

PY512

Receiver 8ch

Elmes Elektronik
(CH8HR)

User manual



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Manufacturer reserves the right to make modifications in order to improve device operation.

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1 Description

PY512 is an 8-channel radio receiver designed for installation in closed rooms. Each channel, which works as a relay, can work in one of two modes. To work with PXM devices one should set monostable (momentary) mode.

The receiver has 8 NO (normally open) or NC (normally closed) outputs galvanically separated and 8 LEDs indicating output activation. The device has the option of signaling the battery discharge in PTX, GBX, CTX, RP transmitters and opening the housing (anti-tampering function) and the lack of communication with PTX, GBX, CTX4H detectors.

Receiver 8ch works with all transmitters and remote controls from Elmes Elektronik operating in the 433.92MHz band (also with the RP501 transmitter). The transmission is coded and is based on a variable code, which ensures high security when using wireless systems. Each transmitter has an individual code, and the receiver only reacts to signals that are received from the transmitters stored in its memory (up to 40 buttons).

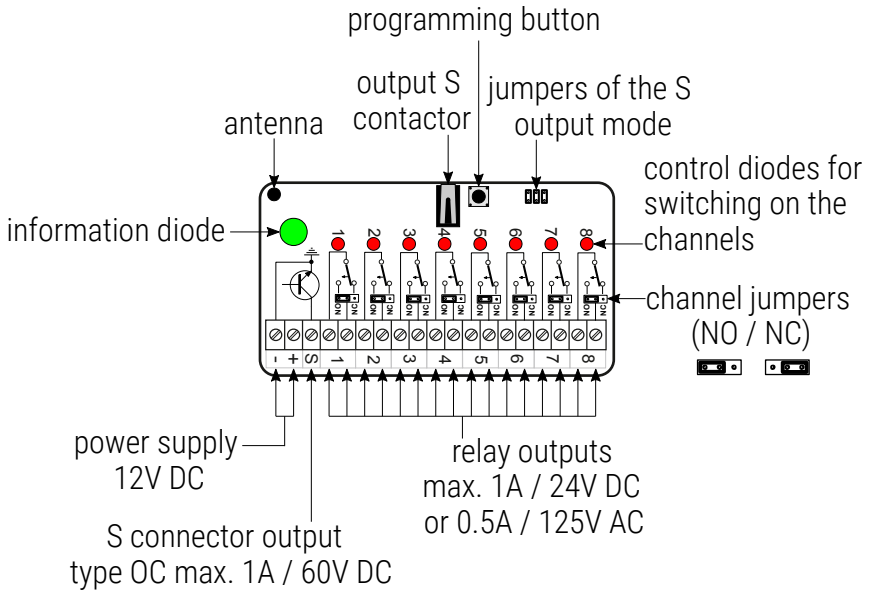
The receiver is powered by 12V DC safe voltage, and its plastic housing has been designed in such a way that can be mounted on the wall.

2 Safety conditions

PY512 is a device powered with safe voltage 12V DC; however, during its installation and use the following rules must be strictly observed:

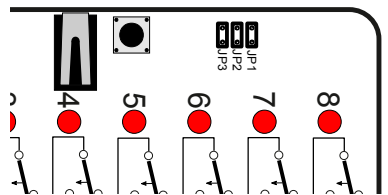
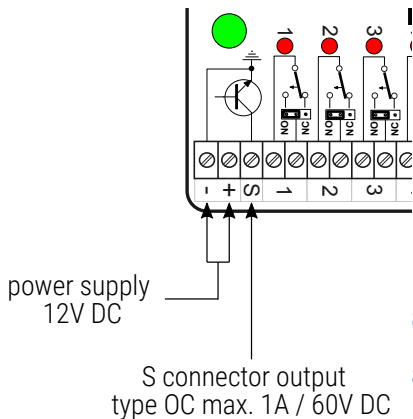
1. The device may only be connected to 12V DC with current-carrying capacity compatible with technical data.
2. All the conductors should be protected against mechanical and thermal damage.
3. In the event of damaging any conductor, it should be replaced with a conductor of the same technical data.
4. All repairs and wiring connections may only be carried out with the power supply disconnected.
5. PY512 should be strictly protected against contact with water and other liquids.
6. All sudden shocks, particularly dropping, should be avoided.
7. The device cannot be turned on in places with humidity exceeding 80%.
8. The device cannot be used in places with temperature lower than 0°C or higher than +40°C.
9. Clean with damp duster only.

