

Eikon

20508

Arké

19508

Plana

14508

BUS EnOcean interface - 2 modules



Instructions

This manual is necessary in order to configure the radio-frequency devices when used with the By-me automation system through the specific Bus interface with the EnOcean module 20508-19508-14508.

WARNING:

- **The Bus interface 20508-19508-14508 is compatible with control unit 21509 ver. 3.00 and later.**
- **The actuator 01796.1 is compatible with control unit 21509 ver. 5.04 and later.**
- **The devices are compatibles with EasyTool Professional Software ver. 2.11 and later.**

Bus interface with EnOcean module

Bus interface with EnOcean module

The Bus with EnOcean module interface allows using the radio frequency devices to extend coverage in places or accesses where it is not possible to add any cables and devices via Bus.

The interface permits integrating the By-me system and the radio-frequency devices with the EnOcean module that allow carrying out all the automation functions such as, for instance, controlling lights and shades, scenes, etc.

The interface manages all these functions via pairs of configurable radio buttons such as rocker switches, dimmer switches, roller shade and scene controls and radio relay actuators.

It is supplied in the following versions:

20508: 2 Eikon modules

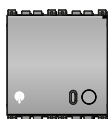
19508: 2 Arké modules

14508: 2 Plana modules

Eikon



Arké



Plana



Technical characteristics

- Rated supply voltage (Vn): BUS 20-30 V d.c.
- Protection class: IP30
- Operating temperature: -5 - +45 °C (for indoor use)
- Installation: flush or surface mounting
- Consumption: 20 mA typ
- Frequency of reception and transmission: 868 MHz
- Configuration button
- Indicator LED
- It has two terminals for the polarized connection to the Bus (+ and -).
- Maximum number of radiofrequency devices that can be stored:
 - 16 double rocker switches (each rocker switch can be saved to at most 4 different groups, group depth = 4)
 - no limit on the number of 01796.1 RF actuators, provided they belong to at most 30 groups.

Bus interface with EnOcean module

List of radio frequency devices that can be used

VIMAR Code	DESCRIPTION / COMPOSITION
20505	Flat control with two rocker buttons with EnOcean radio transmitter without batteries, power supply from the built-in electro-dynamic generator, to be completed with the dedicated buttons 20506-19506-14506
20506 - 19506 - 14506	Pair of buttons for control with EnOcean module 20505
01796.1	EnOcean multi-function 1-relay actuator, power supply 230 V~ 50-60 Hz.

N.B.: The flat control with two rocker push buttons 20505 is the radio unit on which pair of button must be mounted; this combination permits obtaining radio-frequency "lighting points".

Operation

The device receives the signals emitted by the radiofrequency rocker push buttons and transmits the commands to the radio actuators.

- Normal operation from radio-frequency to Bus: it receives information from the radio rocker push buttons (pressing and releasing the button) and controls the actuators over the Bus.
- Normal operation from Bus to radio-frequency: it receives the group messages from the devices over the Bus (single push-buttons, rocker switches, etc.) and controls the actuators by radio-frequency.
- Radio interface configuration: in the phase of configuration the control panel passes minimal information to the interface: enabling LED, index of the interface.
- Replacing radio interface: in this phase the By-me control panel transfers the radio devices present in the interface being replaced to the new interface.
- Configuring radio-frequency devices: in the phase of adding radio devices, the interface with the EnOcean module saves the characteristics of the radio rocker button that responded and sends them to the control panel. In addition, the interface saves all the information related to the configured radio actuators.

Indicators

- red LED on steady:
 - during the configuration phase;
- green LED blinking (only if the LED enabling parameter is not Off):
 - the interface is receiving or transmitting a radio-frequency message.

Settings (programmable via the control panel)

- Enabling LED:
 - Normal: the green LED is normally off and blinks when receiving or transmitting a radio-frequency message.
 - Inverted: the green LED is normally on and blinks when receiving or transmitting a radio-frequency message.
 - Off: the green LED never lights up.

Standard compliance

R&TTE directive

Standards EN 50428, EN 301 489-3, EN 300 220-2.

Pair of buttons for flat control with EnOcean module

Pair of buttons for flat control with EnOcean module

The pair of buttons, suitably hooked onto the flat control with two rocker push buttons, permits obtaining the lighting point by radio through which it is possible to carry out all the functions of automation (lights, roller shades, scenes, etc.) in a similar manner to the conventional By-me control appliances.

