ledix

SCAN

the technical data

3-channel radio flush receiver

ROP-04

Mounting in a Ø60 junction box

Mounting indoor only

Co-operation with EXTA FREE transmitters

ROP-04 receiver is designed to carry out simple control functions in LED diode systems supplied with 10 ÷ 14 V DC. In connection with EXTA FREE system transmitters, it enables the realisation of the switch on/switch off function, the monostable mode, the bistable and time modes. ROP-04 has 3 independently controlled outputs realised on MOSFET transistors. The outputs are designed for a direct connection of LED diode products.

Characteristic features:

- cooperation with wireless EXTA FREE system transmitters,
- independent control of up to three receivers in the following modes: switch on/switch off, monostable, bistable, time,
- 3 MOSFET type transistor outputs with a maximum capacity of 2,5 A / output,
- possibility of a direct connection of 10 ÷ 14 V DC power supply LED products to the receiver's outputs,
- wide operation range (up to 230 m outdoors),
- small dimensions - suitable for mounting in a typical Ø60 junction box,
- low power consumption in the standby mode (0,22 W) - the receiver is used to a continuous operation.

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10÷14 V DC / 0,22 W; IP20
weight: 25 g

CET Lighting Sp. z o.o. declares that the equipment complies with the principal requirements and other applicable rules of the RTTE Directive.

The symbol means selective collecting of electrical and electronic equipment. It is forbidden to put the used equipment together with other waste.

Declaration of Conformity is on **www.ledix.pl**

ROP-04 ENG Ver. 01

10÷14VDC

ledix

3-channel radio flush receiver

ROP-04

www.ledix.pl

DESCRIPTION

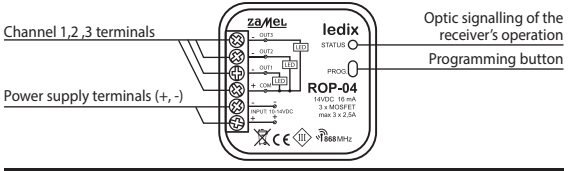
ROP-04 receiver is designed to carry out simple control functions in lighting installations equipped with LED diodes. This device in connection with any wireless EXTA FREE (www.extafree.pl) system transmitter enables the realisation of the switch on/switch off function, the monostable mode, the bistable and time mode independently for every channel. ROP-04 is designed to a direct cooperation with any 10 ÷ 14 V power supply LED diode lighting. The receiver has three MOSFET type transistor outputs with a maximum capacity of 2,5 A. Small dimensions of the casing allow for a direct mounting of the receiver in the Ø60 mm junction box. The product is characterised by low power consumption. Features of the controller:

- cooperation with wireless EXTA FREE system transmitters,
- realisation of the control function in 10 ÷ 14 V power supply LED diode lighting installations,
- 3 MOSFET type transistor outputs - maximum capacity of 2,5 A / output,
- the possibility of independent control of three circuits,
- multiplicity of operation modes: switch on / switch off, monostable, bistable, time,
- wide operation range (up to 230 m outdoors),
- a possibility to increase the operation range by using RTN-01 retransmitter,
- low power consumption in the standby mode (0,22 W) - a device designed for continuous operation.

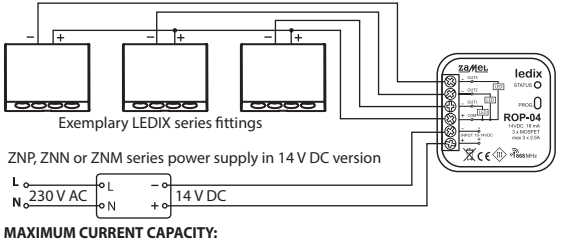
TECHNICAL DATA

Nominal supply voltage:	10 ÷ 14 V DC
Nominal power consumption:	0,22 W
Number of channels:	3 x MOSFET
Maximum current in the channel:	2,5 A
Modes:	Switch on/switch off, Monostable, Bistable, Time
Control:	EXTA FREE system transmitters
Radio transmission:	868,32 MHz
Transmission method:	One-way without confirmation
Coding:	Yes – transmission with addressing
Maximum number of transmitters:	32
Range:	Up to 230 m in the open area
Time adjustment:	1 s ÷ 18 h
Ambient temperature range:	-10 ÷ +55 °C
Mounting:	In a Ø60 junction box
Casing protection degree:	IP20
Protection class:	III
Dimensions:	47,5 x 47,5 x 20 mm
Weight:	25 g
Reference standard:	PN-EN 60669; PN-EN 60950; PN-EN 61000