3 Connectors and control elements



4 S output mode

Control of the S output operation is possible by means of various configurations of this output jumpers.



NOTE! The tamper output, which is activated after opening the enclosure, is by default assigned to channel 8.

Possible configurations and behaviors of the S output are presented in the table below (used as a buzzer):

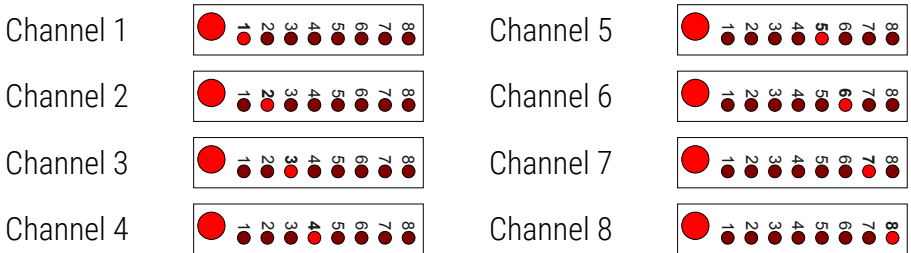
	JP2 shorted	JP2 open
JP1 shorted	two pulses when switching on any channel, one when switching off	Short to ground when the battery is low. When JP3 additionally open – no communication with the transmitter
JP1 open	impulse only when switching 1 channel	

5 Adding transmitter to memory

1. Press the programming button <2s – the information LED will light up red and the first channel will switch on.



2. Press the programming button to select the channel to which the transmitter will be assigned.



3. Hold the programming button >2s until the indicator light turns green.



4. Depending on the type of transmitter to be entered:
 - **remote control** – press the remote control button twice. For multi-channel remote controls (e.g. 4 channels), using for example the second button will introduce the first two buttons under the current and previous channel of the receiver, and the third and fourth buttons on the remote will be inactive.
 - **PTX50 infrared detector** – with a hand movement, trigger the detector to transmit twice (channel 1 must be set in the detector first)
 - CTX3H and CTX4H reed switch – briefly move the magnet twice, or open and close the door or window twice, where the CTX is mounted
 - **RP501 radio notification transmitter (without radio link control mode)** – set the desired operating mode in the transmitter and then activate the transmitter by opening the input, e.g. D2. Channels D1 and D2 will be assigned to two successive channels of the receiver, and channels D3 and D4 will remain inactive.
4. The signaling diode will confirm the correct entry of the transmitter into the receiver's memory by slowly flashing green.

NOTE! Before adding the receiver, turn off all channels on the receiver.

NOTE! A maximum of 40 keys can be assigned to the receiver.

NOTE! Exit programming after 30 seconds of inactivity. Errors are signaled by rapid flashing of the LED and exiting programming.

6 Modes of operation

Each channel can work independently in one of two operating modes. In the case of cooperation with PXM controllers, it is recommended to use the monostable (momentary) mode.

- **bi-stable** – each time you press the key, the status changes to the opposite
- **monostable (momentary)** – pressing the key activates the relay for a programmed time in the range of 0.5s – 4h (for more information see section 6.1. Changing channel mode)

6.1 Changing channel mode

1. Press the programming button for more than 2s, but less than 8s – the information LED will light up red and then green. First receiver channel will be switched on.



2. Use the programming button to select the receiver channel in which the mode is to be changed.
3. Press the programming button on the receiver for >2s until the receiver LED switches to red.



4. After selecting the channel, press the programming key – the information LED will glow green.



5. After the required sustaining time has elapsed (max. 4 hours), press the button again – the information LED will light up in red, and after 2s it will start blinking green, which confirms that the procedure has been carried out correctly.

