Features

- Multi-function time relay for universal use in automation, control and regulation or in house installations.
- Three control inputs - START, INHIBIT, RESET.
- Possibility to select the control element for fine time setting:
- PTRA-216T - rotary switch, for the possibility of using a sealable cover
- Relay mode selection - according to the set function, permanently closed, permanently open, and switching of the second relay according to the supply voltage.
- Universal supply voltage AC/DC 12 – 240 V.
- Output contact: 2x changeover / SPDT 16 A.
- Multifunction red LED flashes or shines depending on the operating status.

RS PRO Timer Relays

0360693

RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

- *Multi-function time relay for universal use in automation, control and regulation or in house installations.*
- *Three control inputs - START, INHIBIT, RESET.*
- *Possibility to select the control element for fine time setting:*
- *PTRA-216T - rotary switch, for the possibility of using a sealable cover*
- *Relay mode selection - according to the set function, permanently closed, permanently open, and switching of the second relay according to the supply voltage.*
- *Universal supply voltage AC/DC 12 – 240 V.*
- *Time scale 50 ms - 30 days divided into 10 ranges: (50 ms - 0.5 s / 0.1 s - 1 s / 1 s - 10 s / 0.1 min - 1 min / 1 min - 10 min / 0.1 hr - 1 hrs / 1 hrs - 10 hrs / 0.1 days - 1 day / 1 day - 10 days / 3 days - 30 days).*
- *Output contact: 2x changeover / SPDT 16 A.*
- *Multifunction red LED flashes or shines depending on the operating status.*

Power supply

Power pins:	2, 10
Voltage range:	AC/DC 12 – 240V (AC 50 – 60 Hz)
Power input (max.):	2.5 VA / 1.5 W
Supply voltage tolerance:	±10 %
Supply indication:	green LED
Power pins:	2, 10

Time circuit

Number of functions:	10
Time ranges:	50 ms - 30 days
Time setting:	rotary switch and potentiometer
Time deviation:*	5 % - mechanical setting
Repeat accuracy:	0.2 % - set value stability
Temperature coefficient:	0.01 % / °C, at = 20 °C (0.01 % / °F, at = 68 °F)

Output

Number of contacts	2x changeover / SPDT (AgNi)
Current rating:	16 A / AC1
Breaking capacity:	4000 VA / AC1, 384 W / DC
Switching voltage:	250V AC / 24V DC
Max. power dissipation:	2.4 W
Output indication:	multifunction red LED
Mechanical life:	10 000 000 operations
Electrical life (AC1):	50 000 operations

Control

Control pins:	5 - 2, 6 - 2, 7 - 2
Impulse length:	min. 25 ms / max. unlimited
Reset time:	max. 150 ms

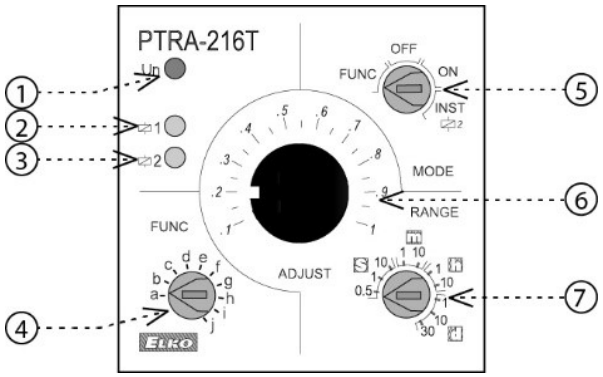
Other information

Operating temperature:	20 °C to +55 °C (-4 °F to 131 °F)
Storage temperature:	-30 °C to +70 °C (-22 °F to 158 °F)
Dielectrical strength:	
supply - output 1 (1, 3, 4)	2.5 kV AC
supply - output 2 (8, 9, 11)	2.5 kV AC
output 1 - output 2	2.5 kV AC
Operating position:	any
Mounting:	11 pin octal socket
Protection degree:	IP40 from front panel
Overvoltage category:	
for supply voltage 12-150V AC/DC	III.
for supply voltage 150-240V AC/DC	II.
Pollution degree:	2
Dimensions:	48x48x79mm (1.7x1.7x3.1inch)
Weight:	107 g (3.77 oz)

