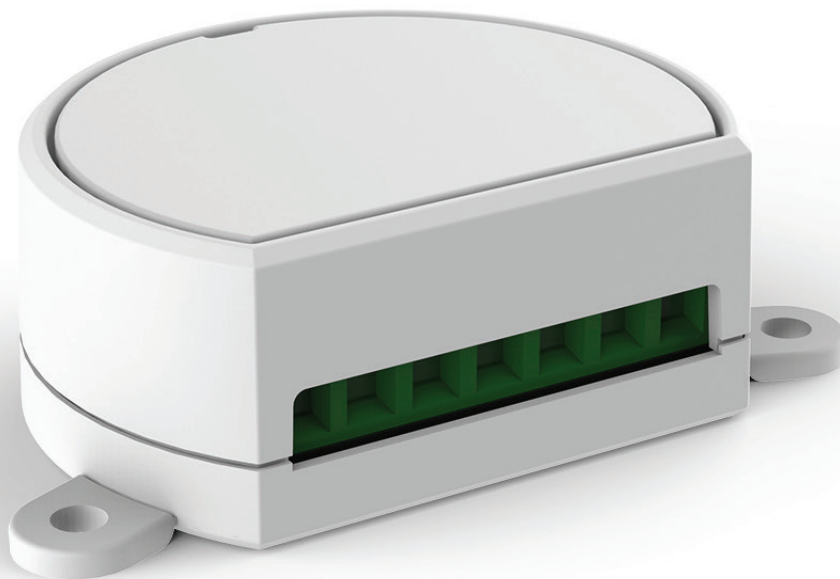# MCU-SEN4

*Control unit with dimmer function for single colour LEDs
with voltage, 12-24 VDC, 4 outputs,
Max 2,5 A per output. RX radio 433.92 MHz,*

NEXTA
T E C H

INDEX

WARNINGS

- Installation must be carried out only by qualified technicians in compliance with the electrical and
safety standards in force.
- All connections must be made with the power turned off.
- Use suitable cables.
- Do not cut through the aerial (see picture 1.1b)
- A suitably sized disconnection device must be set up on the electric power line that supplies the product.
- Disposal of waste materials must fully respect local standards.

1 - PRODUCT FEATURES

1.1 TECHNICAL DATA

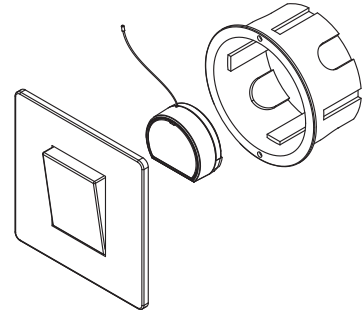| Power supply	12 - 24 Vdc
Output	Max load 2,5A:
	30 W (with 12Vdc) per output
	60 W (with 24Vdc) per output
Type of load	Single colour LED with
	constant voltage
N° programmable transmitters	30
Radio frequency	433.920mhz ISM
Protection rating	IP20
Operating temperature	-20 +55 °C
Dimensions	52x43x21 mm