NOTE! To set the channel to *bi-stable* mode, after step 4 press the programming button 3 times at intervals of <2s.

NOTE! Exit programming after 30 seconds of inactivity. Errors are signaled by rapid flashing of the LED and exiting programming.

7 Deleting the stored keys

Press the programming button on the receiver >8s (the information LED will light up red and then green) until the LED starts flashing and then release the button. The blinking of the diode confirms the correct execution of the procedure of deleting all memorized transmitters. Channel modes remain unchanged.

It is possible to delete only one remote control from the receiver's memory, provided that the user has physical access to this remote control. To do this, start the procedure of programming the remote control to the memory (5. Adding transmitter to memory). Follow steps 1, 2 and 3, and in step 4 send the first transmission from the removing remote control, and the second transmission from any other.

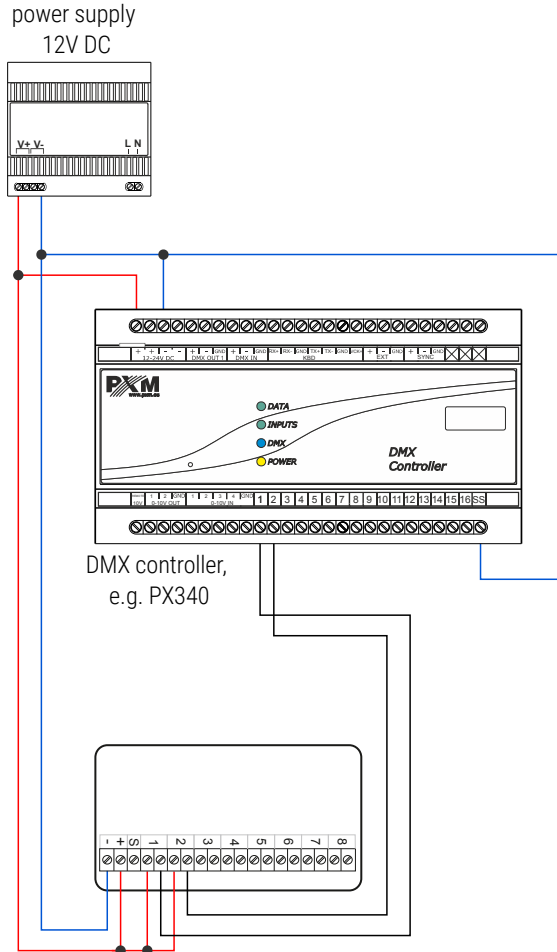
For multi-channel pilots, in step 4 it is enough to press a button different the first time than the second.

The information diode will blink red and indicate an error – it will confirm deleting the remote control from the memory.

8 Connection scheme

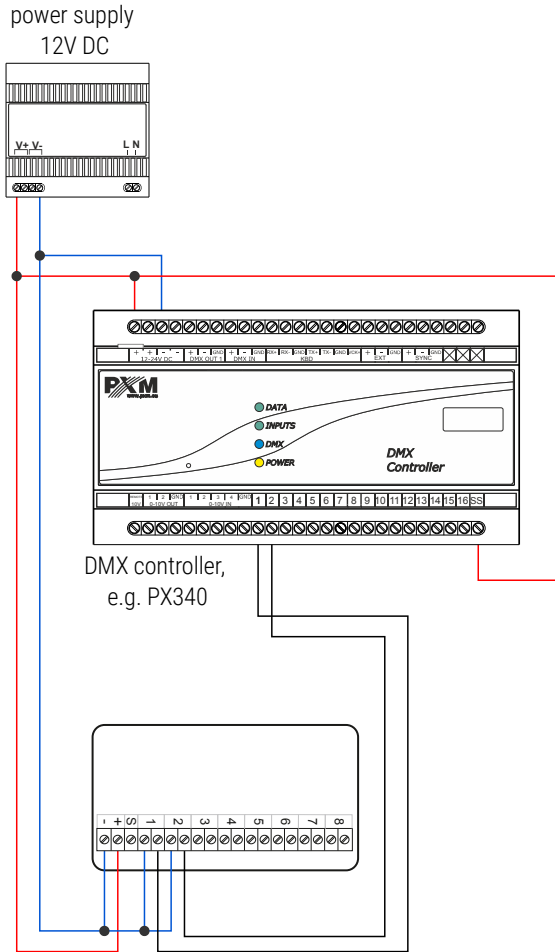
Connection PY512 with PX340 / PX345 / PX710 controller to digital inputs