IMPORTANT: The buttons can be specially customized with any symbol.

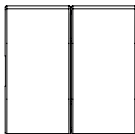
The pair of buttons can be supplied in the following versions:

20506: 2 Eikon modules

19506: 2 Arké modules

14506: 2 Plana modules

Eikon



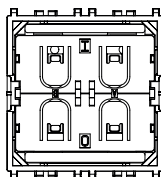
Arké



Plana



The flat control with the EnOcean module with two rocker push buttons, art. 20505, is supplied in the 2-module version.



20505

Technical characteristics

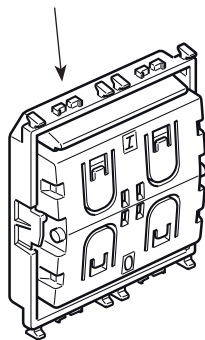
- Rated supply voltage (Vn): no kind of power supply is needed.
- Operating temperature: -5 - +45 °C (for indoor use)
- Transmission frequency: 868 MHz
- Installation: flush or surface mounting. Surface mounting installation, thanks to the special mounting frame (art. 21507, 20507, 19507, 20607, 14607), can be on materials such as, for instance, wood, masonry, etc.
- Capacity: 70 m in an open field; this value is less when there are walls and/or metal partitions. Before installing the device, always take care to check the strength of the radio signal.

IMPORTANT: When the button is pressed, for the radio control to be transmitted, you must hear a mechanical "click".

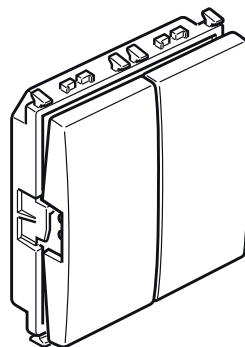
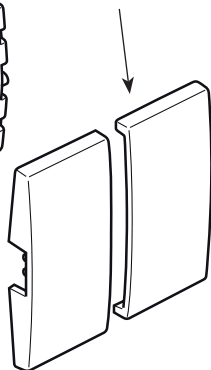
Pair of buttons for flat control with EnOcean module

Hooking the pair of buttons 20506-19506-14506 onto the flat control with two radio rocker push buttons 20505.

Flat control 20505



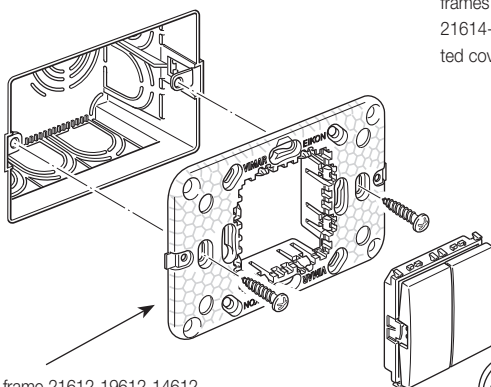
Pair of buttons 20506 -19506-14506



Pair of buttons hooked onto the flat control 20505

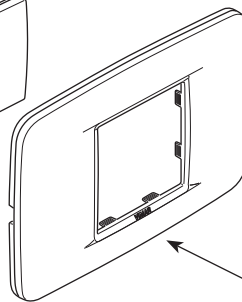
Installation on flush mounting box

Warning: Installation can be performed also on mounting frames with 3, 4 and 7 modules art. 21613-19613-14613, 21614-19614-14614 and 21617-19617-14617) and related cover plates.



Mounting frame 21612-19612-14612

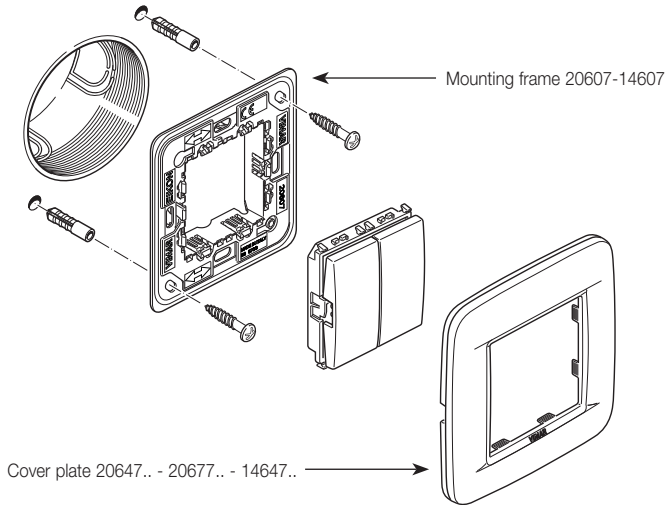
The distance from flush with the wall mounting frame + cover plate + control + buttons is 9.5 mm for Eikon, 10.2 mm for Arkè and 10.5 mm for Plana.