Standards:	EN 61812-1

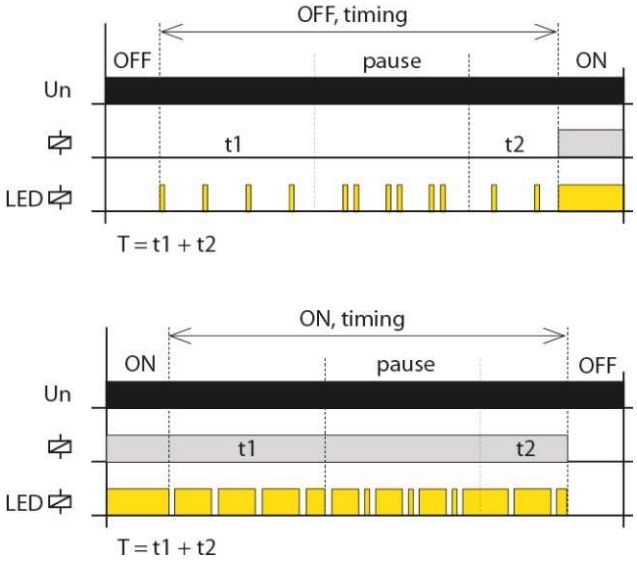
** for adjustable delay < 100ms, a time deviation of ± 10ms applies*

Description

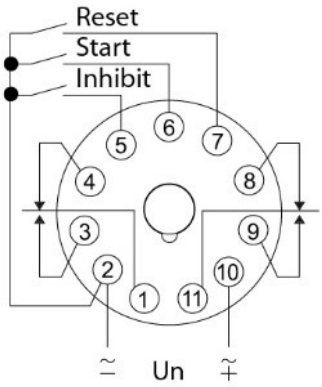


1. Supply indication
2. Output indication 1
3. Output indication 2
4. Function setting
5. Relay mode setlection
6. Fine time setting PTRA-216T: rotary switch
7. Time range setting

Indication of operating states



Connection



Relay mode selection

FUNC. SETTINGS FUNCTION MODE

The desired function a-j is set with the FUNC rotary switch.

OFF. RELAY OPEN MODE

ON. RELAY CLOSED MODE

2 INST. SECOND RELAY INSTANTANEOUS

The second relay switches according to the supply voltage.
The first relay switches according to the function (a-j) set by the trimmer FUNC.

Function

Control input function description:

Contact START starts the time function

INHIBIT contact pauses timing (pause)

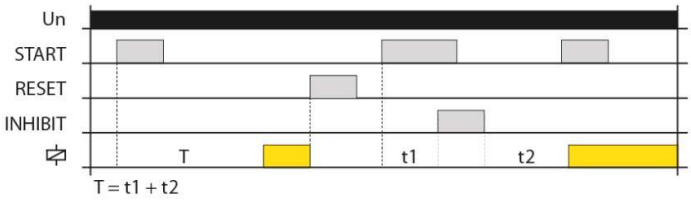
The RESET contact simulates switching the supply voltage on and off

Same for all features:

- If the control contact START is closed and the supply voltage is connected, the time function is activated when the supply voltage is connected.
- Closing the control contact INHIBIT pauses the timing, after opening the control contact INHIBIT timing continues from the moment of interruption.
- If the INHIBIT control contact is closed, the START control contact is activated and the timing is paused.

