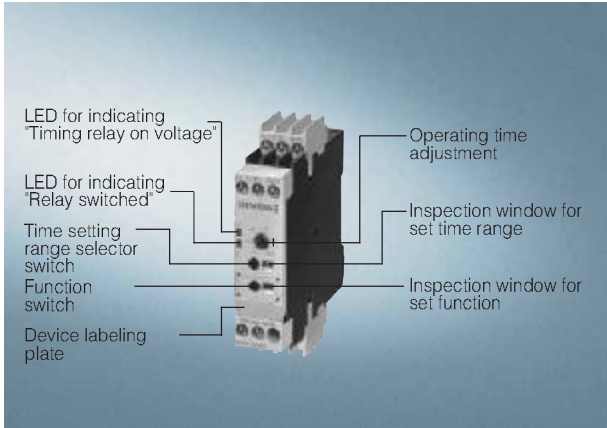


# 3RP Timing Relays

3RP15 timing relays in industrial enclosure, 22.5 mm

## Overview



## Standards

The timing relays comply with:

- EN 60721-3-3 "Environmental conditions"
- EN 61812-1/DIN VDE 0435 Part 2021 "Electrical relays, timing relays"
- EN 61000-6-2 and EN 61000-6-4 "Electromagnetic compatibility"
- EN 60947-5-1; (VDE 0660 Part 200) "Low-voltage switchgear and controlgear"

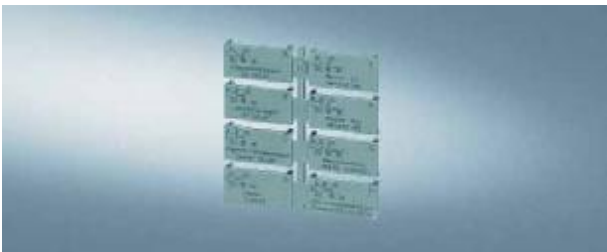
## Accessories



Push-in lugs for screw mounting



Sealable cover



Label set for marking the multifunction relay

## 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 EN 60715 or for screw fixing.

# 3RP Timing Relays

## 3RP15 timing relays in industrial enclosure, 22.5 mm

### Selection and ordering data

Solid-state timing relays for general use in control systems and mechanical engineering with:


- 1 changeover contact or 2 changeover contacts

- Single or selectable time setting ranges
- Switch position indication by LED
- Voltage indication by LED


Version	Time setting range $t$ adjustable by rotary switch to	Rated control supply voltage $U_s$		DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		AC 50/60 Hz	DC		Order No.	Price per PU			kg
		V	V						

### 3RP15 05 timing relays, multifunction, 15 time setting ranges


The functions can be adjusted by means of rotary switches. Insert labels can be used to adjust different functions of the 3RP15 05 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.<sup>1)</sup>

with LED and										
	1 CO contact, 8 functions	0.05 ... 1 s	--	12	A	3RP15 05-1AA40	1	1 unit	101	0.125
		0.15 ... 3 s	24/100 ... 127	24	▶	3RP15 05-1AQ30	1	1 unit	101	0.140
		0.5 ... 10 s	24/200 ... 240	24	▶	3RP15 05-1AP30	1	1 unit	101	0.141
		1.5 ... 30 s	24 ... 240 <sup>3)</sup>	24 ... 240 <sup>3)</sup>	▶	3RP15 05-1AW30	1	1 unit	101	0.136
2 CO contacts, 16 functions	0.05 ... 1 min	24/100 ... 127	24	▶	3RP15 05-1BQ30	1	1 unit	101	0.162	
	5 ... 100 s	24/200 ... 240	24	▶	3RP15 05-1BP30	1	1 unit	101	0.161	
	0.15 ... 3 min	24 ... 240 <sup>3)</sup>	24 ... 240 <sup>3)</sup>	▶	3RP15 05-1BW30	1	1 unit	101	0.168	
	0.5 ... 10 min	400 ... 440	-	A	3RP15 05-1BT20	1	1 unit	101	0.169	
2 CO contacts, positively driven and hard gold-plated. 8 functions <sup>4)5)</sup>	1.5 ... 30 min									
	0.05 ... 1 h	24 ... 240	24 ... 240	▶	3RP15 05-1RW30	1	1 unit	101	0.169	
	5 ... 100 min									
	0.15 ... 3 h									
	0.5 ... 10 h									
	1.5 ... 30 h									
	5 ... 100 h									
	$\infty$ <sup>2)</sup>									


### 3RP15 1. timing relays, ON-delay, 1 time setting range

with LED and 1 CO contact										
	1 CO contact	0.5 ... 10 s	24/100 ... 127	24	▶	3RP15 11-1AQ30	1	1 unit	101	0.108
			24/200 ... 240	24	▶	3RP15 11-1AP30	1	1 unit	101	0.108
		1.5 ... 30 s	24/100 ... 127	24	▶	3RP15 12-1AQ30	1	1 unit	101	0.107
			24/200 ... 240	24	▶	3RP15 12-1AP30	1	1 unit	101	0.104
5 ... 100 s	24/100 ... 127	24	▶	3RP15 13-1AQ30	1	1 unit	101	0.107		
	24/200 ... 240	24	▶	3RP15 13-1AP30	1	1 unit	101	0.108		