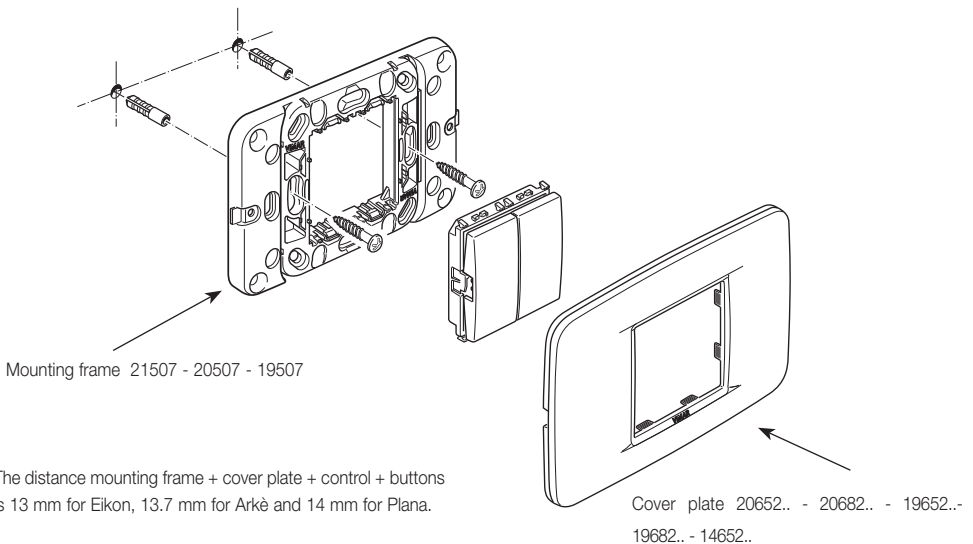
Cover plate 20652... - 20682... - 19652... - 19682... - 14652...

Pair of buttons for flat control with EnOcean module

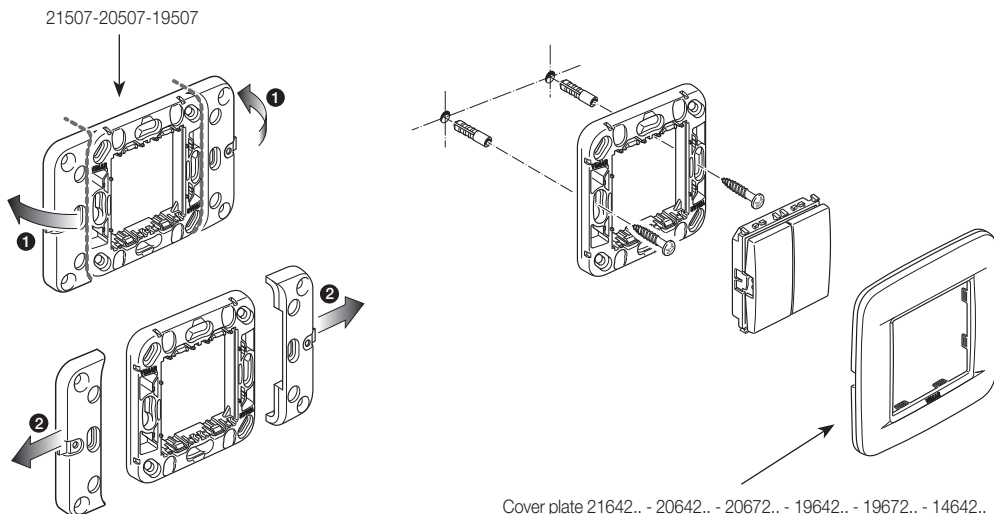
Installation on BS flush mounting box.



Surface-mounting installation.



