



Purpose

Lagged-pulse time relay PCS-506 is devised to support the power supply of the controlled receiver for a specified period of time after decay of the control voltage, e.g. in bathroom ventilation systems in which the upkeep of the fan operation (activated along with the lighting) is required for a specified period of time after turning off the accompanying lighting.

Note!

PCS-506 not compatible with bell pushes equipped with fluorescend lamps.

Assembly

1. Take OFF the power.

- 2. Put on the relay to under plaster box.
- 3. Take ON the power: L brown cable, N blue cable.

Work time settings

By time range switch set one of choosen range and by time knob set value on the scale from 1 to 12. Product of this values egual work time "t" (e.g. t = 1m × 7 = 7 min).

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Setting the wheel regulator in the:

- * ON position with power supply activated causes the contact to be permanently opened.
- * OFF position with power supply activated causes the contact to be permanently closed.

- 4. Choose one of control control impulse option L or N. Control buttons connected in parallel connect between red cable and control cable (LorN).
- 5. Controlled receiver connect to red cable and to cable N.
- 6. By code switches set work function and time range.
- 7. By knob set time work.

Connection scheme



Note!

- * With the power supply ON, the system does not respond to time range setting modifications.
- * The newly set time range is active after the power supply has been turned OFF an ON.
- * With the power supply on, it is possible to regulate the preset time freely within the selected time range.

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Settings of work mode and time range

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



| Technical data | |
|---------------------|--------------------------------|
| power supply | 230V AC |
| current load | <10A |
| activation delay | <50msec |
| work time | 0,1sec÷24h |
| power consumption | 0,8W |
| working temperature | -25÷50°C |
| terminal | 4×DY 1mm ² , l=10cm |
| dimensions | Ø55, h=13mm |
| mounting | in flush mounted Ø60 |
| ingress protection | IP20 |

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Work functions

(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.



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.

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



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Generator with a pulse duty factor of 50% which initiates it's 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.



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.

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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.



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 count-down, 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 lilting lighting is activated for longer than the 45 sec, the fan will start).

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