



Description	Ordering Information
Solid-state timing relays with 1 SPDT contact, eight switchable time ranges, contact state indication by LED, voltage indication by LED.	<ul style="list-style-type: none"> <li>▶ General Information see page 585.</li> <li>▶ Technical Data see page 595.</li> <li>▶ Dimensions see page 599.</li> </ul>

### Compact Timing Relays

Illustration	Version	Function Time Relay Energized Contact Closed Contact Open	Time Setting Range <i>t</i> Selectable by selector switch to	Rated control supply voltage		Catalog No	Price \$
				AC 50/60Hz <sup>①</sup> V	DC <sup>②</sup> V		
 3RP1000-2AP30	<b>3RP1000, multi-function time relay, 8 time ranges</b>						
	with LED 1 SPDT contact, 7 functions The terminals A1 and B1 must be of equal potential.	The time relay <b>3RP1000</b> can be set for different functions by means of coding plugs. The required coding plugs are supplied with the relay. For functions, see coding plugs <b>7PX9904</b>	0.05–1 s 0.5–10 s 0.05–1 min 5–100 s 0.5–10 min 0.05–1 h 5–100 min 0.5–10 h	24/100–127  24/200–240	24  24	3RP1000-1AQ30 3RP1000-2AQ30 <sup>③</sup>  3RP1000-1AP30 3RP1000-2AP30 <sup>③</sup>	110.00 115.00  110.00 115.00
 3RP1020-1AP30	<b>3RP1020, on-delay, 8 time setting ranges</b>						
	with LED 1 SPDT contact	on-delay 	0.05–1 s 0.5–10 s 0.05–1 min 5–100 s 0.5–10 min 0.05–1 h 5–100 min 0.5–10 h	24/100–127  24/200–240	24  24	3RP1020-1AQ30 3RP1020-2AQ30 <sup>③</sup>  3RP1020-1AP30 3RP1020-2AP30 <sup>③</sup>	60.00 65.00  60.00 65.00

### Coding plugs

Illustration	Version	Function	Application	Catalog No	Price \$
 7PX9904	Complete set with 7 functions	on-delay off-delay with auxiliary voltage on- and off-delay with auxiliary voltage flashing rising edge pulse falling edge pulse with auxiliary voltage pulse forming with auxiliary voltage	for relays with 1 SPDT	7PX9904	34.50

### Function table for coding plugs 7PX9904 (1 SPDT contact)

Function	Timing Diagram	Application	Timing Diagram
time relay energized contact closed contact open flashing, starting with interval (pulse/interval 1:1)		flashing, starting with interval (pulse/interval 1:1)	
on-delay		rising edge pulse	
off-delay with auxiliary voltage		falling edge pulse with auxiliary voltage	
on- and off-delay with auxiliary voltage ( $t = t_{ON} = t_{OFF}$ )		pulse forming with auxiliary voltage (pulse generation at the output does not depend on duration of energizing)	

①Coil voltage tolerance  $0.85$  to  $1.1 \times U_N$ .  
 ②Coil voltage tolerance  $0.8$  to  $1.25 \times U_N$ .  
 ③Version with Cage Clamp connection.








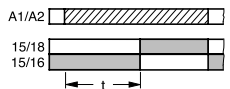


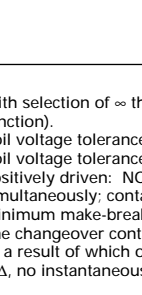
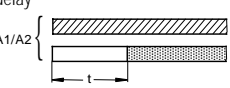
# 3RP1 Timing Relays

Selection

## Narrow Profile Timing Relays/Screw Connection

Description	Ordering Information
Solid-state timing relays with, 1 SPDT contact or 2 SPDT, single or switchable time ranges, contact state indication by LED, voltage indication by LED.	<ul style="list-style-type: none"> <li>▶ General Information see page 585.</li> <li>▶ Technical Data see page 595.</li> <li>▶ Dimensions see page 599.</li> </ul>