### 3RP15 25 timing relays, ON-delay, 15 time setting ranges

with LED and											
	1 CO contact	0.05 ... 1 s	24/100 ... 127	24	▶	3RP15 25-1AQ30	1	1 unit	101	0.109	
		0.15 ... 3 s	24/200 ... 240	24	▶	3RP15 25-1AP30	1	1 unit	101	0.104	
		0.5 ... 10 s									
	2 CO contacts	1.5 ... 30 s	42 ... 48/60	42 ... 48/60 <sup>6)</sup>	A	▶	3RP15 25-1BR30	1	1 unit	101	0.152
		0.05 ... 1 min	24/100 ... 127	24	▶	3RP15 25-1BQ30	1	1 unit	101	0.152	
		5 ... 100 s	24/200 ... 240 <sup>5)</sup>	24	▶	3RP15 25-1BP30	1	1 unit	101	0.155	
		0.15 ... 3 min	24 ... 240	24 ... 240 <sup>3)</sup>	▶	3RP15 25-1BW30	1	1 unit	101	0.159	
		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									
	$\infty$ <sup>2)</sup>										

### 3RP15 27 timing relays, ON-delay, two-wire design, 4 time setting ranges

	1 NO contact (semiconductor)	0.05 ... 1 s	24 ... 66	24...66 <sup>6)</sup>	A	3RP15 27-1EC30	1	1 unit	101	0.099
		0.2 ... 4 s	90 ... 240	90...240 <sup>3)</sup>	▶	3RP15 27-1EM30	1	1 unit	101	0.100
		1.5 ... 30 s								
		12 ... 240 s								

<sup>1)</sup> For functions, see 3RP19 01-0. label set.

<sup>2)</sup> With switch position  $\infty$ , 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.

<sup>3)</sup> Operating range 0.7 to 1.1 x  $U_s$ .

<sup>4)</sup> Positively driven: NO and NC are never closed simultaneously; contact gap  $\geq 0.5$  mm is ensured, minimum make-break capacity 12 V, 3 mA.

<sup>5)</sup> The changeover contacts are actuated simultaneously, as a result of which only 8 functions are selectable (no wye-delta, no instantaneous contact).

<sup>6)</sup> Operating range 0.8 to 1.1 x  $U_s$ .

# 3RP Timing Relays

## 3RP15 timing relays in industrial enclosure, 22.5 mm

Solid-state timing relays for general use in control systems and mechanical engineering with:

- 1 changeover contact or 2 changeover contacts

- Single or selectable time setting ranges
- Switch position indication by LED
- Voltage indication by LED

Version	Time setting range $t$ adjustable by rotary switch to	Rated control supply voltage $U_s$		DT	Spring-loaded terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		AC 50/60 Hz	DC		Order No.	Price per PU			kg
		V	V						
<b>3RP15 05 timing relays, multifunction, 15 time setting ranges</b>									
The functions can be adjusted by means of rotary switches. Insert labels can be used to adjust different functions of the 3RP15 05 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. <sup>1)</sup>									
with LED and									
1 CO contact, 8 functions	0.05 ... 1 s 0.15 ... 3 s 0.5 ... 10 s	24/100 ... 127 24/200 ... 240 24 ... 240 <sup>3)</sup>	24	C A A	<b>3RP15 05-2AQ30</b> <b>3RP15 05-2AP30</b> <b>3RP15 05-2AW30</b>		1	1 unit	101 0.125 101 0.126 101 0.132
2 CO contacts, 16 functions	1.5 ... 30 s 0.05 ... 1 min 5 ... 100 s	24/100 ... 127 24/200 ... 240 24 ... 240 <sup>3)</sup>	24	A A A	<b>3RP15 05-2BQ30</b> <b>3RP15 05-2BP30</b> <b>3RP15 05-2BW30</b>		1	1 unit	101 0.142 101 0.137 101 0.143
2 CO contacts, positively driven and hard gold-plated. 8 functions <sup>4)5)</sup>	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 $\infty$ <sup>2)</sup>	24 ... 240	24 ... 240	A	<b>3RP15 05-2RW30</b>		1	1 unit	101 0.143
<b>3RP15 1. timing relays, ON-delay, 1 time setting range</b>									
with LED and 1 CO contact	0.5 ... 10 s	24/100 ... 127 24/200 ... 240	24	C A	<b>3RP15 11-2AQ30</b> <b>3RP15 11-2AP30</b>		1	1 unit	101 0.092 101 0.092
	1.5 ... 30 s	24/100 ... 127 24/200 ... 240	24	C A	<b>3RP15 12-2AQ30</b> <b>3RP15 12-2AP30</b>		1	1 unit	101 0.092 101 0.097
	5 ... 100 s	24/100 ... 127 24/200 ... 240	24	C C	<b>3RP15 13-2AQ30</b> <b>3RP15 13-2AP30</b>		1	1 unit	101 0.094 101 0.094
<b>3RP15 25 timing relays, ON-delay, 15 time setting ranges</b>									
with LED and									
1 CO contact	0.05 ... 1 s 0.15 ... 3 s	24/100 ... 127 24/200 ... 240	24	C A	<b>3RP15 25-2AQ30</b> <b>3RP15 25-2AP30</b>		1	1 unit	101 0.095 101 0.093
2 CO contacts	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 $\infty$ <sup>2)</sup>	24/100 ... 127 24/200 ... 240 24 ... 240 <sup>6)</sup>	24	C A A	<b>3RP15 25-2BQ30</b> <b>3RP15 25-2BP30</b> <b>3RP15 25-2BW30</b>		1	1 unit	101 0.128 101 0.127 101 0.134
<b>3RP15 27 timing relays, ON-delay, two-wire design, 4 time setting ranges</b>									
1 NO contact (semiconductor)	0.05 ... 1 s 0.2 ... 4 s 1.5 ... 30 s 12 ... 240 s	24 ... 66 90 ... 240	24...66 <sup>6)</sup> 90...240 <sup>3)</sup>	C C	<b>3RP15 27-2EC30</b> <b>3RP15 27-2EM30</b>		1	1 unit	101 0.090 101 0.090

- 1) For functions, see 3RP19 01-0. label set.
- 2) With switch position  $\infty$ , 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 0.7 to 1.1 x  $U_s$ .
- 4) Positively driven: NO and NC are never closed simultaneously; contact gap  $\geq 0.5$  mm is ensured, minimum make-break capacity 12 V, 3 mA.
- 5) The changeover contacts are actuated simultaneously, as a result of which only 8 functions are selectable (no wye-delta, no instantaneous contact).
- 6) Operating range 0.8 to 1.1 x  $U_s$ .