Pic.1.1a

Pic.1.1b

Pic.1.1c
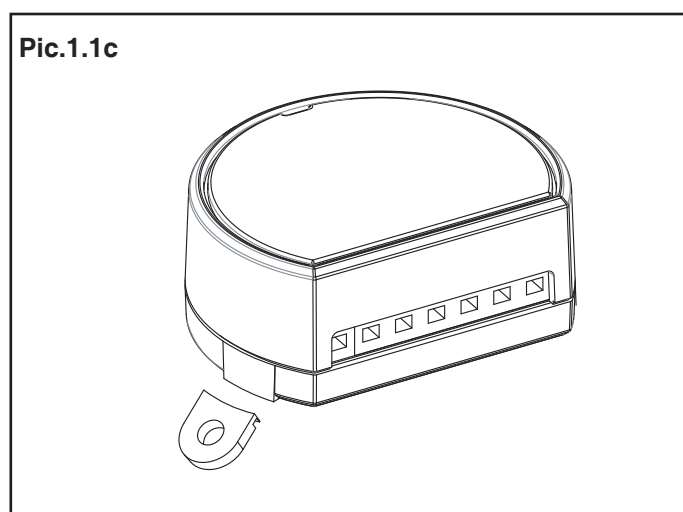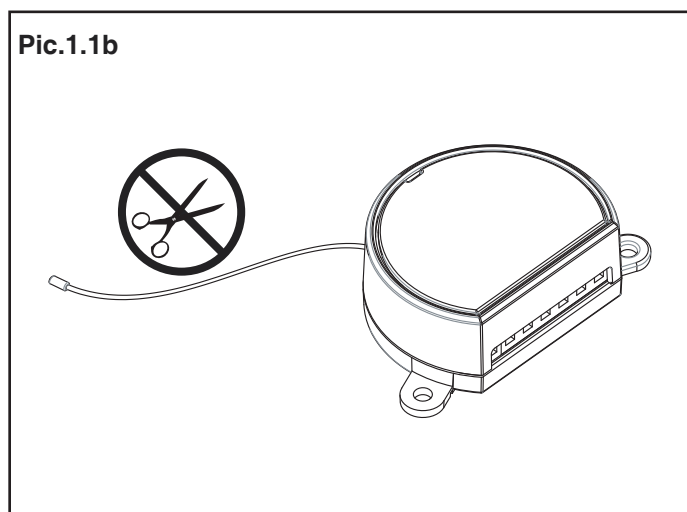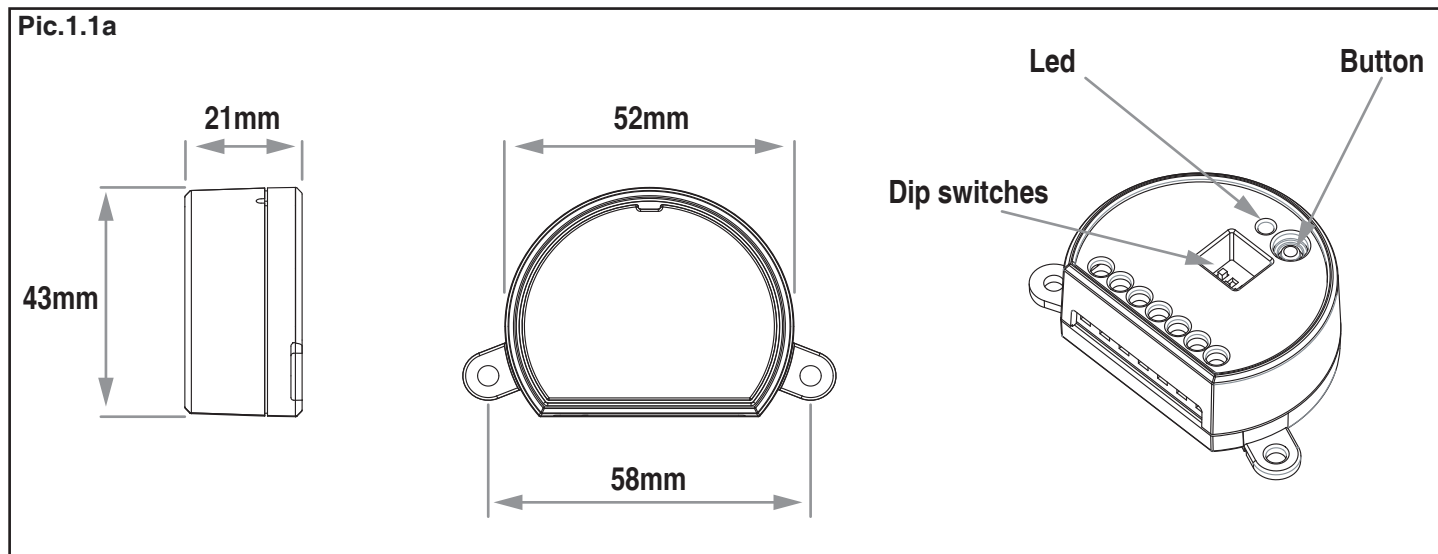
1.2 DESCRIPTION

This device is the miniature electronic control unit with dimmer function, for wireless control of singl colour constant voltage LEDs, power supply12-24Vdce, 4 outputs version with maximum consumption of 2,5A per output.
Fade On and Off that can be set between 0 and 10 seconds and adjustable Timed On (Default 60 secondi).
The ISM (industrial, scientific and medical) radio frequency band guarantees a long range and zero interferances.
Simple programming with dip-switch, reduced dimensions with tabs for fixing with screws.

