

GB

DIMMER FOR RESISTIVE AND INDUCTIVE LOADS "HIDDEN" INSTALLATION - 442TC48

INTRODUCTION

The dimmer 442TC48 is a control with incorporated touch sensor. It has an output with combined TRIAC + IGBT technology. It can be controlled locally and from various points with NO buttons. Leds allow the control to be seen in the dark and must be installed "hidden" on the back of the front plates.

TECHNICAL SPECIFICATIONS

- Overall dimensions: 1x S44 "hidden" module
- Protection degree: IP40
- Terminal board with 3 terminals accessible on the back
- Power supply voltage: 230 Vca 50 Hz
- Variation allowed: $\pm 10\%$
- Max. absorption: 23,5 mA at 230 Vca (1,3 W)
- Sensitive front area: the entire front of the apparatus (see fig. 1 area A1)
- "2 wire" connection (in series with controlled load)
- Static output with TRIAC + IGBT combined technology
- Load type controllable directly in alternate current:
 - incandescent and halogen lamps: 40-400 W
 - ferromagnetic transformers for halogen lamps in very low voltage: 40-400 VA

- **electronic inductive transformers type  OSRAM HALOTRONIC HTM 70/230-240, HTM 105/230-240, HTM 150/230-240 (*)**: 40-300 VA (*) **do not use more than 4 transformers on the same line**

- Switching on, regulating and switching off:
 - rest the finger gently on the plate near the entire front of the device (see fig. 1)
 - from various points with touch buttons for remote control (code 442TC05) or NO buttons connected to the phase

N.B.: the remote control push switch may be installed at 100 metres max. from the light with conductor of 1,5 square millimetres. An auxiliary relay should be used for longer distances

- Gradual switching on (Soft start) and gradual switching off (soft end): contribute to prolonging the life of the lamp. In particular soft start reduces the stress to the filament when switching on and avoids a blinding effect on people
- Possibility of easily setting the search for maximum luminosity
- **Status memory: when the load is switched off it guarantees the memory of the light level that was set (even in the case of power failure)**
- Overload protection: should a greater load be connected than the nominal one, the device switches itself off for 20 seconds, signalling this with a quick flashing of led L1 (see fig. 1). It is necessary to reduce the load
- Front Led (L1) for locating in the dark (see fig. 1): when the hand approaches, the led emits a brighter light. Note: Should the light emitted by the leds be bothersome apply on the front of the device (on the back of the plate) the blue sticker that is found in the set code ET116
- Sound signal to confirm that the control has been identified and to confirm entry/exit from the state of temporary inhibition (see PROGRAMMING paragraph)
- It is possible to set the sensitivity function of the device: at the touch of the plate or at a distance of 4mm from the plate itself (see PROGRAMMING paragraph)
- Temporary inhibition function to allow the plate cleaning (see PLATE CLEANING paragraph)

PROGRAMMING

There is a two-position Sw switch on the side (see fig. 1), to programme the device.

Sound alarms

The sound alarms emitted to confirm the recognition of the control and to confirm the entry/exit from the state of temporary inhibition (plate cleaning) can be excluded by pressing the first switch:

- position ON: sound activated
- position OFF: sound excluded

Sensitivity

It is possible to set the sensitivity of the device, or the distance from the front of the plate from where there is the recognition of the control, acting on the second switch:

- position ON: recognition at 4mm from the plate (maximum sensitivity)
- position OFF: recognition at the touch of the plate (minimum sensitivity)

N.B. It is advisable to set minimum sensitivity if installing two or more switches close to each other

OPERATION

Rest the finger gently on the plate and the light switches on, a second brief pressure will switch the light off. Keep the finger near the plate, this will regulate the light intensity in a cyclical manner: light intensity will increase to maximum and then after about 1 second, will decrease to minimum. To invert the regulating direction move the finger away and then move it back near the plate.

With the lamp off, keep the finger near the plate for about 0,3-2 seconds, the light will switch on to maximum intensity (soft start).

PLATE CLEANING

In order to clean the front plate without continuously activating the output, it is possible to temporarily inhibit the operation of the device by placing a finger near area A1 (see fig. 1) for a time of 10 seconds: a 4 beeps alarm indicate the activation of the state of inhibition. The state of inhibition is signalled by L1 flashing slowly (see fig. 1) and remains for a time of 15s before returning automatically to ordinary operation. After that, a 4 beeps alarm indicate the deactivation of the state of inhibition. It is also possible to access temporary inhibition by removing and re-applying the plate when the device is connected.