APPEARANCE



DIAGRAM



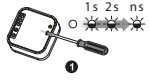
MAXIMUM CURRENT CAPACITY:
Up to 25 W for LED diode products supplied with 10 V
Up to 30 W for LED diode products supplied with 12 V
Up to 35 W for LED diode products supplied with 14 V

MOUNTING

CAUTION ! The device is designed for single-phase installation and must be installed in accordance with standards valid in a particular country. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the service manual and the device functions.

1. Disconnect power supply by the phase fuse, the circuit-breaker or the switch- disconnector combined to the proper circuit.
2. Check if there is no voltage on connection cables by means of a special measure equipment.
3. Connect the power supply to 230 V AC.
4. Connect the output cables with appropriate receiver's cables in accordance with the connection diagram.
5. Mount the controller in the Ø60 junction box.
6. Switch on the power supply from the mains.
7. Add selected transmitters to the receiver (description in the TRANSMITTERS' PROGRAMMING section) and check if they work properly.

TIME PROGRAMMING FOR A SELECTED CHANNEL

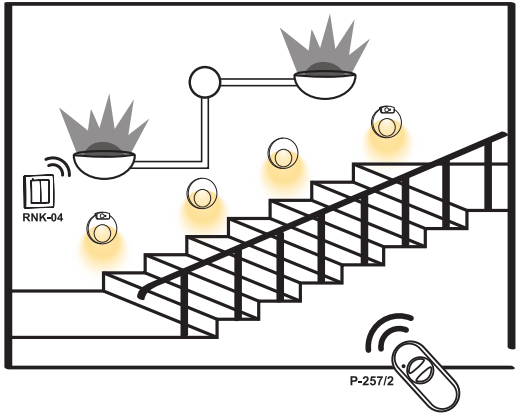


Press PROG push-button of ROP-04 device and then release it. LED red diode switches off and then switches on (the signal pulsates).
Every LED diode pulse equals 1 second.

After the adjusted time is finished (the number of LED red diode flashes) press PROG push-button and then release it - TIME IS ADDED

Maximum time is 18 hours hours for every channel.

APPLICATION



Wall lamps and standard LEDIX series LED fittings are connected to the ROP-04 receiver. 4-channel button radio transmitter RNK-04 and a portable remote control P-257/4 cooperate with the receiver. The wall lamps are switched on in time mode (staircase function) and LEDIX fittings in the switch on / switch of mode.

OPERATION

The device can operate in five modes for every channel:

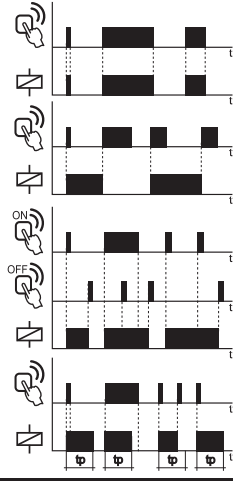
MONOSTABLE
the relay operates only while pressing transmitter's push-button.

BISTABLE
(one push-button) the device changes the relay status cyclically always after pressing the same push-button.

SWITCH ON
the device switches on after pressing the push-button.

SWITCH OFF
the device switches off after pressing the push-button.

TIME
the device switches off according to the adjusted time (tp), but it may be switched off before the adjusted time finishes. Default settings - 15 seconds.



CAUTION! The adjusted time can not be deleted.

