PTRM-216TP, PTRM-216KP | Multi-function time relay

EAN code
PTRM-216TP/UNI: 8595188176033
PTRM-216KP/UNI: 8595188176026

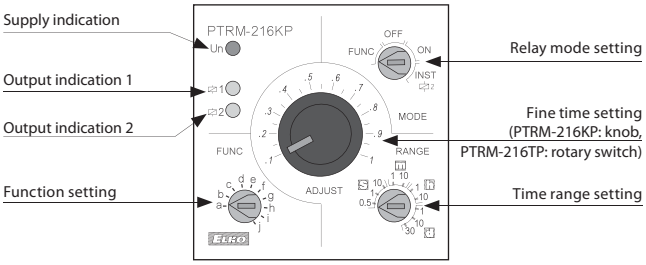
Technical parameters	PTRM-216TP	PTRM-216KP
Power supply		
Power pins:	2, 10	
Voltage range:	AC/DC 12 – 240V (AC 50 – 60Hz)	
Power input (max.):	2.5 VA / 1.5 W	
Supply voltage tolerance:	-15 %; +10 %	
Supply indication:	green LED	
Time circuit		
Number of functions:	10	
Time ranges:	50 ms - 30 days	
Time 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):	70 000 operations	
Control		
Control pins:	5 (2) - 6	
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)	4 kV AC	
supply - output 2 (8, 9, 11)	4 kV AC	
output 1 - output 2	4 kV AC	
Operating position:	any	
Mounting:	11 pin octal socket	
Protection degree:	IP40 from front panel	
Overvoltage category:	III.	
Pollution degree:	2	
Dimensions:	48x48x79mm (1.7x1.7x3.1inch)	48x48x89mm (1.7x1.7x3.5inch)
Weight:	107 g (3.77 oz)	108 g (3.81 oz)

Function

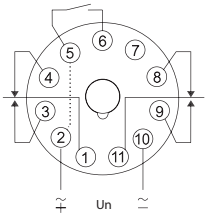
For a description of the functions on page 29.

- Multi-function time relay for universal use in automation, control and regulation or in house installations.
- Possibility to select the control element for fine time setting:
  PTRM-216KP - knob, for easy handling without the need for tools
  PTRM-216TP - rotary switch, for the possibility of using a sealable cover
- All functions initiated by the supply voltage, except for the flasher function, can use the control input to inhibit the delay (pause).
- 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.

Description

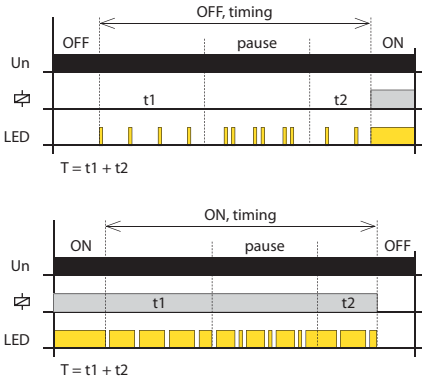


Connection



Pins 2 and 5 are internally connected.

Indication of operating states



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

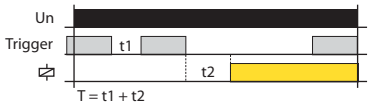
The second relay switches according to the supply voltage.
The first relay switches according to the function (a-j) set by the trimmer FUNC.

Function

a. **ON DELAY**

When the supply voltage is applied, the time delay T begins. When the timing is complete, the relay closes and this condition continues until the supply voltage is disconnected.

ON DELAY with Inhibit

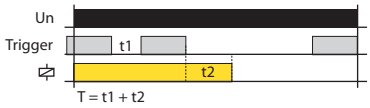


If the control contact is closed and the supply voltage is connected, the relay is opened and timing does not start until the control contact opens.
When the timing is complete, the relay closes. If the control contact is closed during timing, the timing is interrupted and continues only after the control contact opens.

b. **INTERVAL ON**

After supply voltage relay closes and starts the delay time T. After the end of the timing relay opens and this state lasts until the supply voltage is disconnected.

