airports, building industry, etc.

Technical specifications

More information		
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/1635	8/td	Operating instructions and internal circuit diagrams, see https://support.industry.siemens.com/cs/ww/en/view/35210295
Туре		7PV15
Rated insulation voltage Pollution degree 2, overvoltage category III	V AC	300
Permissible ambient temperature • During operation • During storage	°C °C	-25 +55 -40 +70
Operating range of excitation ¹⁾		0.85 1.1 x $U_{\rm S}$ at V AC/DC, 50/60 Hz 0.8 1.25 x $U_{\rm S}$ at 24 V DC; 0.95 1.05 times the rated frequency
Rated operational current I _e • AC-15 at 24 240 V, 50 Hz • DC-13 at	А	3
- 24 V - 125 V	A A	1 0.2
Uninterrupted thermal current I _{th}	А	5
Mechanical endurance	Operating cycles	1 x 10 ⁷
Electrical endurance at I_{Θ}	Operating cycles	1 x 10 ⁵
Connection type		Screw terminals
Terminal screw Solid Finely stranded with end sleeve Finely stranded without end sleeve AWG cables, solid or stranded Tightening torque	mm² mm² mm² AWG Nm	M3 (for standard screwdriver, size 2 and Pozidriv 2) 1 x (0.2 2.5) 1 x (0.25 1.5) 1 x (0.2 1.5) 1 x (2.4 1.4) 0.4 0.5

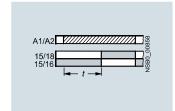
¹⁾ If nothing else is stated.

Timing Relays

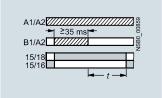
7PV15 timing relays, 17.5 mm

7PV15 function diagrams

1 CO contact

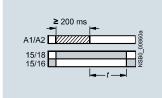


7PV1508-1A, 7PV1511, 7PV1512, 7PV1513, 7PV1518 ON-delay



B¹⁾ 7PV1508-1A, 7PV1538

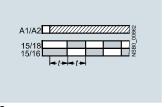
OFF-delay with control signal



7PV1540

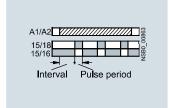
E1)

OFF-delay without control signal

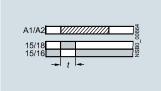


C 7PV1508-1A

Flashing, starting with interval (pulse/interval 1:1)

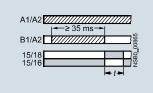


7PV1558 Clock-pulse, starting with interval (dead period, pulse time, and time setting ranges each separately adjustable)

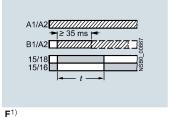


7PV1508-1A Passing make contact

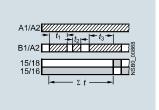
D



7PV1508-1A Passing break contact with control signal



. TPV1508-1A Pulse-forming with control signal (pulse generation at the output does not depend on duration of energizing)



 $G^{1)}$

7PV1508-1A Additive ON-delay with control signal

Legend

A ... G Identification letters for 7PV1508

ZZZ Timing relay energized

Contact closed

Contact open

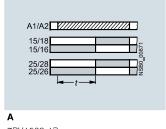
1) Note on function with start contact: A new control signal at terminal B, after the operating time has started, resets the operating time to zero (retriggerable). This does not apply to E, F and G, which are not retriggerable.

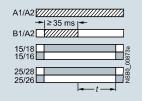
Note:

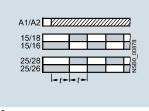
With the 7PV1508-1A multifunctional timing relay the identification letters A to G are printed on the front alongside the rotary selector switch of the unit. The related function can be found in the form of a bar graph on the side of the device.

