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PCZ-525.4 Plus

Programmable,
control timer
with night break

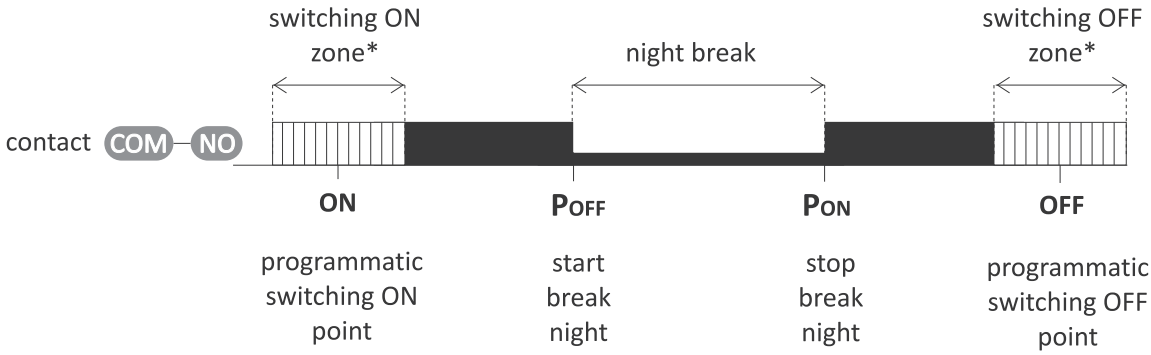
5 902431 678030

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 PCZ-525.4 Plus astronomical timer is used to switch lighting or other electrical devices on and off according to the daily astronomical times of sunrise and sunset, calculated automatically based on the current date and the location of the controller. It is also possible to enter a fixed switch-on/switch-off time and define a night-time break during which the lighting will be switched off.

In combination with an external brightness sensor (e.g. AZ-Plus probe), the timer allows the switch-on/switch-off time to be adjusted depending on the actual brightness level.



(*) Requires an external Probe Plus brightness sensor

Timer features

» 1-channel astronomical timer with night break;
» Automatic transition between summer and winter time (with the option to block the function in case of a change in legislation);
» Possibility to connect an external brightness sensor to correct the switching on/off time of the lighting;
» Possibility of connecting an external button for manual control of the timer;
» Backlit LCD display for timer configuration, time and operating status indication;
» NFC wireless communication for remote timer configuration using Android and iOS smartphones and tablets equipped with an NFC communication module;
» Free PCZ Konfigurator application enabling:
– offline timer configuration (without the need to connect to the timer);
– coordinate settings by selecting a defined location (coordinate code), directly indicating the location on a map on your phone or copying the current position recorded by the phone's GPS;

– reading and saving configurations to the controller;
– quick programming of multiple controllers using a single configuration;
– reading and saving configurations to a file;
– sharing configurations via email, network drives, etc.
– unique identification of the connected timer and the ability to assign custom names to devices;
– automatic backup of configurations; in conjunction with the unique identifier of each timer, you can easily restore a previous configuration;
– setting the time and date based on the timer in your phone.

» Predefined switch-on and switch-off times for lighting:
– sunrise and sunset – the moment when the sun crosses the horizon;
– civil dawn and dusk – the moment when, according to legal regulations, lighting, e.g. street lighting, should be switched off/on;

» Possibility to set your own switch-on/switch-off time interpreted as a shift in sunrise/sunset by:
– set time (within ±180 min.);
– set position of the centre of the sun (within ±15°);

» Possibility to set the width of the time zone (relative to the programmed switch-on/switch-off point) in which the switch-on time will be determined by the brightness level measured by an external brightness sensor;

» Location table – the timer memory contains the geographical coordinates of over 1,500 locations in 51 countries around the world, allowing you to precisely select the location of the timer and ensure high accuracy in calculating the position of the sun;

» Preview of switch points, disconnection points and location information - if the timer is operating in automatic mode, pressing the Up/Down buttons in date preview mode will display information about the current time, the actual relay activation and deactivation times, the set location (geographical coordinates are displayed) and the UTC time zone;
» LCD display configuration – possibility to set the backlight level (separately for standby mode and for when the button is pressed) and display contrast;
» Relay status memory – the relay status in manual mode will be saved in the timer's permanent memory when the power supply is lost and restored when the power supply is restored;
» Replaceable 2032 battery – the controller is equipped with a battery status indicator that keeps the timer running in the event of a power failure. When the battery is low, the user will be notified that it needs to be replaced;
» Timer frequency correction – the timer can be freely accelerated/decelerated. For example, if over time the controller starts to lose 5 seconds per month, this deviation can be corrected by programming.

Functioning

The PCZ-525.4 Plus 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.

For correct operation in automatic mode, it is necessary to set the location, date and time correctly.

