

GRÄSSLIN

by **INTERMATIC**

EN Operating manual



thermio™ eco B2B/B4B



This manual ensures safe and efficient use of the “thermio™ eco B2B” or “thermio™ eco B2B B4B” countdown timer (referred to as “device” in the following). This manual is a component of the device and must remain accessible at all times for everyone who uses the device.



Everyone who uses the device must have read and understood this manual before commencing any work. The basic prerequisite for working safely is compliance with all safety instructions and usage instructions specified in this manual. Furthermore, the local accident prevention regulations and the general safety regulations in the area in which the device is operated apply.

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Declaration of conformity and download instructions

The declaration of conformity for the device described in this manual, a download of this manual, and the technical data can be found at www.graesslin.de.

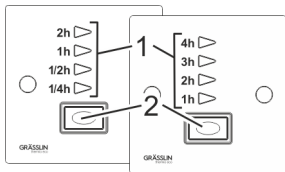
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Overview



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Fig. 1: Overview of “thermio™ eco B2B” (left) and “thermio™ eco B4B” (right)

- 1** LEDs for time intervals
- 2** *[Boost]* button



Description of function

“thermio™ eco B2B” and “thermio™ eco B4B” are countdown timers with selectable, predefined periods. The connected devices are supplied with electricity during the set periods. When the period ends, the connected device is switched off.

The set periods are displayed by LEDs (Fig. 1/1) and can be selected using the *[Boost]* button.

Adjustable periods

- “thermio™ eco B2B” countdown timer
 - 1/4 h (15 min), 1/2 h (30 min), 1 h and 2 h
- “thermio™ eco B4B” countdown timer
 - 1 h, 2 h , 3 h and 4 h



Elements	Function
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LEDs	Display the selected period that is currently counting down
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<i>[Boost]</i> button	Select and activate the period
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The following components are included in the contents:

Number	Designation
1	Countdown timer “thermio™ eco B2B” or “thermio™ eco B4B”
2	3.5 mm screws
1	Strain relief clamps
2	Screw covers
1	Screw terminal (optional)



Safety

Safety instructions

Safety instructions are indicated in this manual by symbols. The safety instructions are introduced by signal words that express the extent of the danger.

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WARNING!

This combination of symbol and signal word indicates a potentially dangerous situation that may result in death or severe injuries if the situation is not avoided.



NOTICE!

This combination of symbol and signal word indicates a potentially dangerous situation that may result in material damage if the situation is not avoided.



ENVIRONMENT!

This combination of symbol and signal word indicates potential dangers for the environment.



Tips and recommendations



This symbol highlights useful tips and recommendations, as well as information for efficient and fault-free operation.

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Intended use

“thermio™ eco B2B” and “thermio™ eco B4B” are countdown timers with selectable, predefined periods for supplying power to connected devices in private and commercial areas. The connected devices must comply with the limits specified in the technical data.



Areas of application:

- Electric radiators and heating elements
- Oil radiators
- Electric towel rails
- Heating systems
- Hotplates
- Fan heaters
- Lighting (**not** discharge lamps)

The intended use also includes compliance with all information specified in this manual.

Any use other than the intended use is considered incorrect use.



Wire cross-section



WARNING!

Danger due to insufficient wire cross-section!

If wires with an insufficiently large cross-section are used, short circuits or fires may occur.

- Only use terminals with a cross-section between 1 mm² and 2.5 mm² for flexible wires.



WARNING!

Risk of injury due to uncontrolled behaviour of connected loads!

- Before starting the device, check whether the connected load could cause hazardous situations for persons.



NOTICE!

Damage to the device due to unsuitable installation location!

Installation at an unsuitable location can cause damage to the device.



- Only use the device in dry rooms and do not install close to devices with inductive discharge (motors, transformers, etc.).

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Residual risks

The device is state-of-the art and designed in accordance with current safety requirements. However, residual risks remain that require caution when using the device. The residual risks, and the conduct and measures they require, are listed in the following.



WARNING!

Danger to life due to electric shock!

Improper assembly and installation of the device can lead to life-threatening electrical voltages.

- Have assembly and connection performed by a qualified electrician only.