### Narrow profile timing relays

Illustration	Version Contact Open	Function  Time Relay Energized  Contact Closed  Contact Open	Time Setting Range <i>t</i> Selectable	Rated Control Supply Voltage		Screw Terminals Catalog No	Price \$	Cage Clamp Terminals Catalog No	Price \$						
				AC 50/60Hz Volts	DC Volts										
<b>3RP1505, multi-function timing relay, 15 time setting ranges</b>															
	with LED	The functions are selected by means of a knob. The knob is sealed by a label with a corresponding function diagram. See label set <b>3RP1901</b> .	0.05–1 s	24/100–127	24	<b>3RP1505-1AQ30</b>	95.	<b>3RP1505-2AQ30</b>	100.						
	1 SPDT contact, 8 functions		0.5–3 s							24/200–240	24	<b>3RP1505-1AP30</b>	95.	<b>3RP1505-2AP30</b>	100.
			0.5–10 s							24-240 <sup>③</sup>	24-240 <sup>②</sup>	<b>3RP1505-1AW30</b>	95.	<b>3RP1505-2AW30</b>	100.
	with LED	Terminals A and B must be of equal potential	1.5–30 s	24/100–127	24	<b>3RP1505-1BQ30</b>	110.	<b>3RP1505-2BQ30</b>	115.						
2 SPDT contacts, 16 functions	5–100 s		24/200–240							24	<b>3RP1505-1BP30</b>	110.	<b>3RP1505-2BP30</b>	115.	
	0.15–3 min		24-240 <sup>③</sup>							24-240 <sup>②</sup>	<b>3RP1505-1BW30</b>	135.	<b>3RP1505-2BW30</b>	140.	
	with LED	2 SPDT contacts positively driven <sup>④</sup> , gold plated, 8 functions <sup>⑤</sup>	0.5–10 h	400-440	—	<b>3RP1505-1BT20</b>	135.	<b>3RP1505-2BT20</b>	140.						
	1.5–30 min		24-240							24-240	<b>3RP1505-1RW30</b>	135.	<b>3RP1505-2RW30</b>	140.	
	∞ <sup>①</sup>														
<b>3RP151., on-delay, 1 time setting range</b>															
	with LED	on-delay 	0.5–10 s	24/100–127	24	<b>3RP1511-1AQ30</b>	50.	<b>3RP1511-2AQ30</b>	55.						
	1 SPDT contact		1.5–30 s	24/200–240	24	<b>3RP1512-1AQ30</b>	50.	<b>3RP1512-2AQ30</b>	55.						
			5–100 s	24/100–127	24	<b>3RP1513-1AQ30</b>	50.	<b>3RP1513-2AQ30</b>	55.						
				24/200–240	24	<b>3RP1513-1AP30</b>	50.	<b>3RP1513-2AP30</b>	55.						
<b>3RP1525, on-delay, 15 time setting ranges</b>															
	with LED	on-delay 	0.15–1 s	24/100–127	24	<b>3RP1525-1AQ30</b>	65.	<b>3RP1525-2AQ30</b>	70.						
	1 SPDT contact		0.15–3 s							24/200–240	24	<b>3RP1525-1AP30</b>	65.	<b>3RP1525-2AP30</b>	70.
			0.5–10 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												
			1–100 h												
			∞ <sup>①</sup>												
<b>3RP1527, on-delay, two-wire version, 4 time setting ranges</b>															
	with LED	on-delay 	0.05–1 s	24–66	24–66 <sup>②</sup>	<b>3RP1527-1EC30</b>	50.	<b>3RP1527-2EC30</b>	55.						
			0.2–4 s	90–240	90–240 <sup>③</sup>	<b>3RP1527-1EM30</b>	50.	<b>3RP1527-2EM30</b>	55.						
			1.5–30 s												
			12–240 s												

①With selection of ∞ there is no timing (ON/OFF function).