Pair of buttons for flat control with EnOcean module



Functionality

With the By-me control panel, each single button of the pair can be configured as an On/Off, dimmer switch, roller shade button or scene control button.

For configuring the rocker push buttons with the EnOcean module, see par. "Managing Bus interface with EnOcean module" in the By-me control panel manual.

Warning: When adding a button it is necessary for it to be inserted in the same group as the relay you want to control.

OPERATION AS AN ON/OFF BUTTON.

Pressing the top of the button sends an ON message to the group or groups where this button has been saved; afterwards an actuator in the group will switch over. On the contrary, pressing the bottom of the button sends an OFF message to the group(s) where this button has been saved.

OPERATION AS A DIMMER SWITCH

- Briefly pressing the top of the button: an ON message is sent to the group to which the button belongs.
- Pressing and holding the top of the button: sends a START brightness increase message while pressing the button and a STOP message on releasing it.
- Briefly pressing the bottom of the button: an OFF message is sent to the group to which the button belongs.
- Pressing and holding the bottom of the button: sends a START brightness decrease message while pressing the button and a STOP message on releasing it.

Pair of buttons for flat control with EnOcean module

OPERATION AS A ROLLER SHADE BUTTON

- Briefly pressing the top of the button: a STOP opening roller shade message is sent to the group to which the button belongs.
- Pressing and holding the top of the button: a START opening roller shade message is sent to the group to which the button belongs.
- Briefly pressing the bottom of the button: a STOP closing roller shade message is sent to the group to which the button belongs.
- Pressing and holding the bottom of the button: a START closing roller shade message is sent to the group to which the button belongs.

OPERATION AS A SCENARIO BUTTON

Pressing the top of the button calls up the associated scenario (scenario 1) whereas pressing the bottom of the button calls up another associated scenario (scenario 2).

Standard compliance

R&TTE directive

Standards EN 301 489-3, EN 50371, EN 300 220-2.

Customizing buttons 20506 - 19506 - 14506.

The buttons can be specially customized with any symbol even for minimum quantities; the customizing is done by laser.

In addition it is possible to reorder the same customization at different times with identical results since all the customizations are saved to magnetic media.

Buttons 20506 - 19506 - 14506 can be customized with:

- standard symbols and messages (for full details, please refer to the Vimar catalogues).
- symbols and text on request.

As regards customizing with symbols and text on request, take account of the following:

- provide a printout or a film of the subject to duplicate, drawn in black and white to a scale 2 or 3 times greater than the finished size;
- the subject can also be supplied on a magnetic medium (DOS or MAC diskette with image in EPS or TIFF format), together with a hardcopy paper printout;
- check that the desired symbol and/or text are not already included in the following tables; in this case it is sufficient to state the relevant code in addition to the article code on the request.

Important:

- Do not provide photocopies of the subject to duplicate.
- Do not transmit the subject to duplicate by fax since the low resolution of faxes prevents duplicating the transmitted document with the quality of the laser system.

To request customization, follow the instructions given in the specific section of the General Price List.

For the delivery times, please contact the Vimar sales network.

EnOcean multi-function 1-relay actuator (01796.1)

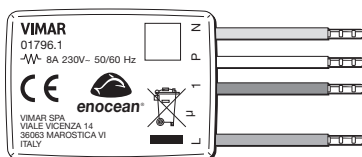
EnOcean multi-function 1-relay actuator, power supply 230 V~ 50-60 Hz (01796.1)

The actuator with the EnOcean module is able to receive both the radio signal transmitted by the bus interface with the EnOcean module following a command made with the button of a By-me device and the radio command of the radio-frequency rocker switch to actuate, via relay output, the load to which it is connected.







It can be connected to a traditional switch or push button to control the on-board relay or another EnOcean actuator; the wired connection also enables making mixed wired/radio systems, by connecting a wired two-way switch (possibly connected to a multi-way/two-way switch) to add a radio control point.

The actuator operates also as a signal repeater by propagating the EnOcean signals to increase the coverage of the network. It is protected against overloads and overheating; near-to-zero-volt detector to increase the life of the relay.

If there is no mains power supply, the actuator keeps the previous configuration.