Pic.1.2a

Pic.1.2b
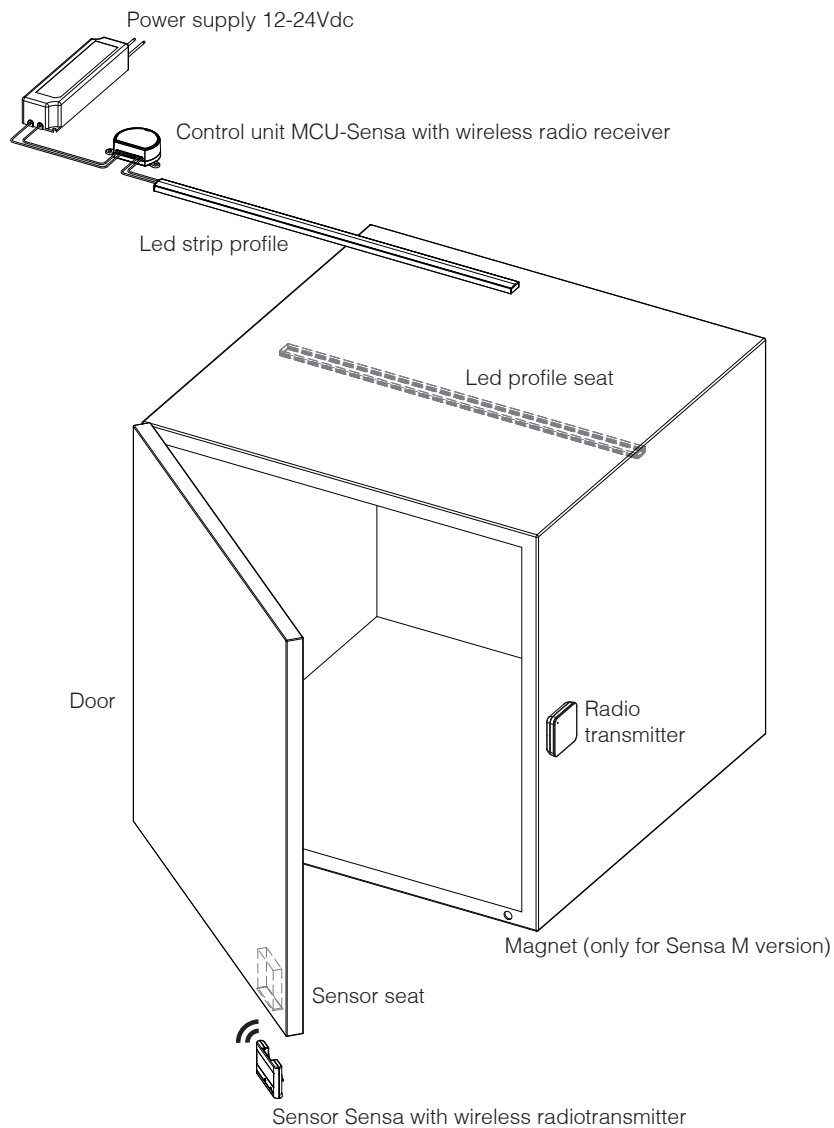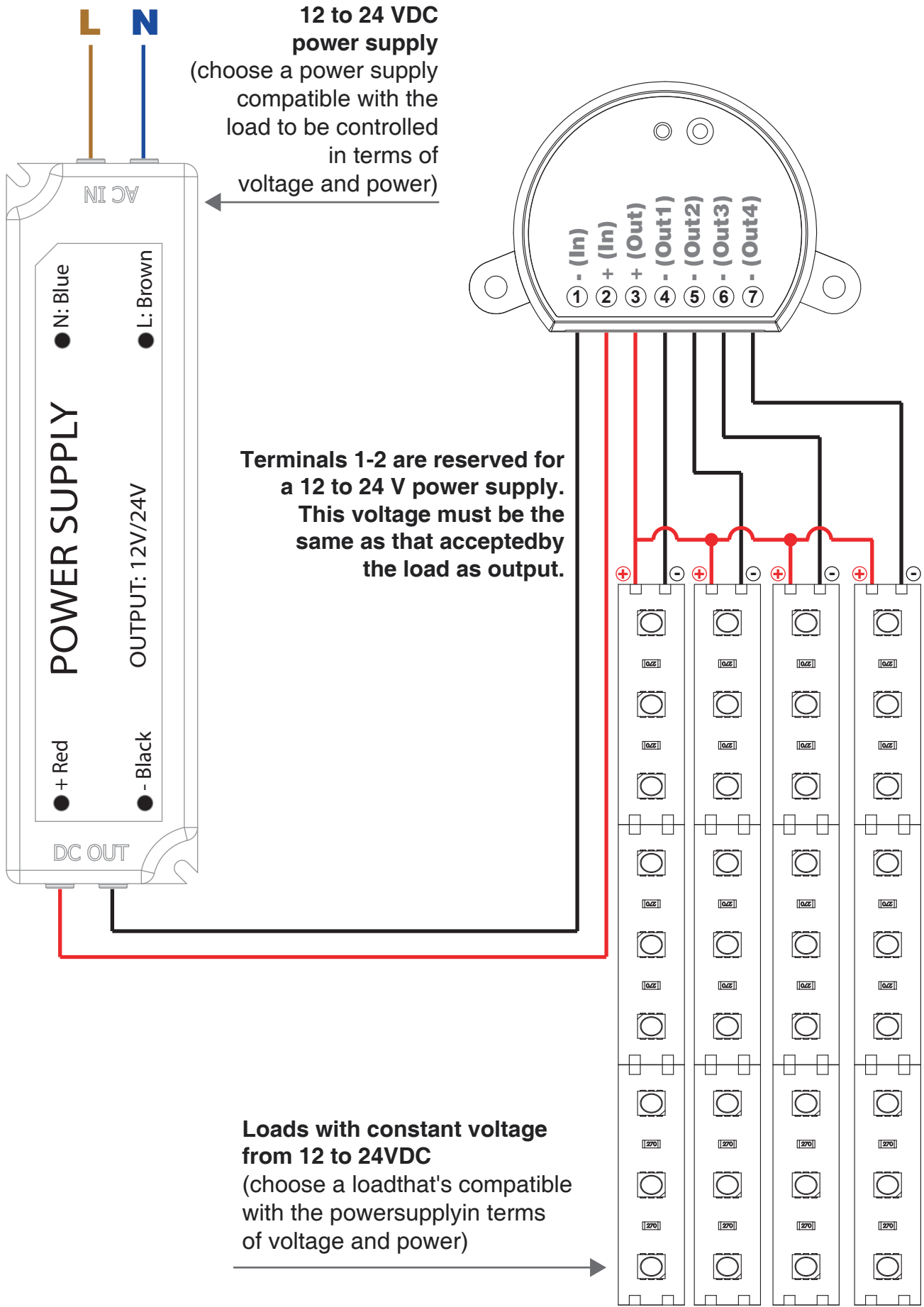
Pic.1.2c