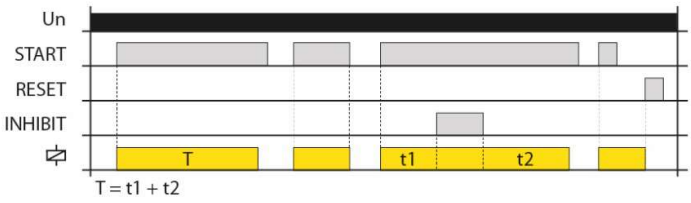
- Closing the control contact RESET immediately terminates the timing and the relay opens, just as when the supply voltage is disconnected.
- If the control contact RESET is closed and then the control contact START is closed, the time function is activated when the control contact RESET is opened as well as when the supply voltage is connected.

a. ON DELAY with Control Signal



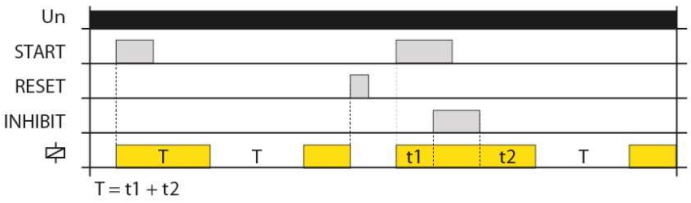
When the supply voltage is applied, the relay is open. If the control contact START is closed, the time delay T starts. The closing of the START control contact during timing is ignored.

b. INTERVAL ON with Control Signal



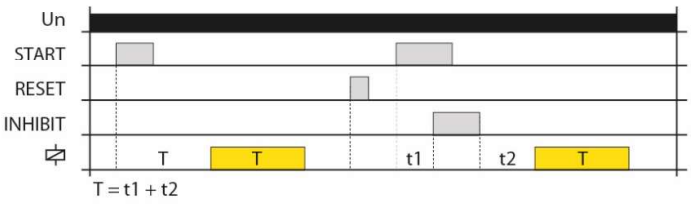
When the supply voltage is applied, the relay is open. When the control contact START is closed, the relay closes and the time delay T begins.
If the START control contact is open during timing, the time interval is immediately terminated and the relay opens.

c. FLASHER - ON first with Control Signal



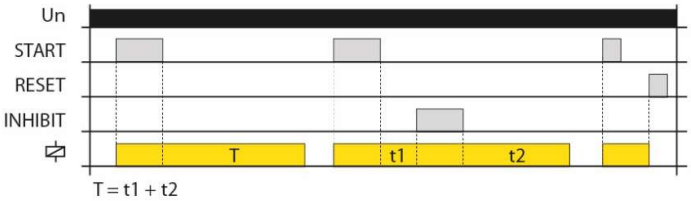
When the supply voltage is applied, the relay is open. When the START control contact is closed, the relay energizes and starts the delay time T. After the end of the timing relay opens and again runs delay time T. Upon completion timing again switches, and the sequence is repeated until the supply voltage is disconnected.

d. FLASHER – OFF first with Control Signal



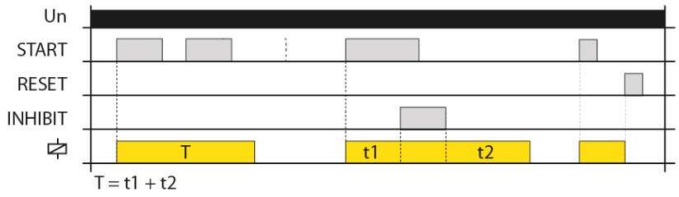
When the supply voltage is applied, the relay is open. When the START control contact is closed, starts the time delay T. After the end of the timing relay closes and again runs delay time T. After the end of the timing relay opens and the sequence is repeated until the supply voltage is disconnected.

e. OFF DELAY



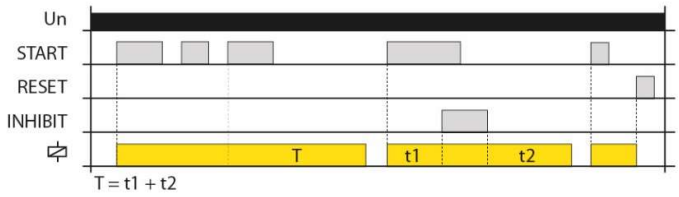
When the supply voltage is applied, the relay is open. If the control contact START is closed, the relay

f. SINGLE SHOT



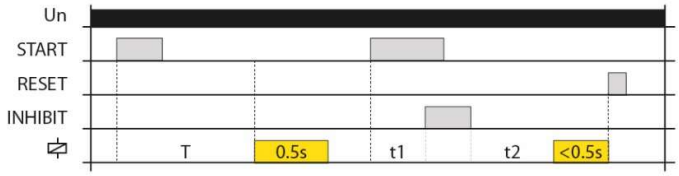
When the supply voltage is applied, the relay is open. When the START control contact is closed, the relay energizes and starts the delay time T. After the end of the timing relay is switched off. The closing of the START control contact during timing is ignored.