\* You can order this quantity or a multiple thereof.






# 3RP Timing Relays

## 3RP15 timing relays in industrial enclosure, 22.5 mm

Solid-state timing relays for general use in control systems and mechanical engineering with

- 1 changeover contact or 2 changeover contacts

- Single or selectable time setting ranges
- Switch position indication by LED
- Voltage indication by LED

Version	Time setting range $t$ adjustable by rotary switch to	Rated control supply voltage $U_s$	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		
		AC 50/60 Hz V	DC V	Order No.	Price per PU			kg		
<b>3RP15 3. timing relays, OFF-delay, with auxiliary voltage, 1 time setting range</b>										
	with LED and 1 CO contact	0.5 ... 10 s	24/100 ... 127 24/200 ... 240	24 24	A	▶	<b>3RP15 31-1AQ30</b> <b>3RP15 31-1AP30</b>	1 1 unit 1 1 unit	101 101	0.140 0.140
	The same potential must be applied to terminals A and B	1.5 ... 30 s	24/100 ... 127 24/200 ... 240	24 24	A	▶	<b>3RP15 32-1AQ30</b> <b>3RP15 32-1AP30</b>	1 1 unit 1 1 unit	101 101	0.138 0.139
		5 ... 100 s	24/100 ... 127 24/200 ... 240	24 24	A	▶	<b>3RP15 33-1AQ30</b> <b>3RP15 33-1AP30</b>	1 1 unit 1 1 unit	101 101	0.139 0.140
<b>3RP15 40 timing relays, OFF-delay, without auxiliary voltage, 7 time setting ranges<sup>1)</sup></b>										
	with LED and 1 CO contact	0.05 ... 1 s	24	24 <sup>2)</sup>	▶	<b>3RP15 40-1AB30</b>	1 1 unit	101	0.116	
		0.15 ... 3 s	100 ... 127	100...127 <sup>3)</sup>	▶	<b>3RP15 40-1AJ30</b>	1 1 unit	101	0.119	
		0.3 ... 6 s	200 ... 240	200...240 <sup>3)</sup>	▶	<b>3RP15 40-1AN30</b>	1 1 unit	101	0.120	
	2 CO contacts	0.5 ... 10 s	24	24 <sup>2)</sup>	▶	<b>3RP15 40-1BB30</b>	1 1 unit	101	0.159	
		1.5 ... 30 s	100 ... 127	100...127 <sup>3)</sup>	A	<b>3RP15 40-1BJ30</b>	1 1 unit	101	0.161	
		3 ... 60 s	200 ... 240	200...240 <sup>3)</sup>	▶	<b>3RP15 40-1BN30</b>	1 1 unit	101	0.161	
		5 ... 100 s								
<b>3RP15 55 timing relays, clock-pulse relay, 15 time setting ranges</b>										
	with LED and 1 CO contact	0.05 ... 1 s	42 ... 48/60	42...48/ 60 <sup>5)</sup>	A	▶	<b>3RP15 55-1AR30</b>	1 1 unit	101	0.111
		0.15 ... 3 s								
		0.5 ... 10 s	24/100 ... 127	24	▶	<b>3RP15 55-1AQ30</b>	1 1 unit	101	0.111	
		1.5 ... 30 s	24/200 ... 240	24	▶	<b>3RP15 55-1AP30</b>	1 1 unit	101	0.111	
		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								
	$\infty$ <sup>4)</sup>									
<b>3RP15 60 timing relays, wye-delta function, dead interval 50 ms and overtravel time, 1 time setting range</b>										
	3 NO contacts <sup>3)</sup> (common contact root terminal 17)	wye-delta	24/100 ... 127 24/200 ... 240	24 24	A	▶	<b>3RP15 60-1SQ30</b> <b>3RP15 60-1SP30</b>	1 1 unit 1 1 unit	101 101	0.172 0.175
		1 ... 20 s, overtravel time (idling) 30 ... 600 s								
<b>3RP15 7. timing relays, wye-delta function<sup>6)</sup>, dead interval 50 ms, 1 time setting range</b>										
	1 NO contact instantaneous and 1 NO contact delayed (common contact root terminal 17)	1 ... 20 s	24/100 ... 127 24/200 ... 240	24 24	▶	<b>3RP15 74-1NQ30</b> <b>3RP15 74-1NP30</b>	1 1 unit 1 1 unit	101 101	0.113 0.113	
		200 ... 240/380 ... 440		--	B	▶	<b>3RP15 74-1NM20</b>	1 1 unit	101	0.113
		3 ... 60 s	24/100 ... 127 24/200 ... 240	24 24	▶	<b>3RP15 76-1NQ30</b> <b>3RP15 76-1NP30</b>	1 1 unit 1 1 unit	101 101	0.112 0.113	
		200 ... 240/380 ... 440		--	B	▶	<b>3RP15 76-1NM20</b>	1 1 unit	101	0.113

<sup>1)</sup> Setting of output contacts in as-supplied state not defined (bistable relay). Application of the control voltage once results in contact changeover to the correct setting.

<sup>2)</sup> Operating range 0.7 to 1.25 x  $U_s$ .

<sup>3)</sup> Operating range 0.85 to 1.1 x  $U_s$ .

<sup>4)</sup> With switch position  $\infty$ , no timing. For test purposes (ON/OFF function) on site. For dead time "infinite", the relay is always off. For pulse time "infinite", the relay is always on.

