Time relay - PLUG-IN

PTRM-216TP, PTRM-216KP | Multifunction time relay with inhibit delay





EAN code PTRM-216TP/UNI: 8595188179386 PTRM-216KP/UNI: 8595188178617

Technical parameters	PTRM-216TP	PTRM-216KP
Power supply		
Power pins:	2, 10	
Voltage range:	AC/DC 12 – 240 V (AC 50-60 Hz)	
Power input (max.):	2.5 VA/1.5 W	
Supply voltage tolerance:	±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; 1 HP 240 Vac, 1/2 HP 120 Vac; PD. B300	
Breaking capacity:	4000 VA/AC1, 384 W/DC	
Switching voltage:	250 V AC/24 V DC	
Max. power dissipation:	2.4 W	
Output indication:	multifunction red LED	
Mechanical life:	10.000.000 ops.	
Electrical life (AC1):	100.000 ops.	
Control	100.000	, орз.
	5 (2) -6	
Control pins:	min. 25 ms/max. unlimited	
Impulse length:	max. 150 ms	
Reset time:	IIIdx. 13	0 1113
Other information	−20 +55 °C (−4 131 °F)	
Operating temperature:		
Storage temperature:	−30 +70 °C (−22 158 °F)	
Dielectric strength:	2.5 kV AC	
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		
12-150 V AC/DC	III.	
for supply voltage		
150-240 V AC/DC	II.	
Pollution degree:	2	
Dimensions:	48x48x79mm (1.7" x1.7" x3.1")	48x48x89mm (1.7"x1.7"x3.5")
Weight:	111 g (3.9 oz.)	108 g (3.81 oz.)
Standards:	EN 61812-1	

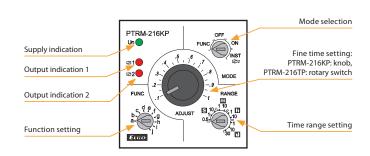
^{*} for adjustable delay <100 ms, a time deviation of \pm 10 ms applies

Function

Functions (page 23).

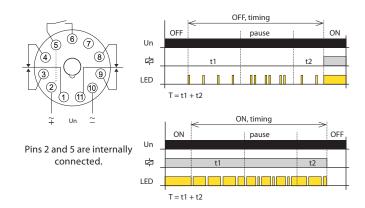
- Multifunction time relay for universal use in automation, control and regulation or in house installations.
- Possibility to select the control element for fine time setting:
 PTRM-216KP knob, for easy handling without the need for tools
 PTRM-216TP rotary switch, for the possibility of using a sealable cover.
- All functions initiated by the supply voltage, except for the flasher function, can use the control input to inhibit the delay (pause).
- Mode selection according to the set function, permanently closed, permanently open, and switching of the second output contact according to the supply voltage.
- Multifunction red LED flashes or shines depending on the operating status.

Description



Connection

Indication of operating states



Mode selection

FUNC. Settings function mode

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

OFF. Output contact open mode



ON. Output contact closed mode



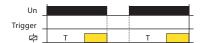


The second output contact switches according to the supply voltage. The first output contact switches according to the function (a-j) set by the trimmer FUNC.

CRM-111H, CRM-113H, CRM-121H, PTRM-216T, PTRM-216K, PTRM-216TP, PTRM-216KP

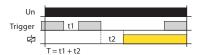
Function

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.

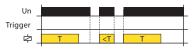
ON DELAY with Inhibit



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.

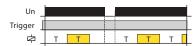
When the timing is complete, the relay opens. If the control contact is closed during timing, the timing is interrupted and continues only after the control contact opens.

c. FLASHER - ON first



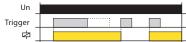
After supply voltage relay closes and starts the delay time T. After the end of the timing relay opens and again runs delay time T. When the timing is complete, the relay closes again and the sequence is repeated until the supply voltage is disconnected. If the control contact is closed during timing,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

FLASHER - OFF first



If the control contact is closed during timing; this does not affect 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



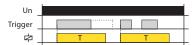
When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes. The status does not change when the control contact is opened. When the control contact is closed again, the relay opens. Each time the control contact is closed, the relay changes status.

e. OFF DELAY



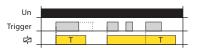
When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes. When the control contact opens, the time delay T begins. If the control contact is closed during timing, the time is reset and the relay remains closed. When the control contact opens, the time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

f. SINGLE SHOT



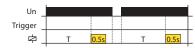
When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes and the time delay T begins. Closing the control contact during timing is ignored.

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 0.5 s



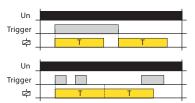
After the supply voltage has been applied, the time delay T begins. When the timing is complete, the relay closes for a fixed time (0.5 s).

PULSE GENERATOR 0.5 s 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 (0.5 s).

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.