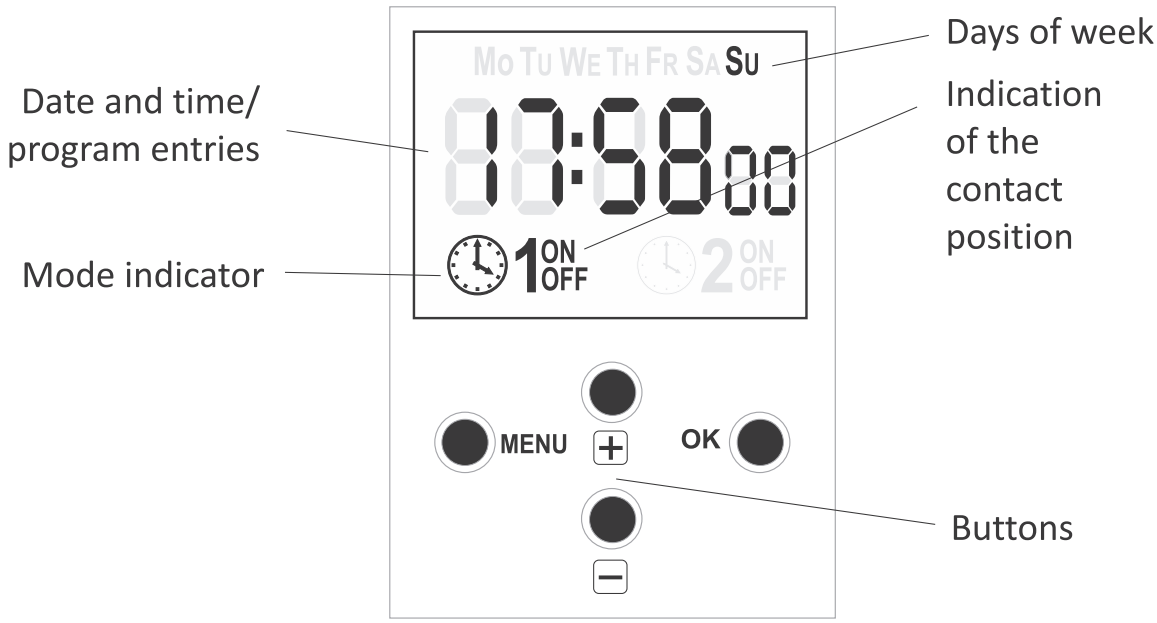
» **Semi-automatic mode**
Possibility to manually switch the contact on/off during automatic operation. The change will remain in force until the next ON/OFF resulting from the automatic operation cycle.

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.

The relay status in manual mode is stored in the timer's non-volatile memory. This means that if the power supply is lost and then restored, the timer will restore the relay status to the state it was in before the power failure.

Display description



Manual

The full manual for the PCZ-525.4 Plus timer can be downloaded from www.fif.com.pl 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:

Application available on:

Available on the App Store

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

Application available on:

ANDROID APP ON Google play

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.

Working mode indication

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

Legend:

	ON
	Blinks/pulses
	OFF

Control buttons

Button	Description
MENU	Pressing the button enters the controller's configuration mode. In parameter edit mode, pressing **Menu** will drop the parameter being edited (without storing the changes made) and return to the parent menu level.
OK	**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).

The external pushbutton can operate in 2 modes:

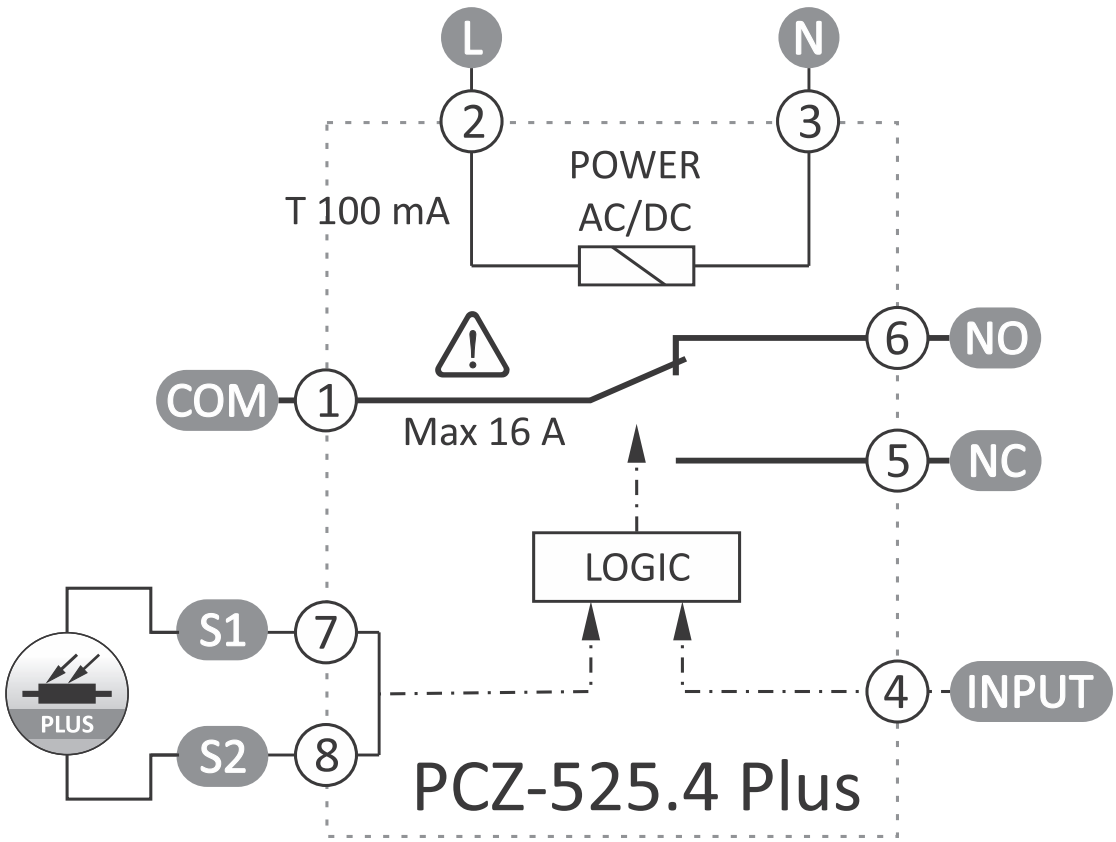
» In **manual operation mode**, pressing the button will permanently switch the contact;