<sup>5)</sup> Operating range 0.8 to 1.1 x  $U_s$ .

<sup>6)</sup> For example circuit, see LV 1 T "Technical Information", Circuit Diagrams.

# 3RP Timing Relays

## 3RP15 timing relays in industrial enclosure, 22.5 mm

Solid-state timing relays for general use in control systems and mechanical engineering with

- 1 changeover contact or 2 changeover contacts

- Single or selectable time setting ranges
- Switch position indication by LED
- Voltage indication by LED

Version	Time setting range $t$ adjustable by rotary switch to	Rated control supply voltage $U_s$		DT	Spring-loaded terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
		AC 50/60 Hz	DC							
		V	V		Order No.	Price per PU			kg	
<b>3RP15 3. timing relays, OFF-delay, with auxiliary voltage, 1 time setting range</b>										
with LED and 1 CO contact The same potential must be applied to terminals A and B	0.5 ... 10 s	24/100 ... 127	24	C	<b>3RP15 31-2AQ30</b>		1	1 unit	101	0.124
		24/200 ... 240	24	A	<b>3RP15 31-2AP30</b>		1	1 unit	101	0.122
	1.5 ... 30 s	24/100 ... 127	24	C	<b>3RP15 32-2AQ30</b>		1	1 unit	101	0.125
		24/200 ... 240	24	C	<b>3RP15 32-2AP30</b>		1	1 unit	101	0.121
	5 ... 100 s	24/100 ... 127	24	C	<b>3RP15 33-2AQ30</b>		1	1 unit	101	0.123
		24/200 ... 240	24	C	<b>3RP15 33-2AP30</b>		1	1 unit	101	0.125
<b>3RP15 40 timing relays, OFF-delay, without auxiliary voltage, 7 time setting ranges<sup>1)</sup></b>										
with LED and										
1 CO contact	0.05 ... 1 s	24	24 <sup>2)</sup>	A	<b>3RP15 40-2AB30</b>		1	1 unit	101	0.105
	0.15 ... 3 s	100 ... 127	100...127 <sup>3)</sup>	A	<b>3RP15 40-2AJ30</b>		1	1 unit	101	0.108
	0.3 ... 6 s	200 ... 240	200...240 <sup>3)</sup>	A	<b>3RP15 40-2AN30</b>		1	1 unit	101	0.110
2 CO contacts	0.5 ... 10 s	24	24 <sup>2)</sup>	A	<b>3RP15 40-2BB30</b>		1	1 unit	101	0.136
	1.5 ... 30 s	100 ... 127	100...127 <sup>3)</sup>	C	<b>3RP15 40-2BJ30</b>		1	1 unit	101	0.136
	3 ... 60 s	200 ... 240	200...240 <sup>3)</sup>	C	<b>3RP15 40-2B30</b>		1	1 unit	101	0.136
	5 ... 100 s	200 ... 240	200...240 <sup>3)</sup>	C	<b>3RP15 40-2BN30</b>		1	1 unit	101	0.136
<b>3RP15 55 timing relays, clock-pulse relay, 15 time setting ranges</b>										
with LED and 1 changeover contact	0.05 ... 1 s	42 ... 48/60	42...48/60 <sup>5)</sup>	C	<b>3RP15 55-2AR30</b>		1	1 unit	101	0.102
	0.15 ... 3 s	24/100 ... 127	24	C	<b>3RP15 55-2AQ30</b>		1	1 unit	101	0.100
	0.5 ... 10 s	24/200 ... 240	24	A	<b>3RP15 55-2AP30</b>		1	1 unit	101	0.104
	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									
$\infty$ <sup>4)</sup>										
<b>3RP15 60 timing relays, wye-delta function, dead interval 50 ms and overtravel time, 1 time setting range</b>										
3 NO contacts <sup>3)</sup> (common contact root terminal 17)	wye-delta 1 ... 20 s, overtravel time (idling) 30 ... 600 s	24/200 ... 240	24	C	<b>3RP15 60-2SP30</b>		1	1 unit	101	0.152
<b>3RP15 7. timing relays, wye-delta function<sup>6)</sup>, dead interval 50 ms, 1 time setting range</b>										
1 NO contact instantaneous and 1 NO contact delayed (common contact root terminal 17)	1 ... 20 s	24/200 ... 240	24	A	<b>3RP15 74-2NP30</b>		1	1 unit	101	0.104
		200 ... 240/ 380 ... 440		B	<b>3RP15 74-2NM20</b>		1	1 unit	101	0.100
3 ... 60 s		24/100 ... 127	24	C	<b>3RP15 76-2NQ30</b>		1	1 unit	101	0.102
		24/200 ... 240	24	A	<b>3RP15 76-2NP30</b>		1	1 unit	101	0.104
		200 ... 240/ 380 ... 440		B	<b>3RP15 76-2NM20</b>		1	1 unit	101	0.100

<sup>1)</sup> Setting of output contacts in as-supplied state not defined (bistable relay). Application of the control voltage once results in contact changeover to the correct setting.

<sup>2)</sup> Operating range 0.7 to 1.25 x  $U_s$ .

<sup>3)</sup> Operating range 0.85 to 1.1 x  $U_s$ .

<sup>4)</sup> With switch position  $\infty$ , no timing. For test purposes (ON/OFF function) on site. For dead time "infinite", the relay is always off. For pulse time "infinite", the relay is always on.

<sup>5)</sup> Operating range 0.8 to 1.1 x  $U_s$ .

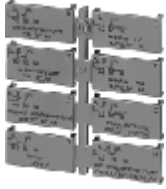
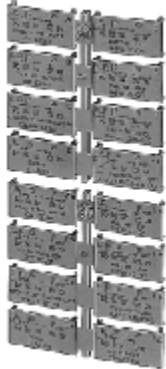


<sup>6)</sup> For example circuit, see LV 1 T "Technical Information", Circuit Diagrams.

