



TIMER / SENSORS WITH TIMER



TE 1.5 / TI 1.5
HSE 1.5 / HSI 1.5
LSE 1.5 / LSI 1.5
IRSE 1.5 / IRSI 1.5



OPERATION MANUAL

 **BLAUBERG**
Ventilatoren

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INTRODUCTION

The present operation manual contains technical description, technical data sheets, operation and mounting guidelines, safety precautions and warnings for safe and correct operation of the device.

Read carefully the operation manual, especially the safety requirements before mounting and start-up of the device. Keep the operation manual available as long as you use the device.

GENERAL

The timer / sensor with a timer is designed for the automation of a control system applied for domestic fan operation, depending on humidity and light conditions as well as the motion sensor or actuation of an external switch. Depending on the model the device is designed for surface or flush mounting.

SAFETY RULES

Cut off power supply to the device prior to any operations. All mounting and maintenance operations must be carried out by duly qualified electricians with a valid electrical work permit for electric operations after careful study of the user's manual.

Misuse of the device or any unauthorized modification are not allowed. Follow the manual guidelines to ensure trouble-free operation and long service life of the device.

STORAGE AND TRANSPORTATION RULES

Transportation is allowed by any vehicle provided the product is transported in the original package and is protected against weather and mechanical damages.

Store the delivered product in the manufacturer's original packing box in a dry ventilated premise.

The storage environment must not be subjected to any aggressive and/or chemical evaporations, admixtures, foreign objects that may provoke corrosion and damage connection tightness.

Store the product in an environment with minimized risk of mechanical damages, temperature and humidity fluctuations at the ambient temperature from +5°C up to +40°C.

MANUFACTURER'S WARRANTY

The product complies with the requirements according to the EU norms and directives, to the relevant EU-Low Voltage Equipment Directives, EU-Directives on Electromagnetic Compatibility.

We hereby declare that the following product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

The manufacturer hereby warrants normal operation of the product over the period of 2 years from the retail sale date provided observance of the installation and operation regulations.

In case of failure due to manufacturing fault during the warranty period the consumer has the right for the device repair or exchange. The replacement is offered by the Seller. If case of no confirmation of the sale date, the warranty period shall be calculated from the manufacturing date.

The MANUFACTURER shall not be liable for any damage resulting from any product misuse of or gross mechanical interference with it.

The MANUFACTURER is not responsible for the damages resulted due to the use of third party equipment or to third party equipment.



WARNING

The product is not allowed for use by children and persons with reduced physical, mental or sensory capacities, without proper practical experience or expertise, unless they are controlled or instructed on the product operation by the person(s) responsible for their safety. Supervise the children and do not let them play with the product.

WARNING



Do not dispose in domestic waste. The product contains in part material that can be recycled and in part substances that should not end up as domestic waste. Dispose the product once it has reached the end of its working life according to the regulations valid in your country.

DELIVERY SET

- ✓ Timer or sensor with timer - 1 item;
- ✓ Screws and dowels:
 - 2 sets for wall surface mounting;
 - 4 sets for wall flush mounting.
- ✓ Operation manual - 1 item;
- ✓ Packing box - 1 item.

TECHNICAL DATA

Table 1. Technical data

Parameters	TE 1.5	HSE 1.5	LSE 1.5	IRSE 1.5
	TI 1.5	HSI 1.5	LSI 1.5	IRSI 1.5
Supply voltage, 50 Hz [V]	220-240			
Load current [A]	1.5			
Output power [VA]	330			
Operating humidity range [°C]	from +1 up to +45			
Ingress Protection Rating	IP30			
Overall dimensions [mm]	162x80x70			

DESIGN

The casing is made of plastic. The front panel design is shown in fig. 1:

- 1 - operation light indicator
- 2 - photosensor (only for LSE/LSI)
- 3 - control knob for setting turn-off delay time from 2 up to 30 minutes
- 4 - control knob for setting humidity level (only for HSE/HSI) or illumination intensity (only for LSE/LSI)
- 5 - motion sensor (only for IRSE/IRSI)

The TE / HSE / LSE / IRSE models are for the wall surface mounting and the TI / HSI / LSI / IRSI models are for flush mounting.

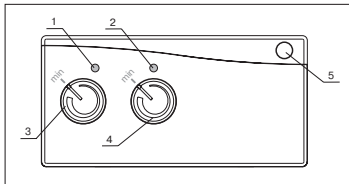


Fig. 1. Design

Turn-off delay timer TE/TI 1.5

After the external switch, for example, a light switch, sends a control signal to the LT input terminal, the timer applies voltage to the connected fan.

When the control voltage is off the timer keeps sending power supply to the fan within the set time period adjustable from 2 up to 30 minutes.

Humidity sensor with timer HSE/HSI 1.5

After the external switch, for example, a light switch, sends a control signal to the LT input terminal or if the indoor humidity exceeds the set point adjustable from 60% up to 90%, the humidity sensor applies voltage to the connected fan.