Power supply 12-24Vdc

Control unit MCU-Sensa with wireless radio receiver

Led strip profile

Led profile seat

Door

Radio transmitter

Magnet (only for Sensa M version)

Sensor seat

Sensor Sensa with wireless radiotransmitter
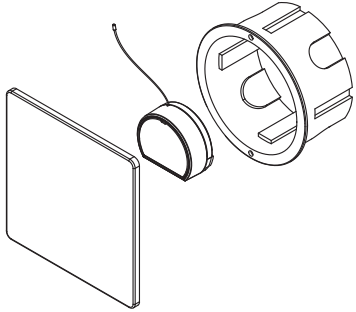
2 ELECTRICAL CONNECTIONS

2.1 CONNECTION DIAGRAM

Pic.2.1

12 to 24 VDC power supply
(choose a power supply compatible with the load to be controlled in terms of voltage and power)

Terminals 1-2 are reserved for a 12 to 24 V power supply. This voltage must be the same as that acceptedby the load as output.

Loads with constant voltage from 12 to 24VDC
(choose a loadthat's compatible with the powersupplyin terms of voltage and power)

POWER SUPPLY
OUTPUT: 12V/24V
N: Blue
L: Brown
AC IN
+ Red
- Black
DC OUT

- (In) 1
+ (In) 2
+ (Out) 3
- (Out1) 4
- (Out2) 5
- (Out3) 6
- (Out4) 7

2.2 DESCRIPTION OF CONNECTIONS

- Use wires with a suitable cross-section for the load connected.
- Multiple buttons or loads can be connected by using parallel cabling.

TERMINAL	DESCRIPTION
1	Power supply -
2	Power supply + (12-24V)
3	Output +24V
4	Output 1 -
5	Output 2 -
6	Output 3 -
7	Output 4 -

3 USE OF THE CONTROL UNIT

3.1 USE VIA RADIO

This control unit is set up to be activated by sensors or remote controls for automatic control of lights.
These devices must be programmed in order to control the loads, see paragraph 4.

By default, when a sensor intervenes or a command is sent by remote control, the associated lights come on for 60 seconds.

The control unit can also be commanded by transmitters, see paragraph 4.2 for the association procedure.
If the transmitter is a generic type, its operation will be as follows:
Short press= ON/OFF Long press= dimmer up/dimmer down
If the transmitter is multifunctional, refer to the transmitter manual, to the paragraph entitled "commands sent by the transmitter", bearing in mind that it is a "dimmer" device.

NOTE: the lights are on a timer for 60 seconds.
If you want to change this value, see paragraph 5.3.

