



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-521.4 Plus

Programmable
control timer
1-channel, weekly



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 single-channel, programmable PCZ-521.4 Plus control timer is used to control the timing of devices in home or industrial automation systems according to an individual time schedule set by the user. The timer switches the controlled electrical circuit on and off at programmed times in cycles: daily, weekly, on working days (Mon-Fri) or at weekends (Sat-Sun).

Features of the timer

- » Ability to work in automatic mode (according to a preset time schedule) or manual mode.
- » 500 memory cells allowing 500 individual commands to be programmed.
- » A single command from the controller defines:
 - Relay action (ON/OFF);
 - Hour and minute at which relay action will be performed;
 - Repeat cycle: daily, on a selected day of the week, every day of the week, on working days (Mon-Fri) or weekends (Sat-Sun).

- » Automatic switching between summer and winter time;
- » Possibility of connecting an external control button;
- » Replaceable battery to save timer settings in case of power failure;
- » NFC wireless communication to read and save timer settings wirelessly using a smartphone and the free PCZ configurator app. Saving/reading data to the timer via NFC connection does not require the timer to be connected to a power source.
- » The PCZ Configurator app is designed for smartphones equipped with an NFC wireless communication module and running on Android or iOS. The app allows you to:
 - Prepare configurations offline, without the need for access or a connection to the timer;
 - Read and save configurations to the timer (requires the smartphone to be held directly in front of the timer);
 - Quickly programme multiple timers using a single set of settings;
 - Read and save configurations to a file;
 - Sharing configurations via email, network drives, instant messaging, etc.
 - Unambiguous identification of the connected timer and the ability to give devices their own names;
 - Automatic backup of read configurations, which, combined with the unique identifier of each timer, enables quick restoration of previous settings;
 - Setting the time and data based on the smartphone clock (requires power connection at the time of programming);
- » Relay status memory restoring the last relay status after power failure and return;
- » Possibility of correcting the display contrast to obtain a clear LCD reading for different viewing angles.

Functioning

The PCZ-521.4 Plus timer controller can operate in one of the three modes of operation:

» **Automatic mode**

Operation in automatic mode consists in automatic processing of all programmes stored in the controller's memory. When the time stored in the programme is reached, a relay action is executed (on/off), which is maintained until the next programme execution starts. The programmes are executed in the order they are arranged in time, not in the order they are stored in the timer's memory. When the power is switched on, the timer automatically finds and executes the programme that should be executing at the moment.

» **Semi-automatic mode**

Semi-automatic mode means that the automatic mode is temporarily interrupted and the relay contact can be manually switched to the opposite position. Operation of the timer in semi-automatic mode is signalled by blinking of the timer dial on the controller display. Operation in semi-automatic mode is interrupted when the next operating programme is activated, after which the controller returns to automatic mode. Switching to semi-automatic mode is performed by pressing the +/- button on the controller's front or the external button during operation in automatic mode.

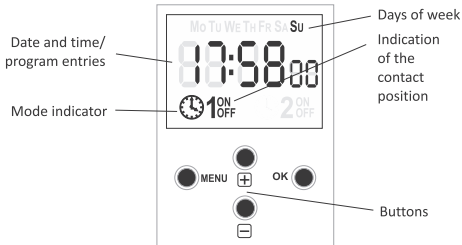
» **Manual mode**

In manual mode, the list of programmes stored in the controller memory is ignored and switching on/off is carried out manually by the user. In manual mode, the relay status can be changed by briefly pressing the +/- button on the front of the controller or external button.



The status of a relay that is in manual mode is restored when the power supply is restored.

Display description



Manual



Full manual for the PCZ-521.4 Plus can be downloaded from the product page on www.fif.com.pl or by scanning the QR code below:



Mobile app

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

Application available on:



<https://apps.apple.com/pl/app/f-f-pcz-konfigurator/id6446887053?l=pl>

Application available on:



<https://play.google.com/store/apps/details?id=pl.com.fif.clockprogramer>



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.

Operation mode indication

Display	Mode	Relay status
 1 ON OFF	Automatic	ON
 1 ON OFF	Automatic	OFF
 1 ON OFF	Semi-automatic	ON
 1 ON OFF	Semi-automatic	OFF
 1 ON OFF	Manual	ON
 1 ON OFF	Manual	OFF

Legend:

	ON
	Blinks/pulses
	OFF

Control buttons

Button	Description
MENU	Press the button to enter the controller configuration mode. In parameter editing mode, pressing Menu abandons the edited parameter (without remembering the changes made) and returns to the parent menu level.
OK	Press the button in edit mode to edit the next setting item. If you are editing the last item, pressing the OK button will save the new parameter value, exit the edit mode and go to the parent menu level. Pressing the OK button in the time display mode will bring up a quick access menu allowing you to view information about the current date, details of the currently running program, and access to operating time statistics.

Control buttons cont.

Button	Description
+ (Up)	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 parameter value will cyclically increase by 1. In manual operation mode, pressing the button will switch the contact permanently (ON -> OFF or OFF->ON). In automatic operation, pressing the button will switch the relay to the opposite state and the controller will switch to semi-automatic operation.
- (Down)	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 parameter value will cyclically decrease by 1. In manual operation mode, pressing the button will switch the contact permanently (ON -> OFF or OFF->ON). In automatic operation, pressing the button will switch the relay to the opposite state and the controller will switch to semi-automatic operation.

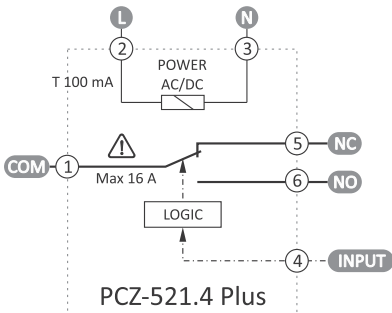
The external pushbutton can operate in 2 modes:

- » In **manual operation mode**, pressing the button will permanently switch the contact;
- » In **automatic operation mode**, pressing the button will switch to the opposite state and the controller will switch to semi-automatic operation.

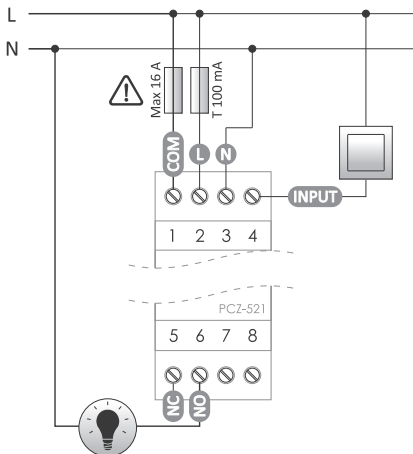
Mounting

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. Make software configuration of the timer.

Controller diagram



Wiring diagram



- 1 COM relay power supply
- 2 L power supply
- 3 N power supply
- 4 control input (triggered by L/N/+ level)
- 5 NC contact (normally closed)
- 6 NO contact (normally open)

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
number of program memory cells	500 (500 individual commands)
power consumption	1.5 W
terminal	2.5 mm ² screw terminals (cord)
	4.0 mm ² 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

* 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 www.fif.com.pl on the product page.