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

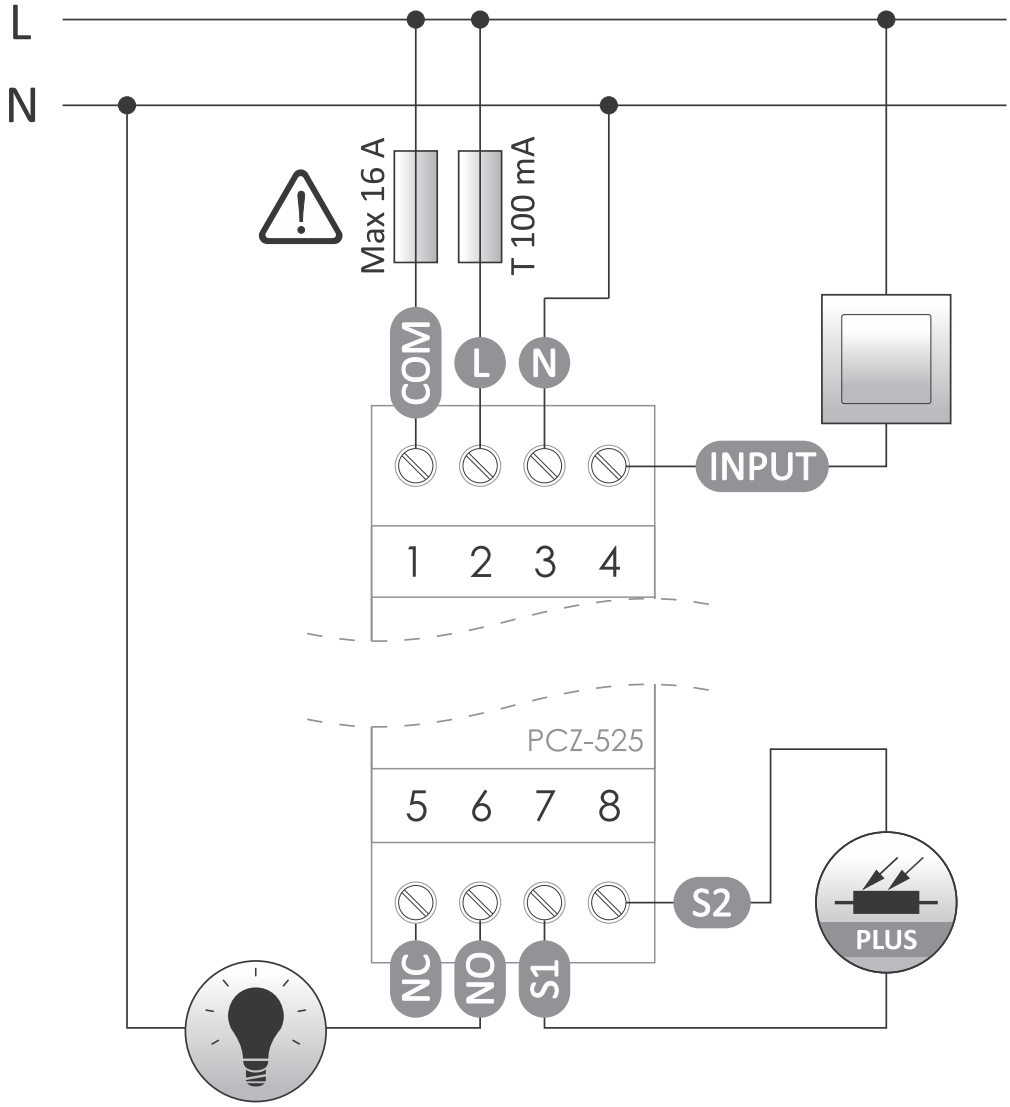
Mounting

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. Set the software configuration of the timer.

Controller diagram



Wiring diagram



1 relay – COM common contact
2 L power supply
3 N power supply
5 relay – NC contact (normally closed)
6 relay – NO contact (normally open)
7 brightness sensor – S1 input
8 brightness sensor – S2 input

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 mm² screw terminals (cord) 4.0 mm² 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.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