INTERVAL ON with Inhibit



If the control contact is closed and the supply voltage is connected, the relay will close and the timing will start only after the control contact has been opened.
When the timing is complete, the relay opens. If the control contact is closed during timing, the timing is interrupted and continues only after the control contact opens.

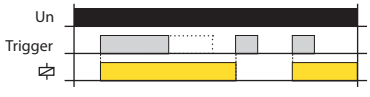
c. **FLASHER - ON first**

After supply voltage relay closes and starts the delay time T. After the end of the timing relay opens and again runs delay time T. When the timing is complete, the relay closes again and the sequence is repeated until the supply voltage is disconnected. If the control contact is closed during timing, this does not affect the operation of the cycler.

FLASHER - OFF first

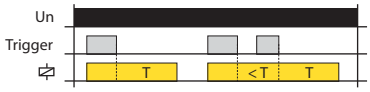
If the control contact is closed during timing; this does not aff ect the operation of the cycler.
If the control contact is closed and the supply voltage is connected, the cycler starts with a pause (relay open).

d **MEMORY LATCH**



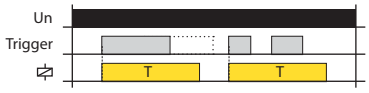
When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes. The status does not change when the control contact is opened. When the control contact is closed again, the relay opens. Each time the control contact is closed, the relay changes status.

e. **OFF DELAY**



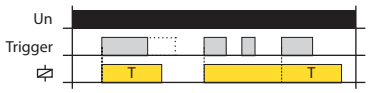
When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes. When the control contact opens, the time delay T begins. If the control contact is closed during timing, the time is reset and the relay remains closed. When the control contact opens, the time delay T starts again and opens when the relay closes.

f. **SINGLE SHOT**



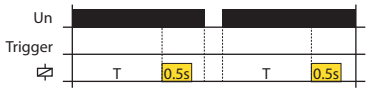
When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes and the time delay T begins. Closing the control contact during timing is ignored.

g. **WATCHDOG**



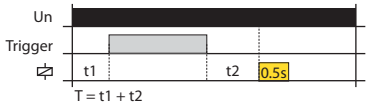
When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes and the time delay T begins. Closing the control contact during timing triggers a new time delay T - the relay closing time is thus increased.

h. **PULSE GENERATOR 0.5s**



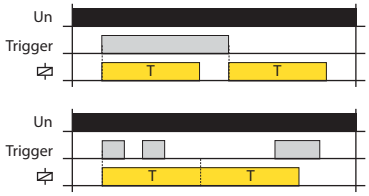
After the supply voltage has been applied, the time delay T begins.

PULSE GENERATOR 0.5s with Inhibit



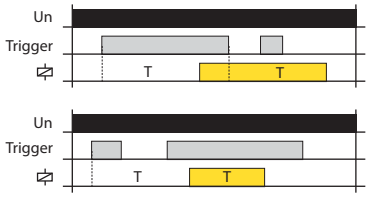
After supply voltage starts the time delay T. By closing timing of the control contact during timing is suspended. When the control contact opens, the time interval is completed and the relay closes for a fixed time (0.5s).

i. **INTERVAL ON / OFF**



When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes and the time delay T begins. When the control contact is opened, the relay closes and the time delay T begins. If the control contact is open during timing, the relay remains closed for 2T. When the timing is complete, the relay opens. Any other change of control contact status during timing is ignored.

j. **ON / OFF DELAY**



When the supply voltage is applied, the relay is open. If control contact is closed, time delay T starts. When the control contact is opened, a new time delay T begins. If the control contact is open during timing, the relay closes at the end of the timing and opens the relay after the new time delay. Any other change of control contact status during timing is ignored.