



F&F Filipowski sp. j.  
Konstantynowska 79/81, 95-200 Pabianice, POLAND  
phone/fax (+48 42) 215 23 83 / (+48 42) 227 09 71  
www.fif.com.pl; e-mail: biuro@fif.com.pl

## PCS-506

Time relay,  
8-functions



### Do not dispose of this device in the trash along with other waste!

According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.



## Purpose

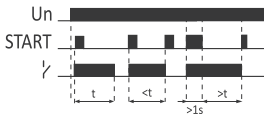
The PCS-506 time relay is used for time control in industrial and home automation systems (such as: ventilation, heating, lighting, signaling, etc.).

## Operating



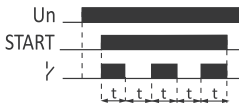
**A. Presence simulator.** When the START signal is being applied, the system turns the relay on and off at random for a period of 20 sec up to 20 min. The sequence in question is initiated by activation of the relay. After the START signal is discontinued, the system turns the relay off. The device does not respond to time range settings.

(B)



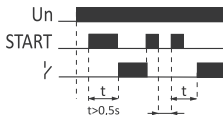
**B. Bistable relay with step automatic module.** A single pressing of the START button results in activating the relay for the preset time. A further START impulse generated during the countdown will deactivate the relay. Two START impulses applied within a time shorter than 1 sec will result in the permanent activation of the relay. The following impulse turns the relay OFF.

(C)



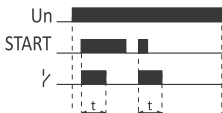
**C. Generator with a pulse duty factor of 50%** which initiates its working sequence from the moment of activation. It is active as long as START voltage is applied. Once the START signal is disconnected, the connection is broken and the device is deactivated.

(D)



**D. Lagged activation of the relay with the START signal.** When the relay is active, another START impulse will turn it OFF. The following START impulse causes a repetition of the time countdown sequence and activation of the relay. The interval between the trailing edge of the reset signal and the leading edge of the START signal, which re-initiates the countdown sequence, should be at least 0,5 sec.

(E)



**E. Generation of a single impulse of "t" time by the START signal up trailing edge.** During preset time countdown, the system does not respond to START impulses.

(F)



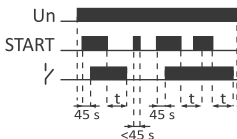
**F. Generation of a single impulse of "t" time by the START signal down trailing edge.** During preset time countdown, the system does not respond to START impulses.

G



**G. Lag in deactivation with support function enabled.** The leading edge of the START signal results in relay activation, whereas the trailing edge of the same signal triggers the time countdown. The supply of the START signal during countdown results in an extension of the cycle by another "t" time value along the trailing edge.

H

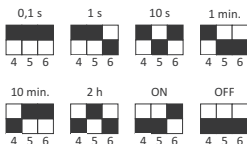


**H. Deactivation and activation lags with support function enabled.** If the START voltage is supplied for less than 45 sec, it is ignored by the system, however if it is longer, the relay is activated after the 45 sec and the preset time value is counted down with the trailing edge of the START signal. If another START impulse is applied during the countdown, then the trailing edge of this signal will result in the repeated countdown sequence (e.g. for ventilation purposes: short activation of the lighting does not turn the fan on, but if the lighting is activated for longer than the 45 sec, the fan will start).

## Working time setting

Using the time range setting knob  $T \leftrightarrow$ , set one of the selected ranges, then using the time setting knob  $T \times$ , set the selected value on a scale from 1 to 12. By time range switch set one of chosen range and by time knob set value on the scale from 1 to 12. The product of these values is equal to the working time "t" (for example:  $1 \text{ m} \times 7 = 7 \text{ min.}$ ).

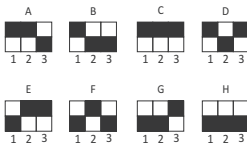
The black box in the diagram shows the position of the switch.



Time ranges

## Settings of work mode and time range

The required time range and the working mode of the relay is selected by choosing the proper combination of the switches (black field in the diagram stands for the switch position).



Features of work



PCS-506 can't work with backlit buttons.



When the power supply of the relay is switched on, the system does not react to the change of time range and working time settings.



Operation with the newly set time range and operating mode takes place after the power supply is switched off and back on.



With the power supply on, it is possible to regulate the preset time freely within the selected time range.

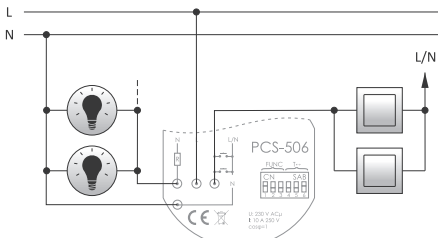
## Time ranges

<b>0,1s:</b>	0.1÷1.2 sec	<b>10m:</b>	10÷120 min.
<b>1s:</b>	1÷12 sec	<b>2h:</b>	2÷24 h
<b>10s:</b>	10÷120 sec	<b>1d:</b>	1÷12 days (24÷288 h)
<b>1m:</b>	1÷12 min.	<b>2d:</b>	2÷24 days (48÷576 h)
<b>ON</b>	position with power supply activated causes the contact to be permanently opened.		
<b>OFF</b>	position with power supply activated causes the contact to be permanently closed.		

## Mounting

1. Turn off the power supply.
2. Fix the relay on a rail in the switchboard.
3. Connect the power wires: L (phase) – brown; N (neutral) – blue.
4. Choose one of control impulse option L or N. Control buttons connected in parallel, connect between the red wire and the wire of the selected control signal option L or N).
5. Connect the controlled receiver to the black wire and the neutral wire N.
6. By code switches set work function and time range.
7. By knob set time work.

## Wiring diagram



## Technical data

power supply	195÷253 V AC
maximum load current (AC-1)	10 A
contact	1×NO
control pulse current	<1 mA
working time (adjustable)	0.1 s÷24 h
activation delay	<50 ms
power consumption	0.8 W
terminal	4×DY 1 mm <sup>2</sup> , l= 10 cm
tightening torque	0.4 Nm
working temperature	-25÷50°C
dimensions	∅55, h= 13 mm
mounting	in a flush-mounted box ∅60
protection level	IP20

## Warranty

The F&F products are covered by a warranty of the 24 months from the date of purchase. Effective only with proof of purchase. Contact your dealer or directly with us.

## CE declaration

F&F Filipowski sp. j. declares that the device is in conformity with the essential requirements of The Low Voltage Directive (LVD) 2014/35/EU and the Electromagnetic Compatibility (EMC) Directive 2014/30/UE. The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found at [www.fif.com.pl](http://www.fif.com.pl) on the product page.