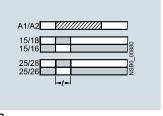
7PV15 timing relays, 17.5 mm

2 CO contacts

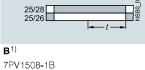








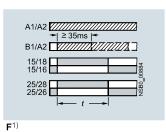
7PV1508-1B ON-delay

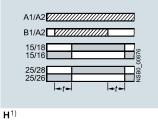


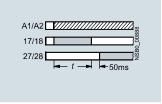
OFF-delay with control signal

С 7PV1508-1B Flashing, starting with interval (pulse/interval 1:1)





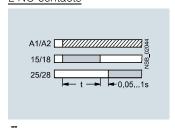




7PV1508-1B Pulse-forming with control signal (pulse generation at the output does 7PV1508-1B ON-delay and OFF-delay with control Fixed pulse after ON-delay

7PV1508-1B

2 NO contacts



not depend on duration of energizing)

7PV1578 Wye-delta function²⁾

Legend

A ... D, F, H, I Identification letters for 7PV1508

ZZZ Timing relay energized

Contact closed

Contact open

- 1) Note on function with start contact: A new control signal at terminal B, after the operating time has started, resets the operating time to zero (retrigger-able). This does not apply to E, F and G, which are not retriggerable.
- 2) With 7PV1578 the contacts 16 and 26 are not needed for the wye-delta function.

Note:

With the 7PV1508-1B multifunctional timing relay the identification letters A to D, F, H, I are printed on the front alongside the rotary selector switch of the unit. The related function can be found in the form of a bar graph on the side of the device.

7PV15 timing relays, 17.5 mm

Selection and ord	ering data								
7PV1508-1AW30	a .	(1518-1AW30 7PV	1538-1AW30	7.P	V1540-1AW30	7PV1558-1A		G G 7PV1578-1	3W30
Version	Time setting range			SD	Screw terminals		PU	PS*	PG
	adjustable by rota switch to	ry $U_{\mathbb{S}}$					(UNIT, SET, M)		
		50/60 Hz AC V	DC V	d	Article No.	Price per PU			
7PV1508 timing re	lays, multifunction, 7 ti	me setting ranges							
	adjusted by means of rotary	•				d B.			
With LED and 1 CO contact, 7 functions	0.05 1 s 0.5 10 s 5 100 s	12 240	12 240	•	7PV1508-1AW30		1	1 unit	41H
With LED and 2 CO contacts,	30 s 10 min 3 min 1 h 30 min 10 h	12 240	12 240	>	7PV1508-1BW30		1	1 unit	41H
7 functions	5 100 h								
	ays, ON-delay, 1 time s		0.4	Ļ	7014544 44 000			4 9	4411
With LED and 1 CO contact	0.05 1 s 0.5 10 s	24/200 240 24/100 127	24	<u> </u>	7PV1511-1AP30 7PV1512-1AQ30		1	1 unit 1 unit	41H 41H
	5 100 s	24/200 240	24	<u> </u>	7PV1512-1AQ30 7PV1512-1AP30 7PV1513-1AQ30		1	1 unit	41H 41H
	3 100 8	24/200 240	24	•	7PV1513-1AQ30		1	1 unit	41H
	lays, ON-delay, 7 time s	- J							
With LED and 1 CO contact	0.05 1 s 0.5 10 s	12 240	12 240	•	7PV1518-1AW30		1	1 unit	41H
1 00 00111401	5 100 s	90 127	90 127 180 240	>	7PV1518-1AJ30		1 1	1 unit	41H
	30 s 10 min 3 min 1 h 30 min 10 h 5 100 h	180 240	180 240		7PV1518-1AN30		l	1 unit	41H
7PV1538 timing re	lays, OFF-delay, with c	ontrol signal, 7 time	setting rang	ges					-
With LED and 1 CO contact	0.05 1 s 0.5 10 s 5 100 s 30 s 10 min 3 min 1 h 30 min 10 h 5 100 h	12 240	12 240	•	7PV1538-1AW30		1	1 unit	41H
	lays, OFF-delay, withoເ	ıt control signal, 7 ti	me setting ra	anges					
With LED and 1 CO contact	0.05 1 s 0.15 3s 0.3 6 s 0.5 10 s 1.5 30 s 3 60 s 5 100 s	12 240	12 240	•	7PV1540-1AW30		1	1 unit	41H
	lays, clock-pulse relay,								
With LED and 1 CO contact	0.05 1 s 0.5 10 s 5 100 s 30 s 10 min 3 min 1 h 30 min 10 h 5 100 h	12 240	12 240	•	7PV1558-1AW30		1	1 unit	41H
	lays, wye-delta function		-		7014576 40116			4 0	4 4 1 1
With LED and 2 NO contacts, dead interval 0.05 1 s adjustable	0.05 1 s 0.5 10 s 5 100 s 30 s 10 min 3 min 1 h 30 min 10 h 5 100 h	12 240	12 240	•	7PV1578-1BW30		1	1 unit	41H