Sensors

Radio transmitters
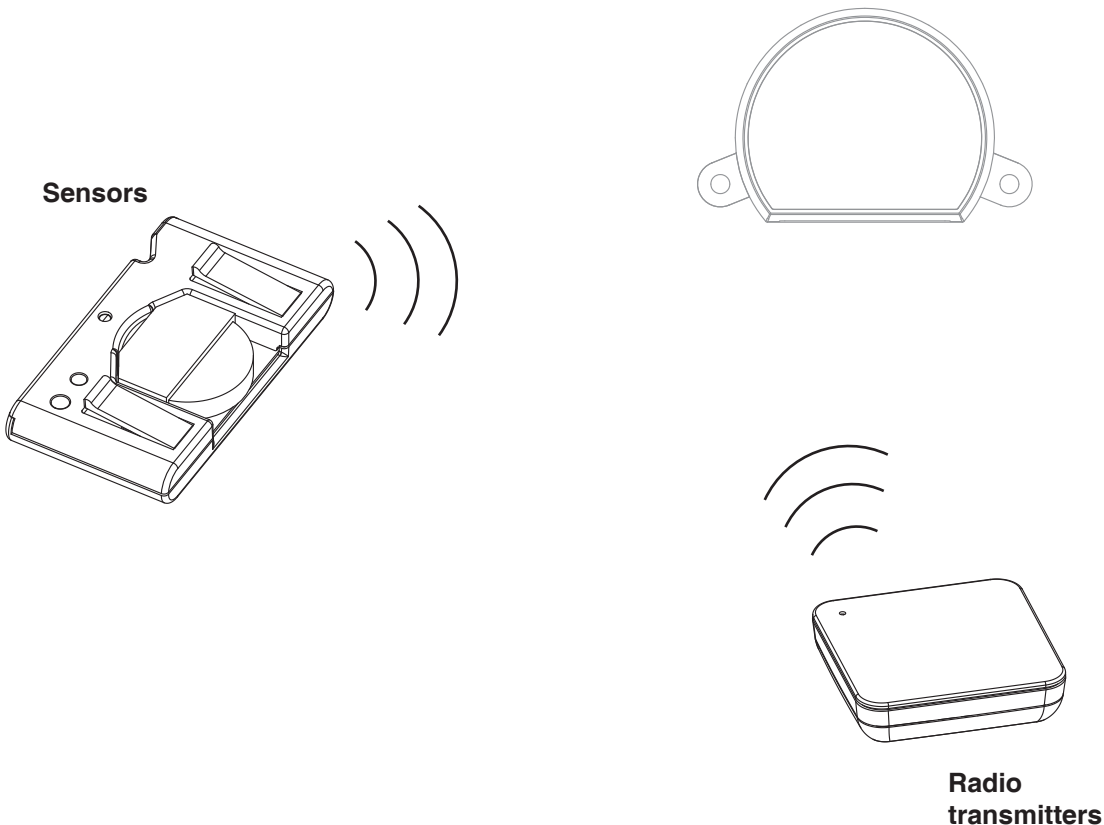
4 - RADIO PROGRAMMING

4.1 RADIO PROGRAMMING WITH THE ASSOCIATION OF THE SERIAL NUMBER

Default: serial number 1

With this procedure you can set a "serial number" for the receiver.
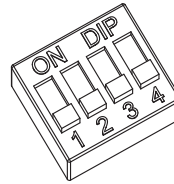The serial number to be set can be from 1 to 20.
*You can also delete the serial number (by setting 21 flashes in step 3/4 of the procedure) so that only manually associated sensors/transmitters operate.

To make the devices work a procedure must be carried out to give the receiver and sensors the same "serial number".

PROCEDURE:

STEP 1
Position DIPs 1, 2, 3 and 4
to OFF-OFF-OFF-OFF.

DIP 1, 2, 3, 4=
OFF OFF OFF OFF

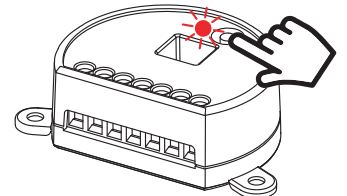**STEP 3**
Position DIP 4 to ON

The LED stays on.
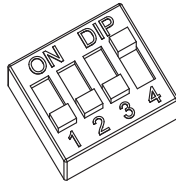
DIP 4= ON

STEP 2
Press the button on the
receiver for a short time.

The LED comes on
and stays on.