g. WATCHDOG



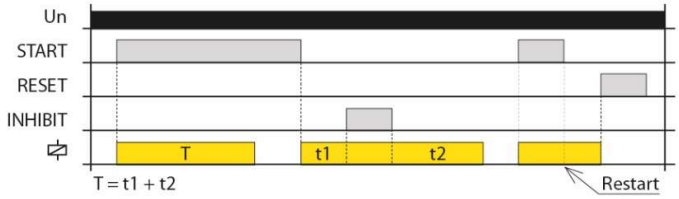
When the supply voltage is applied, the relay is open. When the START control contact is closed, the relay energizes and starts the delay time T. After the end of the timing relay is switched off. Closing control contact START during timing triggers a new time delay T - the relay closing time is thus increased.

h. PULSE GENERATOR 0.5s with Control Signal

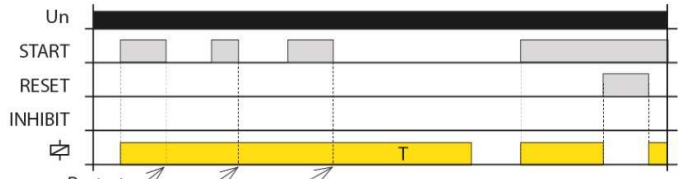


When the supply voltage is applied, the relay is open. When the START control contact is closed, starts the time delay T. After the end of the timing relay switches for the fixed time (0.5 sec).

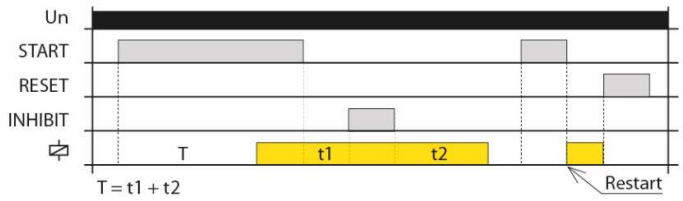
i. INTERVAL ON/OFF



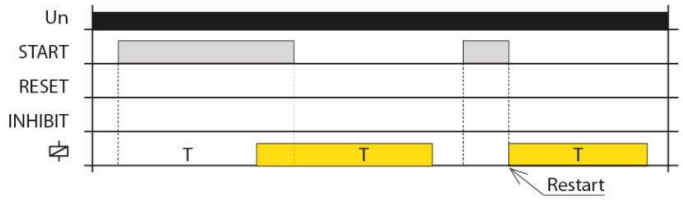
When the supply voltage is applied, the relay is open. When the START control contact is closed, the relay energizes and starts the delay time T. After the end of the timing relay is switched off. By opening the control contact start relay again closes and starts the delay time T. After the end of the timing relay is switched off.



j. ON/OFF DELAY



When the supply voltage is applied, the relay is open. When the START control contact is closed, starts the time delay T. After the end of the timing relay switches. Opening the control contact START starts a new time delay T. When the timing is complete, the relay opens.



If the START control contact is open during timing, a restart occurs - the relay closes and a new time delay T begins. When the timing is complete, the relay opens.

More accurate setting of timing for long periods of time

Example of time setting to 8 hours period:

For rough setting use time scale 1-10 s on the potentiomenter.

For fine time setting aim for 8 s on potentiometer, then recheck accuracy (using stopwatch etc).

On rough time setting, set potentiometer to originally desired scale 1-10 hours, leave a fine setting as it is.