SIRIUS 3RT19 timing relays for mounting onto 3RT1 contactors

Overview



SIRIUS 3RT19 timing relay

SIRIUS 3RT19 electronic timing relays for mounting onto contactors with:

- 1 NO and 1 NC or 2 NO
- Monofunction
- Monovoltage
- Single or selectable time setting ranges

Simply by being plugged in place, the SIRIUS 3RT19 timing relays enable different functionalities required for the assembly of starters to be realized in the feeder. At the same time the timing relays for mounting onto contactors reduce the wiring work required within the feeder and save space in the control cabinet.

A protection circuit (varistor) is integrated in each module.

The electronic timing relay with semiconductor output uses two plug-in contacts to actuate the contactor underneath by means of a semiconductor after the set time has elapsed.

The time-delay auxiliary switch is supplied with power directly by two plug-in contacts through the coil terminals of the contactor, in parallel with A1/A2.

The switching state feedback is performed by a mechanical switching state indicator (plunger).

Article No. scheme

Product versions		Article number				
Time module and	contactor control unit	3RT19 □ □ - 2 □ □ □ 1				
Size	e.g. 26 = S6 to S12					
Version	e.g. E = ON-delay					
Control supply volta	age e.g. J = 24 V AC/DC					
Time range	e.g. 1 = 0.05 1 s					
Example		3RT19 2 6 - 2 E J 1 1				

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

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

Timing Relays

SIRIUS 3RT19 timing relays for mounting onto 3RT1 contactors

Technical specifications

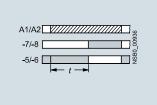
More information Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16361/faq https://support.industry.siemens.com/cs/ww/en/ps/16361/faq https://support.industry.siemens.com/cs/ww/en/ps/16361/man FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/16361/faq https://support.industry.siemens.com/cs/

According to IEC 61812-1/DIN VDE 0435-2021

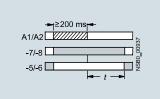
Туре		Electronic timing relay blocks with semiconductor output	Solid-state time-delay auxiliary switch blocks
		3RT19.6-2C, 3RT19.6-2D	3RT19.6-2E, 3RT19.6-2F, 3RT19.6-2G
Rated insulation voltage <i>U</i> _i Pollution degree 3 Overvoltage category III acc. to VDE 0110	V AC	300	
Permissible ambient temperature • During operation • During storage	°C °C	-25 +60 -40 +80	
Operating range of excitation		0.8 1.1 x $U_{\rm S}$, 0.95 1.05 times the rated frequency	0.85 1.1 x $U_{\rm S}$, 0.95 1.05 times the rated frequency
Rated operational currents $I_{\rm e}$			
 Load current AC-15, 24 400 V, 50 Hz DC-13, 24 V DC-13, 125 V DC-13, 250 V 	A A A A	0.3 for 3RT1916; 0.5 for 3RT1926 	 3 1 0.2 0.1
Mechanical endurance	Oper- ating cycles	100 x 10 ⁶	10 x 10 ⁶
Electrical endurance at $I_{ m e}$	Oper- ating cycles	100 x 10 ⁶	1 x 10 ⁵
Connection type		Screw terminals	
 Terminal screw Solid Finely stranded with end sleeve AWG cables, solid or stranded Tightening torque 	mm ² mm ² AWG Nm	M3 (for standard screwdriver, size 2 and Pozidriv 2) 1 x (0.5 4)/2 x (0.5 2.5) 1 x (0.5 2.5)/2 x (0.5 1.5) 2 x (20 14) 0.8 1.2	