②Coil voltage tolerance 0.70 to 1.1 × U<sub>S</sub>.

③Coil voltage tolerance 0.8 to 1.1 × U<sub>S</sub>.

④Positively driven: NO and NC are never closed simultaneously; contact gap ≥ 0.5mm is guaranteed, minimum make-break capacity 12V, 3mA.

⑤The changeover contacts are activated simultaneously as a result of which only 8 functions are selectable (no Y Δ, no instantaneous contact).

10

Logic Control

588



# 3RP1 Timing Relays

Selection

## Narrow Profile Timing Relays/Screw Connection

Description	Ordering Information
Solid-state timing relays with 1 SPDT contact or 2 SPDT, contact state indication by LED, single or switchable time ranges, voltage indication by LED.	<ul style="list-style-type: none"> <li>▶ General Information see page 585.</li> <li>▶ Technical Data see page 595.</li> <li>▶ Dimensions see page 599.</li> </ul>

### Narrow profile timing relays

Illustration	Version	Function Time Relay Energized Contact Closed Contact Open	Time Setting Range <i>t</i> Selectable	Rated Control Supply Voltage		Screw Terminals Catalog No	Price \$	Cage Clamp Terminals Catalog No.	Price \$
				AC 50/60Hz Volts	DC Volts				
<b>3RP153, off-delay, with auxiliary voltage, 1 time setting range</b>									
	with LED	off-delay, with auxiliary voltage							
	1 SPDT contact common terminal 17	A1/A2	0.5–10 s	24/100–127 24/200–240	24 24	3RP1531-1AQ30 3RP1531-1AP30	85. 85.	3RP1531-2AQ30 3RP1531-2AP30	90. 90.
		B1/A2	1.5–30 s	24/100–127 24/200–240	24 24	3RP1532-1AQ30 3RP1532-1AP30	85. 85.	3RP1532-2AQ30 3RP1532-2AP30	90. 90.
15/18 15/16		5–100 s	24/100–127 24/200–240	24 24	3RP1533-1AQ30 3RP1533-1AP30	85. 85.	3RP1533-2AQ30 3RP1533-2AP30	90. 90.	
<b>3RP1540, off-delay, without auxiliary voltage, 7 time setting ranges</b>									
	with LED	off-delay, without auxiliary voltage							
	1 SPDT contact	A1/A2	0.05–1 s	24	24 <sup>②</sup>	3RP1540-1AB30	110.	3RP1540-2AB30	115.
		15/18 15/16	0.15–3 s	100–127 24–240	100–127 <sup>③</sup> 200–240 <sup>③</sup>	3RP1540-1AJ30 3RP1540-1AN30	110. 110.	3RP1540-2AJ30 3RP1540-2AN30	115. 115.
		0.3–6 s							
2 SPDT contacts	A1/A2	0.5–10 s	24	24 <sup>②</sup>	3RP1540-1BB30	125.	3RP1540-2BB30	130.	
	15/18 15/16	1.5–30 s	100–127 24–240	100–127 <sup>③</sup> 200–240 <sup>③</sup>	3RP1540-1BJ30 3RP1540-1BN30	125. 125.	3RP1540-2BJ30 3RP1540-2BN30	130. 130.	
	25/28 25/26	3–60 s 5–100 s							
<b>3RP1555, clock-pulse relay, 15 time setting ranges</b>									
	with LED	pulse contact, start with interval							
1 SPDT contact	A1/A2	Interval	0.05–1 s 0.15–3 s 0.5–10 s 1.5–30 s	42–48, 60 24/100–127 24/200–240	42–48, 60 <sup>④</sup> 24 24	3RP1555-1AR30 3RP1555-1AQ30 3RP1555-1AP30	120. 120. 120.	3RP1555-2AR30 3RP1555-2AQ30 3RP1555-2AP30	125. 125. 125.
15/18 15/16	Pulse		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 1–100 h ∞ <sup>④</sup>						
3RP1555-1AP30		(Interval time, pulse time and time ranges separately adjustable)							
<b>3RP1560, wye-delta function, time relay over travel</b>									
	3 NO contacts	A1/A2	wye-delta	24/100–127	24	3RP1560-1SQ30	85.	3RP1560-2SQ30	90.
	common terminal 17	B1/A2 17/18 17/28 17/16	1–20 s over travel time 30–600 s	24/100–127 24/200–240	24 24	3RP1560-1SP30	85.	—	—
<b>3RP157, wye-delta function, instantaneous interval 50 ms, 1 time setting range</b>									
	1 NO delayed and 1 NO instantaneous	A1/A2	wye-delta	24/100–127 24/200–240	24 24	3RP1574-1NQ30 3RP1574-1NP30	65. 65.	3RP1574-2NQ30 3RP1574-2NP30	70. 70.
		17/18 27/28	1–20 s 3–60 s	24/100–127 24/200–240	24 24	3RP1576-1NQ30 3RP1576-1NP30	65. 65.	3RP1576-2NQ30 3RP1576-2NP30	70. 70.