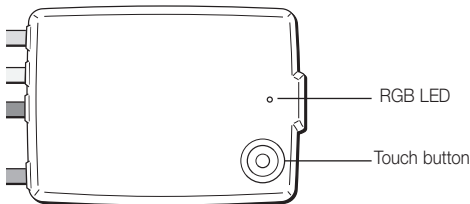
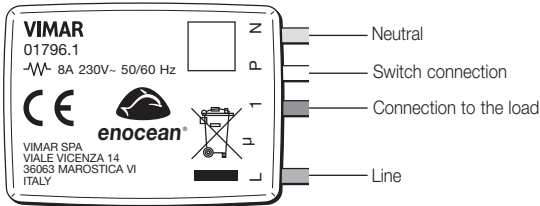


TECHNICAL CHARACTERISTICS.

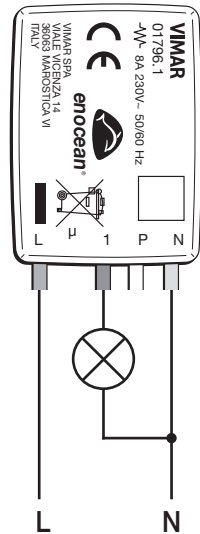
- Power supply: 230 V~, 50-60 Hz.
- Reception frequency: 868 MHz.
- Operating temperature: -10°C to +45°C (indoor use).
- Touch button for configuration and for local load control.
- RGB LED for signalling the various configuration phases.
- This device supports the following EEP (EnOcean Equipment Profiles):
 - switches with EEP F6 02 01 (eg: 20505);
 - presence sensors with EEP A5 07 01;
 - contacts for doors/windows with EEP D5 00 01;
 - gateway with EEP A5 38 08 command 0x01;
 - card readers with EEP F6 04 01;
 - water sensors with EEP F6-05-01;
 - handle for window with EEP F6-10-00;
 - energy meter with EEP D2-01-09.
- Two-position stable relay output with the following controllable loads:
 - resistive loads  : 8 A (20.000 cycles);
 - incandescent lamps  : 5 A (20.000 cycles);
 - fluorescent lamps  : 1 A (20.000 cycles);
 - energy saving lamps  : 100 W - 230 V~ (20.000 cycles);
 - LED lamps  : 100 W - 230 V~ (20.000 cycles);
 - electronic transformers  : 4 A (20.000 cycles);
 - cos ø 0.6 motors: 3.5 A (100.000 cycles).
- Maximum number of radio transmitters that can be saved on the relay: 30.

EnOcean multi-function 1-relay actuator (01796.1)

FRONT AND BACK VIEW

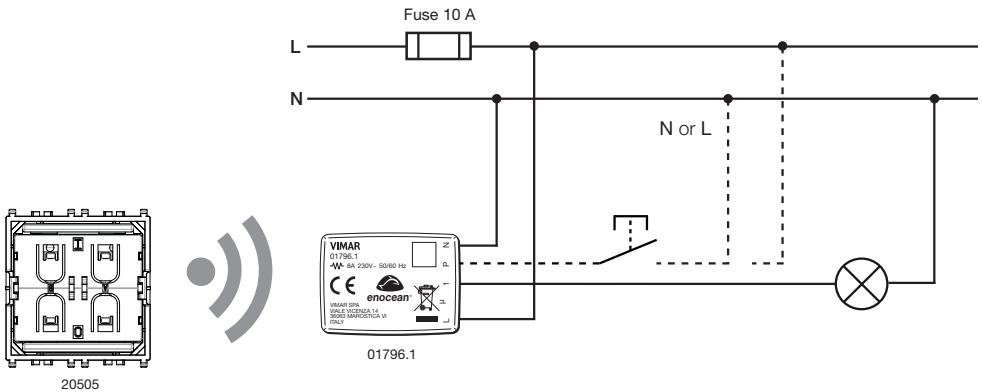


CONNECTIONS TO THE LOAD



CONNECTION WITH A TRADITIONAL PUSH BUTTON

The actuator 01796.1 can be connected to a traditional push button to control the load from a second point (in addition to the radio control 20505)



EnOcean multi-function 1-relay actuator (01796.1)

FUNCTIONALITY

ADDING RADIO ROCKER SWITCHES

The configuration procedure is as follows:

- 1) Connect the actuator 01796.1 to the electric mains.
- 2) Press the touch button for 5 s; the LED will blink red, then release the button.
- 3) To access the actuator acquirement mode, please see the By-me control panel manual. The code sent by the control panel is saved on the actuator and, to confirm acquisition, the LED will slowly blink green 5 times. If you have exceeded the maximum number of configurable devices (30) the LED will blink red 5 times.
- 4) The actuator automatically exits the phase of adding buttons.