3RT1926 function diagrams

1 NO contact + 1 NC contact



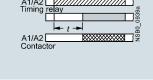




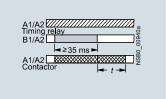
3RT1926-2F OFF-delay without control signal

A1/A2 \[\frac{1}{2}\]

1 NO contact (semiconductor)

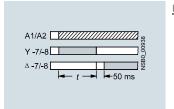


3RT1926-2C ON-delay two-wire design (varistor integrated)



3RT1926-2D OFF-delay with control signal (varistor integrated)

2 NO contacts



3RT1926-2G Wye-delta function 1 NO delayed, 1 NO instantaneous, dead time 50 ms (varistor integrated)

Legend

- Contact closed
- Contact open

SIRIUS 3RT19 timing relays for mounting onto 3RT1 contactors

Selection and	ordering da	ta								
	For contactors	Version	Time setting range t	Rated control supply voltage $U_{\rm s}$	SD	Screw terminals	(1)	PU (UNIT,	PS*	PG
	Type		S	٧	d	Article No.	Price per PU	SET, M)		
For sizes S6 to							po o			
	3RT10,	Terminal designa	tions acc. to E	N 46199-5						
	3RT14	ON-delay								
000		1 NO + 1 NC	0.05 1 0.5 10 5 100	24 AC/DC	10 • 2	3RT1926-2EJ11 3RT1926-2EJ21 3RT1926-2EJ31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
0 6 6			0.05 1 0.5 10 5 100	100 127 AC	15 • 10	3RT1926-2EC11 3RT1926-2EC21 3RT1926-2EC31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
3RT1926-2			0.05 1 0.5 10 5 100	200 240 AC	5 • 5	3RT1926-2ED11 3RT1926-2ED21 3RT1926-2ED31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
		OFF-delay witho	ut contro l signal	2)						
		1 NO + 1 NC	0.05 1 0.5 10 5 100	24 AC/DC	* *	3RT1926-2FJ11 3RT1926-2FJ21 3RT1926-2FJ31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
			0.05 1 0.5 10 5 100	100 127 AC	5 • 5	3RT1926-2FK11 3RT1926-2FK21 3RT1926-2FK31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
			0.05 1 0.5 10 5 100	200 240 AC	5 2 2	3RT1926-2FL11 3RT1926-2FL21 3RT1926-2FL31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
		Wye-delta functi	on (varistor inte	grated)						
		1 NO delayed + 1 NO instanta- neous, dead time 50 ms	1.5 30	24 AC/DC 100 127 AC 200 240 AC	* *	3RT1926-2GJ51 3RT1926-2GC51 3RT1926-2GD51		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
For sizes S0 to		miconductor out	put							
	3RT20 ²⁾	the corresponding	nection betweer contactor is es g pins of the tim	the relay block and tablished by screwing ing relay block to coil						
		ON-delay, two-v	vire design (var	stor integrated)						
Situation &			0.05 1 0.5 10 5 100	24 66 AC/DC	5 5 5	3RT1926-2CG11 3RT1926-2CG21 3RT1926-2CG31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
3RT1926-2C			0.05 1 0.5 10 5 100	90 240 AC/DC	* * *	3RT1926-2CH11 3RT1926-2CH21 3RT1926-2CH31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
		 OFF-delay with 	• .	aristor integrated)						
8 8 8			0.05 1 0.5 10 5 100	24 66 AC/DC	10 5 20	3RT1926-2DG11 3RT1926-2DG21 3RT1926-2DG31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
3RT1926-2D			0.05 1 0.5 10 5 100	90 240 AC/DC	5 5 10	3RT1926-2DH11 3RT1926-2DH21 3RT1926-2DH31		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H

¹⁾ The terminals A1 and A2 for the rated control supply voltage of the solid-state time-delay auxiliary switch block must be connected to the corresponding contactor by connecting cables.

²⁾ Not for 3RT104 contactor with 24 to 42 V rated control supply voltage.