①Coil voltage tolerance 0.8 to 1.1 × U<sub>S</sub>.  
 ②Coil voltage tolerance 0.7 to 1.1 × U<sub>S</sub>.  
 ③Coil voltage tolerance 0.85 to 1.1 × U<sub>S</sub>.

④With selection of ∞ there is no timing (ON/OFF function).

10  
Logic Control

589



**Label set**

Version	Function	Code Letter	Application	Catalog No	Price \$	Packing Qty
Complete set with 8 functions	On-delay	A	for relays with 1 SPDT contact	3RP1901-0A	21.	5 sets
	Off-delay with auxiliary voltage	B				
	On- and off-delay with auxiliary voltage	C				
	Flashing, starting with interval	D				
	Rising edge pulse	E				
	Falling edge pulse with auxiliary voltage	F				
	Pulse forming with auxiliary voltage	G				
	Cumulative on-delay with auxiliary voltage	H				
Complete set with 16 functions	On-delay	A	for relays with 2 SPDT contacts	3RP1901-0B	29.	5 sets
	On-delay with auxiliary voltage	B				
	On- and off-delay with auxiliary voltage	C				
	Flashing, starting with interval	D				
	Rising edge pulse	E				
	Falling edge pulse with auxiliary voltage	F				
	Pulse forming with auxiliary voltage	G				
	Cumulative on-delay with auxiliary voltage and instantaneous contact	H•				
	On-delay and instantaneous contact	A•				
	Off-delay with auxiliary voltage and instantaneous contact	B•				
	On- and off-delay with auxiliary voltage and instantaneous contact	C•				
	Flashing, starting with interval, and instantaneous contact	D•				
	Rising edge pulse and instantaneous contact	E•				
	Falling edge pulse with auxiliary voltage and instantaneous contact	F•				
	Pulse-shaping with auxiliary voltage and instantaneous contact	G•				
	Wye-delta function	YΔ				
<b>Sealing Cap and Push-in Lug</b>						
Sealing cap	To protect against misadjustment		for relays with 1 or 2 SPDT contacts	3RP1902	18.	5 sets
Push-in lug	For panel mounting		for relays with 1 or 2 SPDT contacts	3RP1903	14.	5 sets with 2 items per set

**Timing diagrams for label set 3RP1901-0A**

Function	time relay energized	contact closed	contact open
<b>1 SPDT contact</b>			
A On-delay			E Rising edge pulse
B Off-delay with auxiliary voltage			F Falling edge pulse with auxiliary voltage
C On- and off-delay with auxiliary voltage (t = t <sub>ON</sub> = t <sub>OFF</sub> )			G Pulse forming with auxiliary voltage (pulse generation at the output does not depend on duration of energizing)
D Flashing, starting with interval (pulse/interval 1:1)			H Cumulative on-delay with auxiliary voltage