SHORT
PRESSURE

STEP 4
Press the button on the receiver for a short time count the number of flashes emitted by the LED:
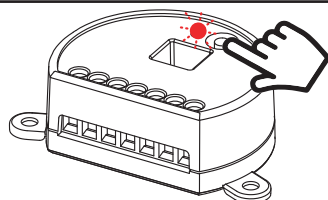
| FLASHES	SERIAL NUMBER	FLASHES	SERIAL NUMBER
1 flash	1	12 flashes	12
2 flashes	2	13 flashes	13
3 flashes	3	14 flashes	14
4 flashes	4	15 flashes	15
5 flashes	5	16 flashes	16
6 flashes	6	17 flashes	17
7 flashes	7	18 flashes	18
8 flashes	8	19 flashes	19
9 flashes	9	20 flashes	20
10 flashes	10	21 flashes	No serial number set*
11 flashes	11		
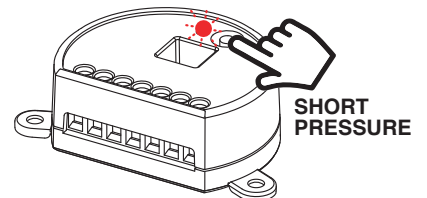
SHORT
PRESSURE

STEP 5
Press the button for a
short time during the
flash that corresponds
to the function desired
to end the count

SHORT PRESSURE
DURING THE FLASH
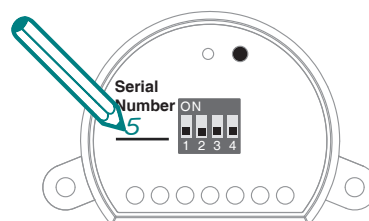
Serial
Number
5

NOTE:
Make a note on the label
of the "serial number" set,
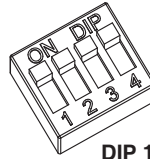for any future
maintenance work.

4.2 PROGRAMMING WITH MANUAL ASSOCIATION

A sensor/transmitter can be associated manually with this procedure.

PROCEDURE:

STEP 1
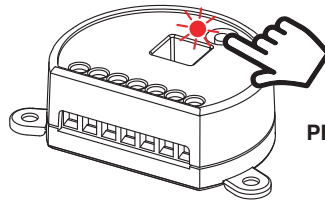Position DIPs 1, 2, 3 and 4 to ON-ON-ON-ON.

DIP 1, 2, 3, 4=
ON ON ON ON

STEP 2
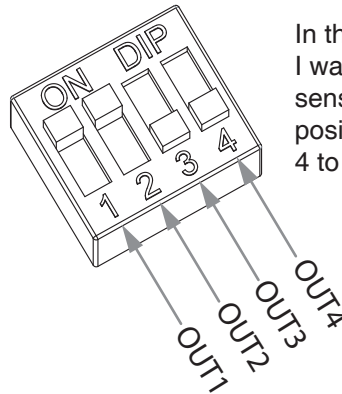Press the button on thereceiver for a short time.

The LED flashes

SHORT PRESSURE

STEP 3
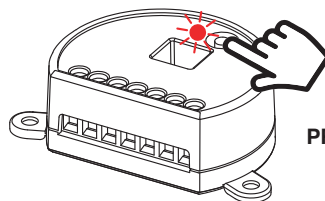Choose which output to make the device act on by moving the relative dip switches to OFF.

In the example shown:
I want to programme the sensor on output 3 and 4, I position dip switches 3 and 4 to OFF

OUT4
OUT3
OUT2
OUT1

STEP 4
Press the button on the receiver for a short time.

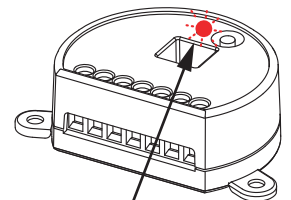The LED comes on and stays on.

SHORT PRESSURE

STEP 5
Make a transmission with the transmitter to be saved (see transmitter manual, paragraph entitled "transmitter programming").

The LED on the receiver flashes 3 times to signal that it has been received and turns off

MAKE A TRANSMISSION WITH THE TRANSMITTER

THE LED FLASHES 3 TIMES

ATTENTION
To delete the manually associated transmitters from the memory, carry out the reset procedure shown in paragraph 5.4.

5 - ADVANCE SETTING
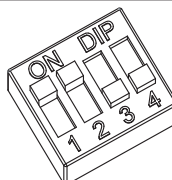
5.1 FADE SETTING: GRADUAL SWITCH ON

Default: 0,5s

This procedure means you can set the duration of the switch-on time.

PROCEDURE:

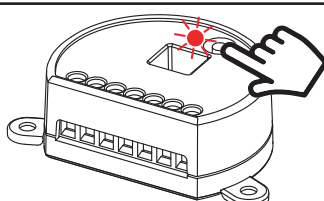**STEP 1**
Position DIPs 1, 2, 3 and 4
to ON-ON-OFF-OFF.

**DIP 1, 2, 3, 4=
ON ON OFF OFF**

STEP 2
Press the button on the
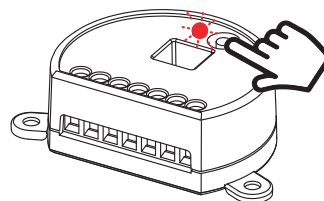receiver for a short time.