REMOVING A RADIO ROCKER SWITCH

A previously saved button can be selectively deleted; this operation is performed using the By-me control panel menus, therefore please see the relevant manual.

DELETING ALL THE SAVED BUTTONS

To clear all the buttons saved on the actuator, press and hold the touch button for 20 s; in that time the device will go through the various stages of configuration until the red LED switches on with a steady light, then release the button. Press the touch button again for another 5 s to confirm; the green LED will blink quickly to confirm the deletion of all the saved devices. If the procedure is abandoned, after a timeout of 15 s, the actuator will return to normal operation without deleting anything.

ACTUATOR OPERATION WITHOUT THE BY-ME CONTROL PANEL

CAUTION: Before carrying out the operations to **ADD RADIO ROCKER SWITCHES** described below, perform the procedure to **DELETE ALL THE SAVED BUTTONS**.

ADDING RADIO ROCKER SWITCHES

The pair of rocker switch devices (radio transmitter) and actuator with 1 output (receiver) can also function without the aid of the By-me control panel and the interface with the EnOcean module; the commands sent via the rocker switches can be received directly by the actuators.

The configuration procedure is as follows:

- 1) Connect the actuator 01796.1 to the electric mains.
- 2) Press the touch button for 5 s; the LED will blink red, then release the button.
- 3) Then press either the top or the bottom of the rocker switch with which you want to control the actuator. Saving is confirmed by the LED slowly blinking green 5 times. If you have exceeded the maximum number of configurable devices (30) the LED will blink red 5 times.
- 4) The actuator automatically exits the phase of adding buttons.

REMOVING A RADIO ROCKER SWITCH

A previously saved radio button can be selectively deleted.

- 1) Press the touch button for 5 s; the LED will blink red, then release the button.
- 2) Then press the button you want to remove from the actuator memory; the LED will slowly blink green 5 times. If you have exceeded the maximum number of configurable devices (30) the LED will blink red 5 times.
- 3) The actuator automatically exits the phase of removing buttons.

CONFIGURING BUTTON MANAGEMENT

Before you begin saving the buttons in the actuator you can select the type of operation from the following:

- Type 1: Operation as an on/off rocker switch (default setting).
- Type 2: Same as type 1.
- Type 3: Each single button can be saved separately and the load is only active when the button is pressed.
- Type 4: Each single button can be saved separately and the type of operation toggles on pressing the button.

After selecting the type of operation, all the buttons saved in the actuator will have the same behaviour.

EnOcean multi-function 1-relay actuator (01796.1)

The procedure for selecting the type of operation is as follows:

- 1) Press the touch button for 8 s (after the first 5 s the device goes into the phase of adding buttons and then into the phase of configuring button management); the LED will blink red for a number of times equal to the current type of operation (1 time for Type 1, 2 times for Type 2, etc.) and will then switch off for 1 s.
- 2) Release the button.
- 3) Select the type of operation by tapping on the touch button that will vary the blinking of the LED with a number of switching on/off equal to the chosen type.
- 4) Confirm the setting by pressing the touch button for 5 s; the LED will blink green 5 times to confirm the change.

If the procedure is abandoned, after a timeout of 15 s, the actuator will exit this phase without making any changes.

DELETING ALL THE SAVED BUTTONS

To clear all the buttons saved on the actuator, press and hold the touch button for 12 s; in that time the device will go through the various stages of configuration until the red LED switches on with a steady light, then release the button. Press the touch button again for another 5 s to confirm; the green LED will blink quickly to confirm the deletion of all the saved devices. If the procedure is abandoned, after a timeout of 15 s, the actuator will return to normal operation without deleting anything.

CONFIGURING AS A SIGNAL REPEATER

The actuator can be used to extend the range of radio signal coverage and can be configured to level 1 or 2.