\* You can order this quantity or a multiple thereof.

# 3RP Timing Relays

## 3RP15 timing relays in industrial enclosure, 22.5 mm

### Accessories

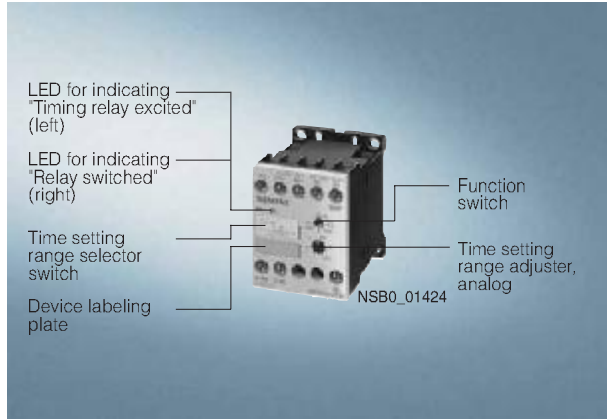
Version	Function	Identification letter	Application	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		
<b>Label sets</b>												
Accessory for 3RP15 05 (not included in the scope of supply). The label set offers the possibility of labeling timing relays with the set function in English and German.												
 3RP19 01-0A	1 label set (1 unit) with 8 functions	With ON-delay OFF-delay with auxiliary voltage ON-delay and OFF-delay with auxiliary voltage Flashing, starting with interval Passing make contact Passing break contact with auxiliary voltage Pulse-forming with auxiliary voltage Additive ON-delay with auxiliary voltage	A B C D E F G H	for devices with 1 CO contact and 3RP15 05-.RW30	▶	<b>3RP19 01-0A</b>	1	5 units	101	0.003		
	 3RP19 01-0B	1 label set (1 unit) with 16 functions	ON-delay OFF-delay with auxiliary voltage ON-delay and OFF-delay with auxiliary voltage Flashing, starting with interval Passing make contact Passing break contact with auxiliary voltage Pulse-forming with auxiliary voltage Additive ON-delay with auxiliary voltage and instantaneous contact ON-delay and instantaneous contact OFF-delay with auxiliary voltage and instantaneous contact ON-delay and OFF-delay with auxiliary voltage and instantaneous contact Flashing, starting with interval, and instantaneous contact Passing make contact and instantaneous contact Passing break contact with auxiliary voltage and instantaneous contact Pulse-forming with auxiliary voltage and instantaneous contact Wye-delta function	A B C D E F G H• A• B• C• D• E• F• G• YΔ	for devices with 2 CO contacts	▶	<b>3RP19 01-0B</b>	1	5 units	101	0.006	
		<b>Blank labels</b>										
			Blank labels, 20 mm x 7 mm, pastel turquoise <sup>1)</sup>			C	▶	<b>3RT19 00-1SB20</b>	100	340 units	101	0.220
		<b>Covering caps and push-in lugs</b>										
		 3RP19 03	<b>Push-in lugs</b> for screw mounting, 2 units are required for each device			for devices with 1 or 2 CO contacts	▶	<b>3RP19 03</b>	1	10 units	101	0.002
			 3RP19 02	<b>Sealable covers</b> for securing against unauthorized adjustment of setting knobs			for devices with 1 or 2 CO contacts	▶	<b>3RP19 02</b>	1	5 units	101

<sup>1)</sup> Computer labeling system for individual labeling of unit labeling plates available from: murrplastik Systemtechnik GmbH.

# 3RP Timing Relays

## 3RP20 timing relays, 45 mm

### Overview

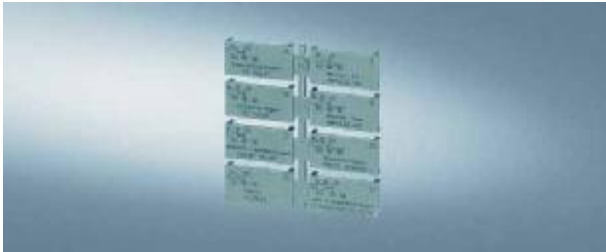


### Standards

The timing relays comply with:

- EN 60721-3-3 "Environmental conditions"
- EN 61812-1/DIN VDE 0435 Part 2021 "Electrical relays, timing relays"
- EN 61000-6-2 and EN 61000-6-4 "Electromagnetic compatibility"
- EN 60947-5-1 (VDE 0660 Part 200) "Low-voltage switchgear and controlgear"
- EN 61140 "Safe electrical isolation"

### Accessories



Label set for marking the multifunction relay

### 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.

# 3RP Timing Relays



## 3RP20 timing relays, 45 mm

### Selection and ordering data

#### Multifunction

The functions can be adjusted by means of rotary switches<sup>1)</sup>. Insert labels can be used to adjust different functions of the 3RP20 05 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.

Version	Time setting range	Rated control supply voltage $U_s$		DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
		AC 50/60 Hz	DC		Order No.	Price per PU			kg	
		V	V							
<b>3RP20 05 timing relays, multifunction, 15 time setting ranges</b>										
	with LED and 1 CO contact, 8 functions <sup>1)2)</sup>	0.05 ... 1 s	24/100 ... 127	24	▶	<b>3RP20 05-1AQ30</b>	1	1 unit	101	0.118
		0.15 ... 3 s	24/200 ... 240	24	▶	<b>3RP20 05-1AP30</b>	1	1 unit	101	0.119
		0.5 ... 10 s								
	with LED and 2 CO contacts, 16 functions <sup>1)</sup>	1.5 ... 30 s	24 ... 240 <sup>4)</sup>	24 ... 240 <sup>5)</sup>	D	<b>3RP20 05-1BW30</b>	1	1 unit	101	0.128
		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								
		$\infty$ <sup>3)</sup>								
<b>3RP20 25. timing relays, ON-delay, 15 time setting ranges</b>										
	with LED and 1 CO contact <sup>2)</sup>	0.05 ... 1 s	24/100 ... 127	24	▶	<b>3RP20 25-1AQ30</b>	1	1 unit	101	0.106
		0.15 ... 3 s	24/200 ... 240	24	▶	<b>3RP20 25-1AP30</b>	1	1 unit	101	0.106
		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								
		$\infty$ <sup>3)</sup>								

1) For functions, see 3RP19 01-0. label set.