The LED comes on
and stays on.

**SHORT
PRESSURE**

STEP 3
Press the button on the receiver for a short time
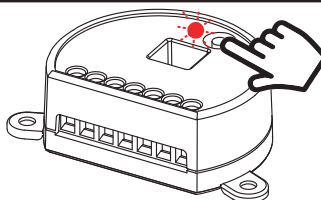count the number of flashes emitted by the LED:

FLASHES	SWITCH-ON TIME
1 flash	immediate ON
2 flashes	ON ~ 0,5s
3 flashes	ON ~ 2s
4 flashes	ON ~ 4s
5 flashes	ON ~ 10s

**SHORT
PRESSURE**

STEP 4
Press the button for a
short time during the
flash that corresponds
to the function desired
to end the count
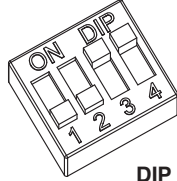
**SHORT PRESSURE
DURING THE FLASH**

5.2 FADE SETTING: GRADUAL SWITCH OFF

Default: 0,5s

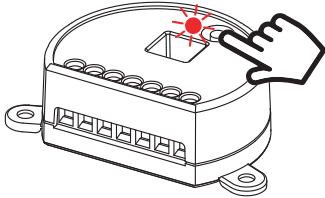This procedure means you can set the duration of the switch-on time.

PROCEDURE:

STEP 1
Position DIPs 1, 2, 3 and 4
to OFF-OFF-ON-ON.

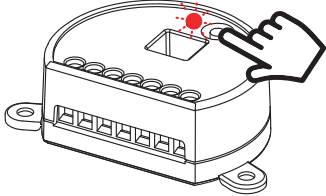**DIP 1, 2, 3, 4=
OFF OFF ON ON**

STEP 2
Press the button on the
receiver for a short time.
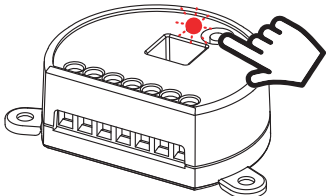
The LED comes on
and stays on.

**SHORT
PRESSURE**

STEP 3
Press the button on the receiver for a short time
count the number of flashes emitted by the LED:

FLASHES	SWITCH-OFF TIME
1 flash	immediate OFF
2 flashes	OFF ~ 0,5s
3 flashes	OFF ~ 2s
4 flashes	OFF ~ 4s
5 flashes	OFF ~ 10s

**SHORT
PRESSURE**

STEP 4
Press the button for a
short time during the
flash that corresponds
to the function desired
to end the count

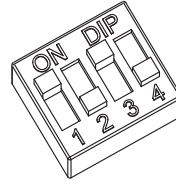**SHORT PRESSURE
DURING THE FLASH**

5.3 TIMED ON

Default: 60 seconds

This process is used to set the time for which the Leds stays on before an automatic switch off.

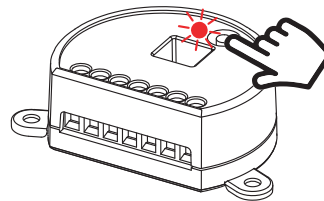**PROCEDURE:**

STEP 1
Position DIPs 1, 2, 3 and 4
to ON-OFF-ON-OFF.

**DIP 1, 2, 3, 4=
ON OFF ON OFF**

STEP 2
Press the button on the
receiver for a short time.

The LED comes on
and stays on.

**SHORT
PRESSURE**

STEP 3
Press the button on the receiver for a short time
count the number of flashes emitted by the LED:

FLASHES	TIMED ON
1 flash	No timing
2 flashes	5 seconds
3 flashes	30 seconds
4 flashes	60 seconds
5 flashes	90 seconds
6 flashes	120 seconds
7 flashes	180 seconds
8 flashes	5 minute
9 flashes	10 minute
10 flashes	30 minute
11 flashes	1 hour
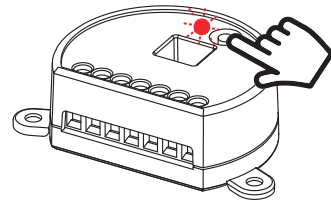
**SHORT
PRESSURE**

STEP 4
Press the button for a
short time during the
flash that corresponds
to the function desired
to end the count
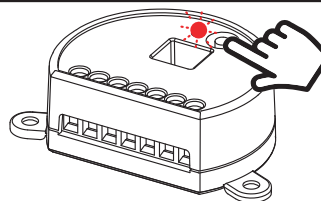
**SHORT PRESSURE
DURING THE FLASH**
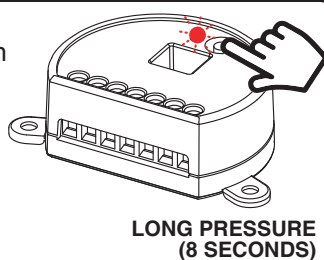
6 - DELETION OF TRANSMITTERS

These procedures let you delete from the memory transmitters that have already been programmed.