Personnel requirements

Qualified electrician

Professional training, knowledge and experience, and knowledge of the relevant standards and regulations allows the qualified electrician to perform work on electrical systems and to identify, and avoid, potential dangers of their own accord.

A qualified electrician is specifically trained for the work environment in which they work, and are familiar with the relevant standards and regulations.

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User

The user is the person who uses and operates the device in compliance with proper use, without any prior knowledge.

Installation

Electric connection and installation

The device is installed on a flush-mounted socket (BS 4662 or BS 5733). The connection wire is either routed out of the flush-mounted socket or it is routed to the device on the wall.

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In general, the following instructions apply to both installation types. Where there are differences, the corresponding installation type is specified before the instructions.



WARNING!

Danger to life due to electric shock!

Improper assembly and installation of the device can lead to life-threatening electrical voltages.

- Have assembly and connection performed by a qualified electrician only.

Personnel:

-  Qualified electrician

Special tool:

- Flat-head screwdriver

Materials:

- 3.5 mm screws

Prerequisite:

- The terminals for the flexible wires must have a cross-section between 1 mm² and 2.5 mm².
 - Make sure that the flush-mounted socket has been installed correctly and is dust-free.
1. On-wall connection wires: Undo the strain relief screws (Fig. 2/4) on the rear of the device and place to one side.
 2. Remove the plastic cover.
 3. Strip the insulation from the connection wire.
 - Stripping length: 8 mm

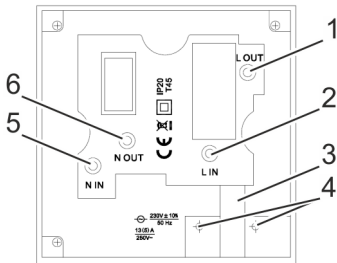


Fig. 2: Wiring diagram

- 1 **Switchable live wire (OUT)**
 - 2 **Live wire (IN)**
 - 3 **Cable feed-through**
 - 4 **Screws for strain relief clamp**
 - 5 **Neutral (IN)**
 - 6 **Neutral (OUT)**
4. Insert the connection wires into the corresponding terminals in accordance with the wiring diagram (Fig. 2).

5.

**NOTICE!****Tightening torques**

To avoid damage and faulty contacts, tighten the terminals using a torque of **0.6 Nm**.

Tighten all the terminals.

6. On-wall connection wires: Thread the connection wires into the device through the cable feed-through (Fig. 2/3).
7. On-wall connection wires: Tighten the strain relief clamp from the contents using the screws for the strain relief clamp (Fig. 2/4).

**NOTICE!****Danger of material damage to the wires!**

When screwing the device tight, there is a risk of pinching wires. This results in material damage to the wires.

- To avoid damage and faulty contacts, make sure that the wires are not pinched when you insert the device into the flush-mounted socket.

8. Fasten the device onto the flush-mounted socket using the screws (3.5 mm).
9. Insert the screw covers.



Operation

You can use the *[Boost]* button to select a period in which the connected loads are switched on.

Personnel:

- User

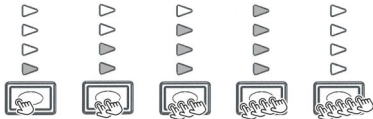


Fig. 3: LED display *[Boost]* button

1. Press the *[Boost]* button until your desired period is set (Fig. 3).



[Boost] button	Period (B2B)	Period (B4B)
Press first time	1/4 h (15 min)	1 h
Press second time	1/2 h (30 min)	2 h
Press third time	1 h	3 h

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[Boost] button	Period (B2B)	Period (B4B)
Press fourth time	2 h	4 h
Press fifth time	No period set	No period set

- ⇒ The LEDs display the set period and the power supply to the load is switched on. The preselected time until the automatic switch-off begins to count down.



The illuminated LEDs provide information about the remaining time. In the final 2 minutes of a period, the corresponding LED flashes and then goes out once the period has expired completely.

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Disposal



ENVIRONMENT!

Incorrect disposal presents an environmental danger.

Incorrect disposal could result in environmental dangers.

- Electric scrap and electronic components must be disposed of correctly, i.e. the parts for disposal must be sorted into material groups.



- Disposal must be environmentally responsible and must employ state-of-the-art environmental protection, recycling and disposal technology.

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