2) Units with safe electrical isolation.

3) With switch position  $\infty$ , 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.

4) Operating range 0.8 ... 1.1 x  $U_s$ .

5) Operating range 0.7 ... 1.1 x  $U_s$ .



# 3RP Timing Relays

## 3RP20 timing relays, 45 mm

### Selection and ordering data

#### Multifunction

The functions can be adjusted by means of rotary switches<sup>1)</sup>. Insert labels can be used to adjust different functions of the 3RP20 05 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.

Version	Time setting range $t$	Rated control supply voltage $U_s$		DT	Spring-loaded terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		
		AC 50/60 Hz	DC		Order No.	Price per PU			kg		
		V	V								
<b>3RP20 05 timing relays, multifunction, 15 time setting ranges</b>											
with LED and 1 CO contact, 8 functions <sup>1)2)</sup>	0.05 ... 1 s	24/ 100 ... 127	24	D	<b>3RP20 05-2AQ30</b>		1	1 unit	101	0.120	
	0.15 ... 3 s	24/ 200 ... 240	24	▶	<b>3RP20 05-2AP30</b>		1	1 unit	101	0.121	
	0.5 ... 10 s										
with LED and 2 CO contacts, 16 functions <sup>1)</sup>	1.5 ... 30 s	24 ... 240 <sup>4)</sup>	24 ... 240 <sup>5)</sup>	A	<b>3RP20 05-2BW30</b>		1	1 unit	101	0.131	
	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										
	$\infty$ <sup>3)</sup>										
	<b>3RP20 25. timing relays, ON-delay, 15 time setting ranges</b>										
	with LED and 1 CO contact <sup>2)</sup>	0.05 ... 1 s	24/ 100 ... 127	24		D	<b>3RP20 25-2AQ30</b>		1	1 unit	101
0.15 ... 3 s		24/ 200 ... 240	24	A	<b>3RP20 25-2AP30</b>		1	1 unit	101	0.108	
	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										
	$\infty$ <sup>3)</sup>										

<sup>1)</sup> For functions, see 3RP19 01-0. label set.

<sup>2)</sup> Units with safe electrical isolation.

<sup>3)</sup> With switch position  $\infty$ , 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.

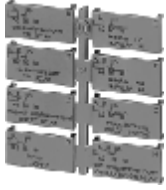
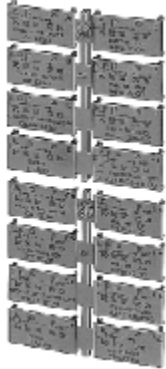
<sup>4)</sup> Operating range 0.8 to 1.1 x  $U_s$ .

<sup>5)</sup> Operating range 0.7 to 1.1 x  $U_s$ .

# 3RP Timing Relays

## 3RP20 timing relays, 45 mm

### Accessories




Version	Function	Identification letter	Application	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		
<b>Label sets</b>												
Accessory for 3RP20 05 (not included in the scope of supply). The label set offers the possibility of labeling timing relays with the set function in English and German.												
 3RP19 01-0A	1 label set (1 unit) with 8 functions	With ON-delay OFF-delay with auxiliary voltage ON-delay and OFF-delay with auxiliary voltage Flashing, starting with interval Passing make contact Passing break contact with auxiliary voltage Pulse-forming with auxiliary voltage Additive ON-delay with auxiliary voltage	A B C D E F G H	for devices with 1 CO contact and 3RP15 05-.RW30	▶	<b>3RP19 01-0A</b>	1	5 units	101	0.003		
	 3RP19 01-0B	1 label set (1 unit) with 16 functions	With ON-delay OFF-delay with auxiliary voltage ON-delay and OFF-delay with auxiliary voltage Flashing, starting with interval Passing make contact Passing break contact with auxiliary voltage Pulse-forming with auxiliary voltage Additive ON-delay with auxiliary voltage and instantaneous contact ON-delay and instantaneous contact OFF-delay with auxiliary voltage and instantaneous contact ON-delay and OFF-delay with auxiliary voltage and instantaneous contact Flashing, starting with interval, and instantaneous contact Passing make contact and instantaneous contact Passing break contact with auxiliary voltage and instantaneous contact Pulse-forming with auxiliary voltage and instantaneous contact Wye-delta function	A B C D E F G H• A• B• C• D• E• F• G• YΔ	for devices with 2 CO contacts	▶	<b>3RP19 01-0B</b>	1	5 units	101	0.006	
		<b>Blank labels</b>										
			Blank labels, 20 mm x 7 mm, pastel turquoise <sup>1)</sup>			C	<b>3RT19 00-1SB20</b>		100	340 units	101	0.220

<sup>1)</sup> Computer labeling system for individual labeling of unit labeling plates available from: murrplastik Systemtechnik GmbH.

# 3RP Timing Relays

## 3RT19 timing relays for mounting onto contactors

### Selection and ordering data

For contactors	Auxiliary contacts Function:  Timing relay energized  Timing relay closed  Contact open	Rated control supply voltage $U_s$	Time setting range $t$	DT	Screw terminals Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type		V	s							kg

### For size S00<sup>1)</sup>, with screw terminal



3RT19 16-2...