OPERATION TABLE

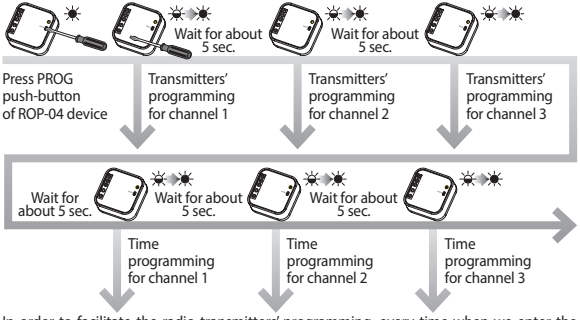
Symbol	RNK-02	RNK-04	P-256/8	P-257/2	P-257/4	RNM-10	RNP-01	RNP-02	RNL-01	RTN-01	RCR-01	RTI-01	RXM-01	P-260
ROP-04	200	200	250	200	200	250	180	180	180	200	180	180	250	-

CAUTION: The given range concerns open area - an ideal condition without any natural or artificial obstacles. If there are some obstacles between a transmitter and a receiver, it is advisable to decrease the range according to: bricks: from 10 to 40 %, wood and plaster: from 5 to 20 %, reinforced concrete: from 40 to 80 %, metal: from 90 to 100%, glass: from 10 to 20 %. Over- and underground medium and high electrical power lines, radio and television transmitters, GSM transmitters set close to a device system have also a negative influence on the range.

RADIO TRANSMITTERS PROGRAMMING

An exemplary programming procedure with the use of P-257/2 remote control. The procedure for the rest of radio EXTA FREE transmitters is analogous. **CAUTION: Every transmitter can cooperate with ROP-04 in a different mode, depending on how they were added to the device. One transmitter can be added during one programming cycle. Full memory is signalled with pulsating LED red diode.**

Transmitters and time programming is done in a sequence:



In order to facilitate the radio transmitters' programming, every time when we enter the programming mode of a selected channel (or time adjustment in time mode) the load connected to that channel is switched on. The channel switch on is connected with LED red diode lighting (the signal is constant).

MONOSTABLE mode (for a selected channel):

Press the transmitter's push-button for a longer time.

Press PROG push-button of ROP-04 device for a longer time until LED red diode switches on (constant signal). Next release PROG push-button

Release the transmitter's push-button. LED red diode switches on (first the signal pulsates, next the signal is constant).

Press the same transmitter's push-button and release it. LED red diode switches on (the signal pulsates) and next it switches off - THE TRANSMITTER IS ADDED.

BISTABLE mode (for a selected channel):

Press PROG push-button of ROP-04 device for a longer time until LED red diode switches on (constant signal). Next release PROG push-button

Press the transmitter's push-button for a longer time. LED red diode switches on (first signal pulsates, next the signal is constant)

Press and release the same transmitter's push-button. LED red diode switches on (the signal pulsates) and next it switches off - THE TRANSMITTER IS ADDED

SWITCH ON/SWITCH OFF mode (two push-buttons for a selected channel):

Press PROG push-button of ROP-04 device for a longer time until LED red diode switches on (constant signal). Next release PROG push-button

Press and release the first transmitter's push-button. LED red diode switches on (first the signal pulsates, next the signal is constant)

Press and release the second transmitter's push-button. LED red diode switches on (the signal pulsates) and next it switches off - THE TRANSMITTER IS ADDED

TIME mode (one push-button for a selected channel):

Press PROG push-button of ROP-04 device for a longer time until LED red diode switches on (constant signal). Next release PROG push-button

Press and release transmitter's push-button. LED red diode switches on (first the signal pulsates, next the signal is constant)

Press and release the same transmitter's push-button. LED red diode switches on (the signal pulsates) and next it switches off - THE TRANSMITTER IS ADDED

RADIO TRANSMITTERS DELETION

Press PROG push-button of ROP-04 device for a longer time.

After 5 seconds LED red diode switches on (the signal pulsates) and then it switches off.

Release the push-button in ROP-04 - MEMORY IS DELETED.