6.1 DELETION OF SINGLE TRANSMITTER

STEP 1
Hold the receiver button down for 8 seconds.

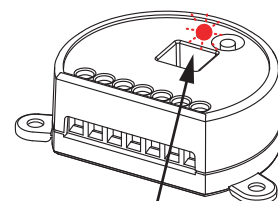The LED begins to flash

LONG PRESSURE (8 SECONDS)

STEP 2
Make a transmission with the transmitter that you want to delete.

The LED flashes quickly and turns off.

MAKE A TRANSMISSION WITH THE TRANSMITTER
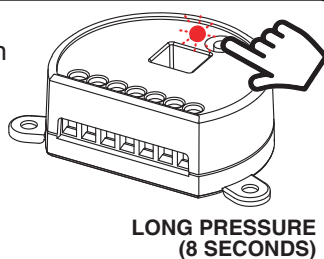
LED FLASHES QUICKLY

6.2 DELETION OF ALL THE SAVED TRANSMITTERS

This procedure will delete all the manually associated transmitters (see paragraph 4.2) and the serial number of the control unit will be taken back to 1.

STEP 1
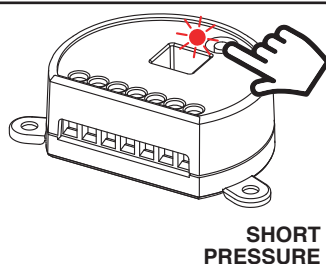Hold the receiver button down for 8 seconds.

The LED begins to flash.

LONG PRESSURE (8 SECONDS)

STEP 2
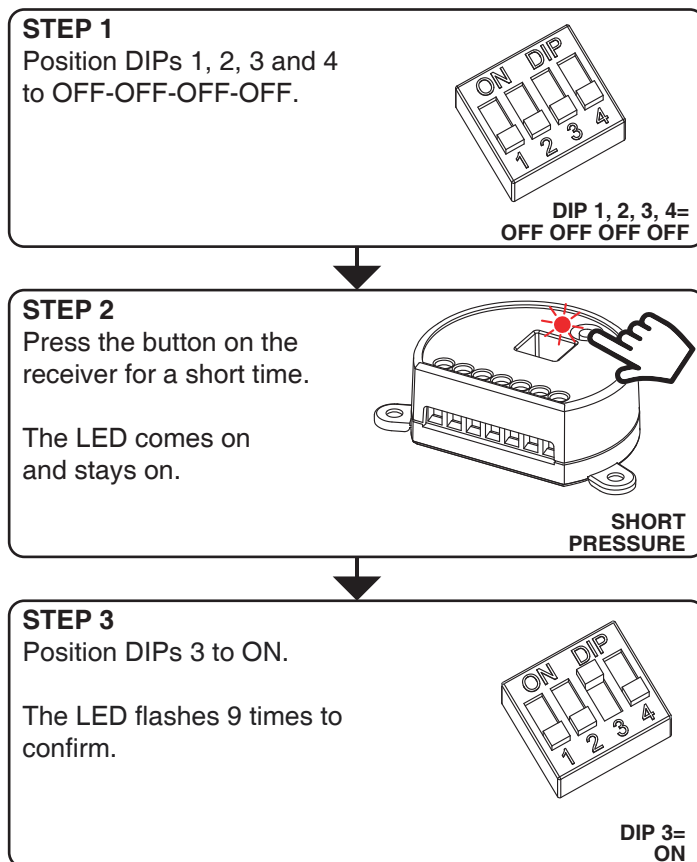Press the button on the receiver for a short time.

The LED starts flashing quickly and turns off.

SHORT PRESSURE

5.4 FACTORY SETTING

This procedure let you take the control unit back to factory settings.

FULL RESET OF THE CONTROL UNIT:

STEP 1
Position DIPs 1, 2, 3 and 4
to OFF-OFF-OFF-OFF.

DIP 1, 2, 3, 4=
OFF OFF OFF OFF

STEP 2
Press the button on the
receiver for a short time.

The LED comes on
and stays on.

SHORT
PRESSURE

STEP 3
Position DIPs 3 to ON.

The LED flashes 9 times to
confirm.

DIP 3=
ON

CE