#### Terminal designations according to EN 46199 Part 5

##### • ON-delay (varistor integrated)

3RT10 1, 3RH11	1 NO + 1 NC	24 AC/DC	0.05 ... 1	▶	<b>3RT19 16-2EJ11</b>		1	1 unit	101	0.085
			0.5 ... 10	▶	<b>3RT19 16-2EJ21</b>		1	1 unit	101	0.084
			5 ... 100	B	<b>3RT19 16-2EJ31</b>		1	1 unit	101	0.086
A1 A2			0.05 ... 1	C	<b>3RT19 16-2EC11</b>		1	1 unit	101	0.087
27 2		100 ... 127 AC	0.5 ... 10	▶	<b>3RT19 16-2EC21</b>		1	1 unit	101	0.087
			5 ... 100	▶	<b>3RT19 16-2EC31</b>		1	1 unit	101	0.086
35 36		200 ... 240 AC	0.05 ... 1	D	<b>3RT19 16-2ED11</b>		1	1 unit	101	0.088
			0.5 ... 10	▶	<b>3RT19 16-2ED21</b>		1	1 unit	101	0.089
			5 ... 100	▶	<b>3RT19 16-2ED31</b>		1	1 unit	101	0.090

##### • OFF-delay without auxiliary voltage (varistor integrated)<sup>2)</sup>

	1 NO + 1 NC	24 AC/DC	0.05 ... 1	▶	<b>3RT19 16-2FJ11</b>		1	1 unit	101	0.087
			0.5 ... 10	▶	<b>3RT19 16-2FJ21</b>		1	1 unit	101	0.088
			5 ... 100	▶	<b>3RT19 16-2FJ31</b>		1	1 unit	101	0.089
A1 A2		100 ... 127 AC	0.05 ... 1	D	<b>3RT19 16-2FK11</b>		1	1 unit	101	0.086
27 2		100 ... 127 AC	0.5 ... 10	▶	<b>3RT19 16-2FK21</b>		1	1 unit	101	0.087
			5 ... 100	B	<b>3RT19 16-2FK31</b>		1	1 unit	101	0.088
35 36		200 ... 240 AC	0.05 ... 1	D	<b>3RT19 16-2FL11</b>		1	1 unit	101	0.089
			0.5 ... 10	▶	<b>3RT19 16-2FL21</b>		1	1 unit	101	0.089
			5 ... 100	▶	<b>3RT19 16-2FL31</b>		1	1 unit	101	0.089

##### • OFF-delay with auxiliary voltage

	1 CO contact	24 AC/DC	0.5 ... 10	B	<b>3RT19 16-2LJ21</b>		1	1 unit	101	0.083
A1 A2		100 ... 127 AC		B	<b>3RT19 16-2LC21</b>		1	1 unit	101	0.085
		200 ... 240 AC		B	<b>3RT19 16-2LD21</b>		1	1 unit	101	0.085
B1 A2										
15 1										
15 16										

##### • Wye-delta function (varistor integrated)

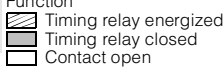



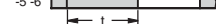


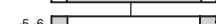



	1 NO, delayed +	24 AC/DC	1.5 ... 30	▶	<b>3RT19 16-2GJ51</b>		1	1 unit	101	0.086
	1 NO, instantaneous, dead time 50 ms	100 ... 127 AC		D	<b>3RT19 16-2GC51</b>		1	1 unit	101	0.087
		200 ... 240 AC		▶	<b>3RT19 16-2GD51</b>		1	1 unit	101	0.090
A1 A2										
Y 27 2										
Δ 37 3										

<sup>1)</sup> The terminals for the rated control supply voltage are connected to the contactor beneath by the integrated spring-type contacts of the solid-state time-delay auxiliary switch block when mounting.

<sup>2)</sup> Setting of output contacts in as-supplied state not defined (bistable relay). Application of the control voltage once results in contact changeover to the correct setting.

# 3RP Timing Relays









## 3RT19 timing relays for mounting onto contactors

For contactors	Auxiliary contacts Function 	Rated control supply voltage $U_s$	Time setting range $t$	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		
					Order No.	Price per PU						
Type		V	s							kg		
<b>For sizes S0 to S12<sup>2)</sup>, with screw terminal</b>												
 3RT19 26-2...	• ON-delay											
	3RT10 2, 3RT10 3, 3RT10 4	1 NO + 1 NC	24 AC/DC	0.05 ... 1	D	<b>3RT19 26-2EJ11</b>		1	1 unit	101	0.081	
				0.5 ... 10	▶	<b>3RT19 26-2EJ21</b>		1	1 unit	101	0.081	
				5 ... 100	A	<b>3RT19 26-2EJ31</b>		1	1 unit	101	0.082	
		A1 A2 		100 ... 127 AC	0.05 ... 1	C	<b>3RT19 26-2EC11</b>		1	1 unit	101	0.083
		-7- 			0.5 ... 10	▶	<b>3RT19 26-2EC21</b>		1	1 unit	101	0.083
		-5-6 			5 ... 100	D	<b>3RT19 26-2EC31</b>		1	1 unit	101	0.083
				200 ... 240 AC	0.05 ... 1	D	<b>3RT19 26-2ED11</b>		1	1 unit	101	0.085
					0.5 ... 10	▶	<b>3RT19 26-2ED21</b>		1	1 unit	101	0.085
					5 ... 100	B	<b>3RT19 26-2ED31</b>		1	1 unit	101	0.085
		• OFF-delay without auxiliary voltage <sup>1)</sup>										
		1 NO + 1 NC	24 AC/DC	0.05 ... 1	▶	<b>3RT19 26-2FJ11</b>		1	1 unit	101	0.085	
				0.5 ... 10	▶	<b>3RT19 26-2FJ21</b>		1	1 unit	101	0.084	
				5 ... 100	▶	<b>3RT19 26-2FJ31</b>		1	1 unit	101	0.085	
		A1 A2 		100 ... 127 AC	0.05 ... 1	D	<b>3RT19 26-2FK11</b>		1	1 unit	101	0.087
	-7- 			0.5 ... 10	▶	<b>3RT19 26-2FK21</b>		1	1 unit	101	0.086	
	-5-6 			5 ... 100	C	<b>3RT19 26-2FK31</b>		1	1 unit	101	0.087	
			200 ... 240 AC	0.05 ... 1	D	<b>3RT19 26-2FL11</b>		1	1 unit	101	0.086	
				0.5 ... 10	A	<b>3RT19 26-2FL21</b>		1	1 unit	101	0.084	
				5 ... 100	A	<b>3RT19 26-2FL31</b>		1	1 unit	101	0.086	
	• Wye-delta function											
	1 NO, delayed +	24 AC/DC	1.5 ... 30	▶	<b>3RT19 26-2GJ51</b>		1	1 unit	101	0.084		
	1 NO, instantaneous,	100 ... 127 AC		▶	<b>3RT19 26-2GC51</b>		1	1 unit	101	0.085		
	dead time 50 ms	200 ... 240 AC		▶	<b>3RT19 26-2GD51</b>		1	1 unit	101	0.088		
	A1 A2 											
	Y-7- 											
	Δ-7- 											