To configure the repeat mode, proceed as follows:

- 1) Press the touch button for longer than 15 s (after the first 5 s the device will go into the phase for adding buttons, configuring management buttons, deleting all the buttons and finally into the phase of configuring the repeater); the LED will blink red.
- 2) Release the button.
- 3) Select the type of repeater by tapping the touch button. Each time you press the button you scroll through the types of repeater; the number of red blinks indicates the active mode (1 blink Mode 1, 2 blinks Mode 2, etc.).
 - **Mode 1** = Repeater off.
 - **Mode 2** = Repeater on level 1, that is it repeats new messages (ones that have not already been repeated).
 - **Mode 3** = Repeater on level 2, that is it repeats new messages or messages that have already been repeated at least once.
- 4) Confirm the setting by pressing the touch button for 5 s; the LED will blink green 5 times to confirm the change.

If the procedure is abandoned, after a timeout of 15 s, the actuator will exit this phase without making any changes.

CONFIGURING THE EXTERNAL BUTTON

The actuator can be connected to a traditional switch to control the on-board relay or to control other EnOcean actuators.

The device thus simulates the behaviour of an EnOcean PTM button.

If you need to control other actuators, carry out the following procedure:

- 1) Enable saving in the remote actuator.
- 2) Close the traditional switch/push button; the remote actuator will signal saving.

After saving, you can, by opening and closing the traditional switch, control the remote actuator.

INSTALLATION RULES.

- Installation should be carried out in compliance with the current regulations regarding the installation of electrical equipment in the country where the products are installed.
- The relay output power circuit must be protected against overcurrents by installing a device, a fuse with a rated breaking capacity of 1500 A or a type-C circuit breaker, with rated current not exceeding 10 A.

REGULATORY COMPLIANCE.

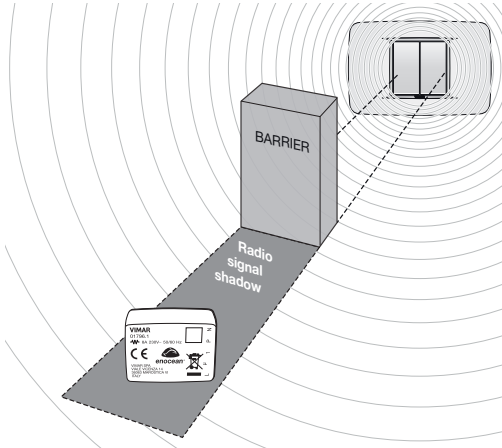
R&TTE directive.

Standards EN 60669-2-1, EN 301 489-3, EN 300 220-2, EN 62479.

EnOcean multi-function 1-relay actuator (01796.1)

Warning: The following illustrates the situations that reduce the transmission/reception capacity of the radio devices.

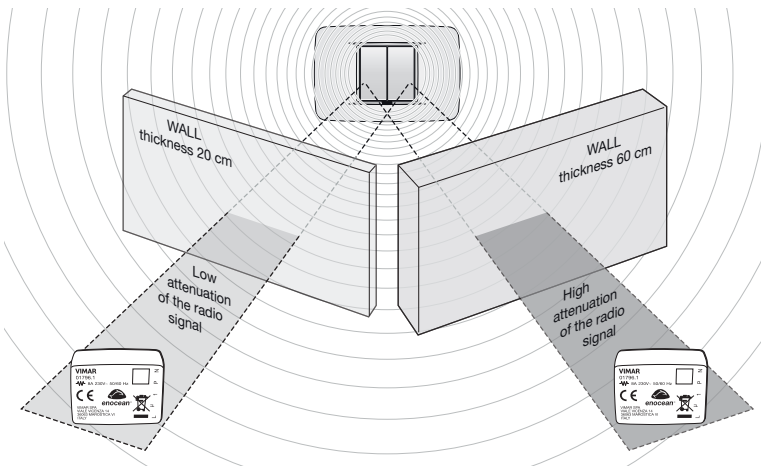
- Radio lighting point installed in a metal casing;
- Plasterboard walls with insulation of wool and aluminium foil;
- False ceilings made of metal or carbon fibre;
- Lead glass or glass with covering of metal, steel jewellery;



Radio signal penetration

Material	Penetration
Wood, plastic, glass	90....100%
Bricks	65....95%
Concrete	10....90%
Metal, aluminium walls	0....10%

- Transmitter or receiver installed on the floor or in a niche in a wall;
- Moisture;
- Devices that transmit RF signals such as computers, audio and video appliances or dimmer switches for lamps: keep at a distance of at least 0.5 m.





20508IEN 03 1702



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