INSTALLATION

The switch must be fixed into the back of the front plates, in rectangular or square boxes or round boxes $\varnothing 60\text{mm}$ with **45 mm minimum depth**

WEATHER CONDITIONS

Temperature and relative humidity of reference: 25°C Rel. H 65%
Operating environment temperature field: from -5°C to +35°C
Maximum relative humidity: 90% at 35°C
Max altitude: 2000 a.m.s.l.

COMPLIANCE WITH REGULATIONS

CEI EN 60669-2-1

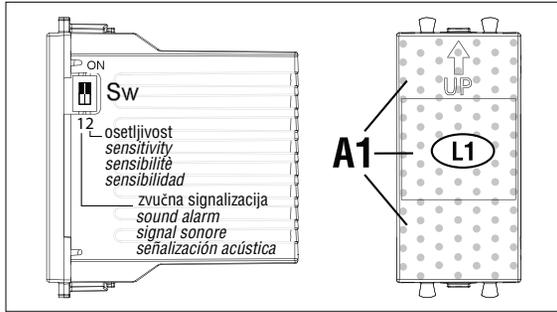
CONNECTION DIAGRAMS (fig. 2)

The feed circuit (L-N) must be protected against overloads by a rapid fuse with high break power

WARNINGS

- Electronic device, handle with care
- It is recommended not to install more than one dimmer in the same box. Otherwise (2 or more devices), they have to be installed spaced and the controlled load must not exceed the 800W all together.
- Do not connect two or more dimmers in series.
- Never exceed the stated rated power.
- Do not expose the dimmer to the direct effect of heat sources: warming of the front side of on duty devices is normal
- Make sure that the front plate is perfectly adherent to the hidden control devices in case of unexpected switching

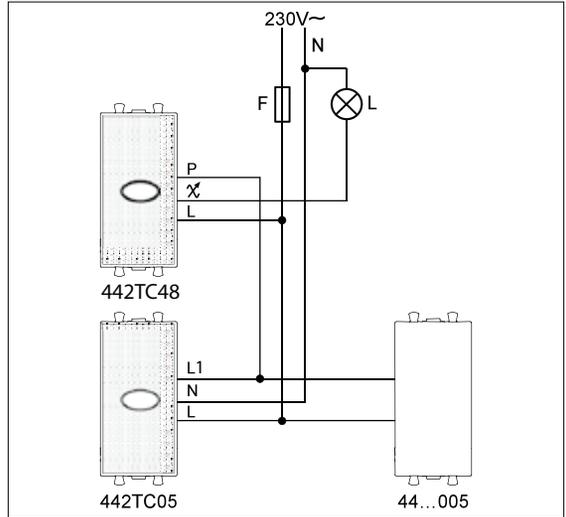
Figure 1



Legend

L: load
F: fuse type F 2A H 250V~

Figure 2



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IMPORTANT NOTES:

- Products should be sold in their original packaging. Otherwise, the retailer and/or installer is obliged to follow, as well as to communicate to the user, the instructions for use which are supplied with the product and/or are published on the website www.ave.it as well as in the current product catalog.
- AVE products are installation products
- Products must be installed by trained professionals in compliance with the installation regulations.
- Once the product is unpacked, make sure that the appliance is undamaged. Do not use the appliance if there is any doubt, but contact a qualified technician
- Even before unpacking, the appliance should be handled with care and stored in a dry place at temperatures between -5°C and +40°C
- Before carrying out any maintenance on the appliance, cut off the mains power
- Special attention should be paid to the preparation of the cable terminals to be inserted into the appliance terminals so as to maintain sufficient isolation distance between contacts
- When tightening the terminal screws, special care should be taken to avoid overheating which could start a fire or damage the cables.
- The product must be used in dry, dust-free areas
- Suitable products must be used in any other conditions
- There is a risk of electric shock or malfunction of the device if not handled properly.
- Install products and accessories according to the prescriptions in the catalogue and the instructions sheet and in compliance with specific standards and rules
- Warranty certificate for a specific product, which specifies the warranty period and conditions in accordance with local regulations, is issued by the seller at the moment of sale of product



The manufacturer's warranty: The 5 year warranty applies only to damaged or malfunctioning products caused by manufacturer's negligence, taking into account the rights and obligations prescribed by law (art. 1490, 1512 C.C., DL 24/2002, Directive 1999/44/CE, art. 1519 C.C.). The defect must be notified within 2 month from the date it was discovered. Five years are intended from the date of delivery of the product to the final customer.