- <sup>1)</sup> Setting of output contacts in as-supplied state not defined (bistable relay).  
Application of the control voltage once results in contact changeover to the correct setting.
- <sup>2)</sup> 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.

# 3RP Timing Relays

## 3RT19 timing relays for mounting onto contactors

For contactors	Function	Rated control supply voltage $U_s$	Time setting range $t$	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
					Order No.	Price per PU				
<b>For size S00, with semiconductor output and screw terminal</b>										
<b>For mounting onto the front of contactors</b>										
The electrical connection between the time-relay block and the contactor beneath is established automatically when it is snapped on.										
• ON-delay, two-wire version (varistor integrated)										
 3RT1. 1, 3RH11 3RT19 16-2C...	A1 A2	24 ... 66 AC/DC	0.05 ... 1	B	3RT19 16-2CG11		1	1 unit	101	0.051
	Ti in r		0.5 ... 10	B	3RT19 16-2CG21		1	1 unit	101	0.051
				5 ... 100	B	3RT19 16-2CG31		1	1 unit	101
 3RT19 16-2D...	A1 A2	90 ... 240 AC/DC	0.05 ... 1	D	3RT19 16-2CH11		1	1 unit	101	0.052
	Cont tor		0.5 ... 10	B	3RT19 16-2CH21		1	1 unit	101	0.052
				5 ... 100	B	3RT19 16-2CH31		1	1 unit	101
• OFF-delay with auxiliary voltage (varistor integrated)										
 3RT19 16-2D...	A1 A2	24 ... 66 AC/DC	0.05 ... 1	C	3RT19 16-2DG11		1	1 unit	101	0.057
	Ti in r		0.5 ... 10	B	3RT19 16-2DG21		1	1 unit	101	0.057
	B1 A2			5 ... 100	B	3RT19 16-2DG31		1	1 unit	101
 3RT19 16-2D...	A1 A2	90 ... 240 AC/DC	0.05 ... 1	D	3RT19 16-2DH11		1	1 unit	101	0.053
	Cont tor		0.5 ... 10	B	3RT19 16-2DH21		1	1 unit	101	0.060
				5 ... 100	B	3RT19 16-2DH31		1	1 unit	101
<b>For sizes S0 to S3, with semiconductor output and screw terminal</b>										
<b>For mounting onto coil terminals on top of the contactors</b>										
The electrical connection between the relay block and the corresponding contactor is established by screwing the two connecting pins of the time-relay block to coil terminals A1/A2 on top of the contactor.										
• ON-delay, two-wire version (varistor integrated)										
 3RT10 2, 3RT10 3, 3RT10 4 <sup>1)</sup> 3RT19 26-2C...	A1 A2	24 ... 66 AC/DC	0.05 ... 1	D	3RT19 26-2CG11		1	1 unit	101	0.048
	Ti in r		0.5 ... 10	B	3RT19 26-2CG21		1	1 unit	101	0.049
				5 ... 100	D	3RT19 26-2CG31		1	1 unit	101
 3RT19 26-2D...	A1 A2	90 ... 240 AC/DC	0.05 ... 1	B	3RT19 26-2CH11		1	1 unit	101	0.048
	Cont tor		0.5 ... 10	B	3RT19 26-2CH21		1	1 unit	101	0.047
				5 ... 100	B	3RT19 26-2CH31		1	1 unit	101
• OFF-delay with auxiliary voltage (varistor integrated)										
 3RT19 26-2D...	A1 A2	24 ... 66 AC/DC	0.05 ... 1	D	3RT19 26-2DG11		1	1 unit	101	0.050
	Ti in r		0.5 ... 10	D	3RT19 26-2DG21		1	1 unit	101	0.051
	B1 A2			5 ... 100	D	3RT19 26-2DG31		1	1 unit	101
 3RT19 26-2D...	A1 A2	90 ... 240 AC/DC	0.05 ... 1	C	3RT19 26-2DH11		1	1 unit	101	0.050
	Cont tor		0.5 ... 10	D	3RT19 26-2DH21		1	1 unit	101	0.050
				5 ... 100	C	3RT19 26-2DH31		1	1 unit	101

<sup>1)</sup> Not for 3RT10 4 contactor with 24 to 42 V rated control supply voltage.