

F&F Filipowski L.P. 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

# PCZ-525.4

Programmable, control timer with night break



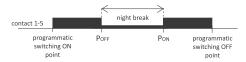
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# Purpose

The PCZ-525.4 astronomical timer is used to switch lighting or other electrical appliances on and off according to sunset and sunrise times, with the option of programming a night break, i.e. temporarily switching off the appliances to save energy.



# Features

- » Based on information about the current date and the geographical coordinates of its location, the astronomical timer automatically determines the daily programmed switch-on and switch-off points for the lighting. The exact switch-on and switch-off times are determined by calculating the position of the sun relative to the horizon.
- » Switching on/off time can be set independently on the basis of:
  - astronomical sunset and sunrise;
  - dusk and dawn;
- offset to sunrise and sunset;
  - preset hour and minute;
- » Night interval setting possible;
- » The controller operates in the same way regardless of the day of the week;
- » Automatic switching between summer and winter time;
- » Replaceable battery to maintain the timer settings during power failure:
- » NFC wireless communication providing the ability to read and save the timer configuration wirelessly using a smartphone and the free PCZ Configurator app. Writing/reading data to the timer using the NFC connection does not require the timer's power supply to be connected.
- » The PCZ Konfigurator app is designed for smartphones equipped with an NFC wireless communication module and running Android or iOS. The application enables:
  - prepare the configuration in offline mode, without the need to access or connect to the timer;

- reading and writing configurations to the timer (requires direct proximity of the smartphone to the front of the timer);
- quick programming of multiple timers with one set of settings;
- reading and writing configurations to a file;
- sharing the configuration via e-mail, network drives, instant messaging, etc.
- unambiguous identification of the connected timer and possibility to give the devices their own name;
- automatic backups of the configurations read, which, combined with each timer's unique identifier, allows quick restoration of previous settings;
- setting of time and data based on the smartphone timer (requires power connection at the time of programming);
- » Display contrast correction capability for clear LCD readouts for different viewing angles.

# Functioning

The PCZ-525.4 timer controller can operate in one of three modes:

## » Automatic mode

Automatic operation according to programmable switch-on and switch-off points of the contact.

### » Semi-automatic mode

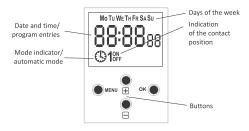
Possibility to manually switch the contact on/off during automatic operation. The change will remain in force until the next ON/OFF resulting from the automatic operation cycle.

In semi-automatic mode, the contact position is opposite to that resulting from the programme cycle (i.e. the contact is off at night and on during the day). Semi-automatic operation only works until the end of the current automatic operation cycle, e.g. entering semi-automatic mode during the day will switch the light on until the programmed switch-on time resulting from the astronomical cycle occurs. Then the timer returns to automatic operation (and the light remains on until dawn). Mode is activated or deactivated using the +/- buttons on the main level

#### » Manual mode

[ON] permanent contact activation (pos. 1-5) or [OFF] permanent contact deactivation (pos. 1-6) when AUTOMATIC MODE is deactivated.

# Display description



#### Manual

The full manual for the PCZ-525.4 timer can be downloaded from <a href="https://www.fif.com.pl">www.fif.com.pl</a> from the product sub-page or via the QR code below:



# Mobile app

The control application is available free of charge in the App Store and Google Play:





(!)

The NFC connection uses very short-range communication, which means that you need to directly touch the phone to the front of the programmed controller.

# Working mode indication

Display	Mode	Relay status
10N OFF	Automatic	ON
10N OFF	Automatic	OFF
10N SOFF	Semi-automatic	ON
10N OFF	Semi-automatic	OFF
10N OFF	Manual	ON
10N OFF	Manual	OFF

# Legend:



# Control buttons

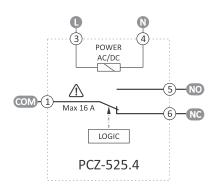
Button	Description	
MENU	Pressing the button enters the controller's configuration mode. In parameter edit mode, pressing <b>Menu</b> will drop the parameter being edited (without storing the changes made) and return to the parent menu level.	
ОК	In edit mode, pressing the button moves to edit the next setting item. If the last item is being edited, pressing the OK button will save the new parameter value, exit the edit mode and move to the higher menu level.  In the time display mode, pressing the OK button will display a quick access menu allowing the display of information about the current date and the times when the relay is switched on and off.	

# Control buttons cont.

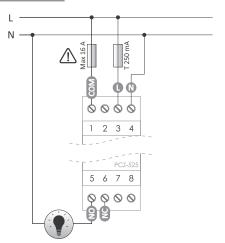
Button	Description	
+ (Up)	In automatic mode, when the button is pressed, the relay switches to the opposite state and transitions to a semi-automatic state. In edit mode, pressing the button increases the value of the edited parameter by 1. If the button is pressed for a long time, the value of the parameter will cyclically increase by 1. In manual operation mode, pressing the button will permanently switch the contact (ON -> OFF or OFF->ON).	
_ (Down)	In automatic mode, when the button is pressed, the relay switches to the opposite state and transitions to a semi-automatic state. In edit mode, pressing the button decreases the value of the edited parameter by 1. If the button is pressed for a long time, the value of the parameter will decrease cyclically by 1. In manual operation mode, pressing the button will permanently switch the contact (ON -> OFF or OFF->ON).	

- 1. Turn off the power.
- 2. Install the timer on the rail in the distribution box. 3. Connect the power cables according to the diagram.
- 4. Connect receivers according to the diagram.
- 5. Set the correct date and time. 6. Set the software configuration of the timer.

# Controller diagram



# Wiring diagram



- 1 relay COM common contact
- 3 L power supply
- 4 N power supply
- 5 relay NO contact (normally open)
- 6 relay NC contact (normally closed)

# Technical data

power supply	24÷264 V AC/DC
maximum load current (AC-1)	16 A
contact	separated 1×NO/NC
backup time timer operation	6 years*
battery type	2032 (lithium)
backup time display operation	none
accuracy of the timer	1 s
error time	±1 s/ 24 h
power consumption	1.5 W
terminal	2.5 mm <sup>2</sup> screw terminals (cord)
	4.0 mm <sup>2</sup> screw terminals (wire)
tightening torque	0.5 Nm
working temperature	-20÷50°C
dimensions	2 modules (35 mm)
mounting	on TH-35 rail
ingress protection	IP20

<sup>\*</sup> Battery life depends on operating conditions and how long the timer is powered by battery only. Low ambient temperature greatly reduces the life of the battery.

## 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 L.P. declares that the device is in conformity with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.

The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found at <a href="www.fif.com.pl">www.fif.com.pl</a> on the product page.

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