

# BHC4002 Controller Dimmer



## Use

This dimmer/output regulator is intended for regulating 14-100% of the heat intensity of electric radiant heaters, and for regulating the light intensity of lights attached to it (in general: resistive devices/loads) such as living room lamps etc. that are equipped with normal light bulbs with a maximum output of 4.000 W and are connected to a 230 V AC power supply.

The dimmer/output regulator may not be used with fluorescent lights, low-energy bulbs, halogen transformers or the like. Electric motors may also not be used with this dimmer/output regulator.

Usage other than that described above can lead to damage to the dimmer or damage to the attached electrical device. In addition, this is associated with other risks, such as short circuit, fire, electric shock, etc. The entire product may not be changed or rebuilt. The safety instructions should be read and observed.

When using with electrical devices that have an individual power consumption of more than 1,500 W, especially radiant heaters with more than 1,500 W of individual power consumption, it is recommended that you use a separate, inertial C fuse. With a power consumption greater than 2,000 W, an inertial C fuse is necessary. Never use electrical devices with a total output of greater than 4.000 W.

## Mounting

The dimmer/output regulator may only be securely installed/mounted to a solid and non-flammable, non-pliant surface (such as a concrete wall) by means of screws. Due to the high temperature on the backside of the dimmer/output regulator near the cooling fins, a minimum distance of 10 mm must be maintained between the dimmer/output regulator and the wood or wallpaper, by means of spacers below the mounting hole. Before the dimmer/output regulator is mounted, it should be disconnected from a 230 V power supply. A standard extension cord or a cable drum must not be used with the dimmer/output regulator.

## Safety instructions

The dimmer/output regulator is equipped with a grounding conductor and may only be connected to and operated with 230 V AC networks with protective earthing. Please ensure that the power cable is not damaged and the grounding conductor is not interrupted, as an interrupted grounding conductor in the event of a fault can be hazardous or lethal. It should also be ensured that the cable insulation is not damaged or destroyed. The dimmer/output regulator should be kept out of reach of children.

In commercial establishments, the accident prevention regulations prescribed by the professional associations regarding electrical systems and buildings and plants are to be observed. In schools, training institutes, hobby and self-help workshops, the dimmer/output regulator should be monitored by a trained member of staff. Check your dimmer/output regulator periodically for damage.

Do not use the dimmer/output regulator in rooms or in operating conditions in which flammable gases, vapours or dusts are present, or might be present.

For your own safety, avoid allowing the dimmer/output regulator or its surroundings (attached electrical devices) to get damp or wet. The dimmer/output regulator may only be mounted and used in dry rooms.

If it is impossible to ensure hazard-free operation of the dimmer/output regulator, the device should be switched off and protected from accidental use. It may be assumed that hazard-free operation is no longer possible if: - the device displays visible damage, - the device no longer operates, and - after long periods of storage under unfavourable conditions, or - after heavy transportation stress.

Never use your dimmer/output regulator immediately after it is moved from a cold to a warm room. The condensation that accompanies such a temperature change may destroy your dimmer under such conditions. Always allow your dimmer/output regulator to reach room temperature before being switched on.

### Connection, starting up

After the dimmer/output regulator has been successfully mounted/installed, ensure that the on/off switch is switched to 0=OFF before plugging the power cable into the wall outlet or before attaching electrical devices to the dimmer/output regulator. Before an electrical device is attached, turn the knob in an anti-clockwise direction all the way. Attach the electrical device(s) to the dimmer/output regulator earthing contact power point, and always switch this device on using the 0/1 or ON/OFF switch, by turning the knob all the way to the left. Adjust the heat or light intensity to your needs by using the knob:

Knob position left (anti-clockwise = all the way to the left) means: 14% of the device output  
- Knob position right (clockwise = all the way to the right) means: 100% of the device output.

### Connection terminals:

**E = Earth / N = Neutral / L = Phase**

## Troubleshooting

The dimmer/output regulator you have purchased is at the cutting edge of technology. Nevertheless, disturbances may occur. For this reason, the following passage describes how you can get rid of some of these disturbances yourself, relatively easily:

### Possible cause of the problem

Is the attached electrical device plugged in and turned on?  
Is the light bulb screwed in tightly, or is the radiant heater functional?

### Note:

**Opening covers or removing parts, except when done by hand, can expose components that carry a live electrical charge. Connection points may also carry a live electrical charge.**

**Before maintenance or repair, or before components or modules are replaced, the device must be disconnected from all current if the device has to be opened. If maintenance or repair of the opened device while attached to electrical current is unavoidable, it must be carried out by a trained professional who is familiar with such devices and with the applicable regulations. Components in the device may still carry a charge even when the device has been disconnected from all power sources.**

### Maintenance

The dimmer/output regulator is maintenance-free, except for the periodic dusting and cleaning of the casing. It should never be opened or taken apart. In the event that the device is opened, the warranty claim becomes invalid. A clean, dry, lint-free, anti-static cloth should be used for cleaning.

### Note:

**Do not use cleaning solutions containing carbon, benzene, alcohol or similar solutions to clean the device. These solutions corrode the casing. Furthermore, the fumes of such solutions are harmful to health and explosive. Do not use pointed or sharp-ended tools, screwdrivers or metal brushes to clean the casing.**

### Technical data

Operating voltage : 230 V AC, 50 Hz  
Switching capacity : max. 4.000 W, resistive load  
(only light bulbs and radiant heaters)  
Adjustment range: 14-100%  
Operating temperature range : 0 to + 40°C  
Dimensions (W x H x D) : approx. 94 x 239 x 90 mm