(sink in) – “joint plus”

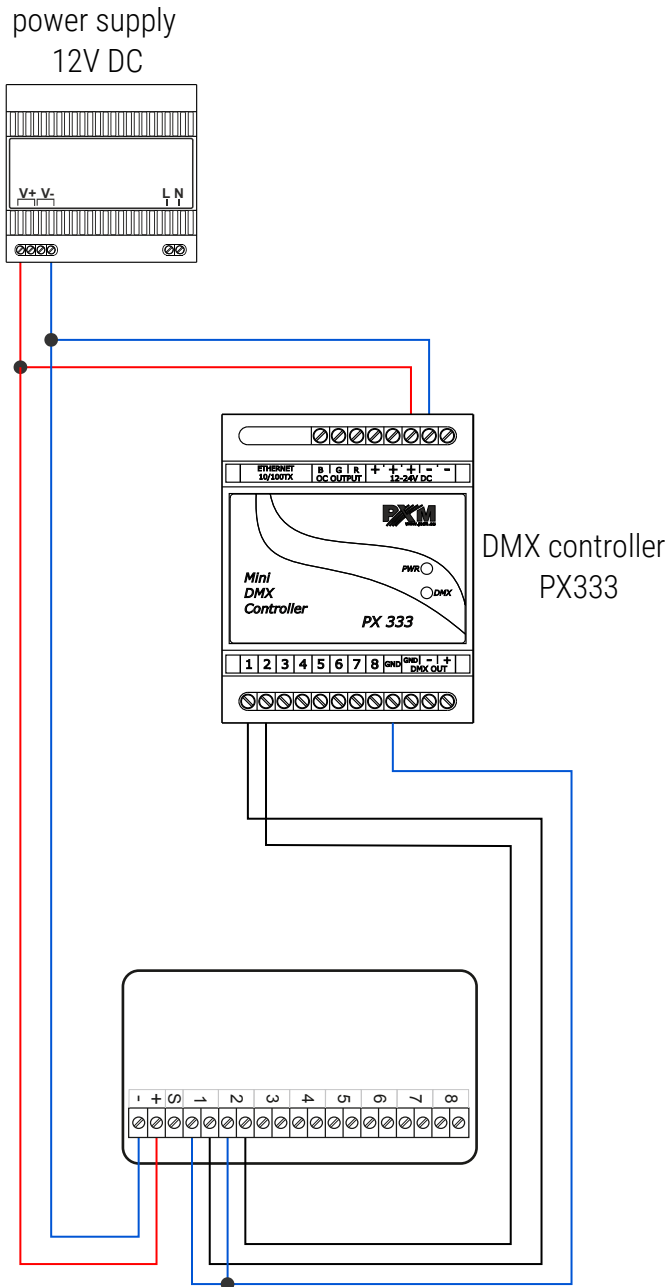


Connection PY512 with PX340 / PX345 / PX710 controller to digital inputs

(source in) – “joint mass”



Connection PY512 with PX333 controller



9 Technical data

type	PY512
memory capacity	40 buttons
frequency	433.92MHz
coding	variable code
cooperation	any transmitter from Elmes Elektronik
mounting	surface
number of relays	8
modes of operation	2
monostable time range	0.5s – 4h
relay output	max. 1A / 24V DC or max. 0.5A / 125V AC
tamper output	OC type max. 1A / 60V DC
current consumption	max. 180mA
weight	0.1kg
dimensions	width: 96mm height: 63mm depth: 28mm