When the control voltage is off or in case of the indoor humidity drop below the set point, the humidity sensor with timer keeps sending power supply to the fan within the set time period adjustable from 2 up to 30 minutes.

Photo sensor with timer LSE/LSI 1.5

After the external switch, for example, a light switch, sends a control signal to the LT input terminal or if the illumination intensity in the room exceeds the set point, the photo sensor applies voltage to the connected fan.

When the control voltage is off or if the illumination intensity decreases, the photo sensor with timer keeps sending power supply to the fan within the set time period adjustable from 2 up to 30 minutes.

Motion sensor with timer IRSE/IRSI 1.5

After the external switch, for example, a light switch, sends a control signal to the LT input terminal or in case of the motion registration in the sensitivity area from 1 up to 4 meters with the horizontal viewing angle 100°, the motion sensor applies voltage to the connected fan.

When the control voltage is off or when no motion more is detected, the motion sensor with timer keeps sending power supply to the fan within the set time period adjustable from 2 up to 30 minutes.

OPERATION MODES

The timer and the sensor with timers have three operation modes:

Standby mode - the timer/sensor with timer receives no signal from sensors or from the external switch. The connected fan does not run. The light indicator on the front panel blinks red once in 5 seconds.

Active mode is activated by operation of the motion sensor, closing of the external switch, response of the humidity sensor or photo sensor. The connected fan runs. The light indicator on the front panel has permanent glow.

Timer mode is activated after no response of the motion sensor, opening of the external switch, decrease of the humidity or illumination intensity below the set point.

The timer operation duration is individually adjustable. The connected fan runs. The light indicator blinks once in 1 second.

The timer/sensor with timer have a permanent connected load monitoring function.

1. The light indicator glows green in rated operation conditions when the load current up to 1.5 A.

2. The light indicator glows red when the load current is from 1.5 up to 1.9 A. During this load current the equipment operates in heavy duty operation mode.

The heavy-duty operation mode decreases the

service life of the timer/ sensor with timer. To avoid that, it is recommended to decrease the connected load down to max. 1.5 A.

3. The light indicator blinks red once in 5 seconds in emergency operation mode, when the load current exceeds 1.9 A. In this case the connected load is switched off.

To restart the timer/ sensor with timer first disconnect the device from power mains at least for 10 seconds and connect a fan with current consumption not exceeding 1.5 A to the device.

MOUNTING



WARNING

*Make sure that the device is not damaged. Do not use a damaged device!
Do not install the device on an uneven surface!
While tightening the screws avoid overtightening not to damage the device.*

The timer / sensor with timer mounting procedure depends on the casing design, either surface mounting (TE / HSE/ LSE / IRSE models), fig. 2 or flush mounting (TI / HSI / LSI / IRSI models), fig. 3.

Surface mounting (TE / HSE/ LSE / IRSE models):

1. Remove the decorative cover, fig. 2.1.
2. Remove 4 fixing screws from the front cover, fig. 2.2.
3. Route the cable in the wall to the installation place.
4. Lean the casing against the wall and mark the openings for the dowels, fig. 2.3.
5. Drill the holes in the wall and install 5x25 dowels, fig. 2.4.
6. Route the wires through the openings in the casing.
7. Fix the casing to the wall using two 3x25 screws, fig. 2.5.
8. Strip the wires for 7-8 mm.
9. Connect the wires to the terminal blocks in compliance with the wiring diagram, fig. 4.

10. Fix the front panel using the four screws from the delivery set and install the decorative cover, fig. 2.6.

Flush mounting (TI / HSI / LSI / IRSI models):

1. Remove the decorative cover, fig. 3.1.
2. Remove 4 fixing screws from the front cover, fig. 3.2.
3. Prepare a recess in the wall for installation of the casing, fig. 3.3.
4. Route the cable in the wall to the installation place.
5. Install the casing into the recess and mark the holes for the dowels, fig. 3.4.
6. Drill holes in the wall and insert 5x25 dowels, fig. 3.5.
7. Route the wires through the electric lead-ins in the casing.
8. Fix the casing in the wall with two 3x25 screws, fig. 3.6.
9. Strip the wires for 7-8 mm.
10. Connect the wires to the terminal blocks in compliance with the wiring diagram, fig. 4.
11. Fix the front panel using the four screws from the delivery set and install the decorative cover, fig. 3.7.

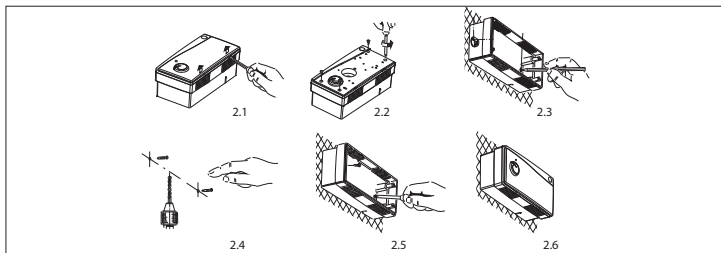


Fig. 2. TE / HSE / LSE / IRSE mounting

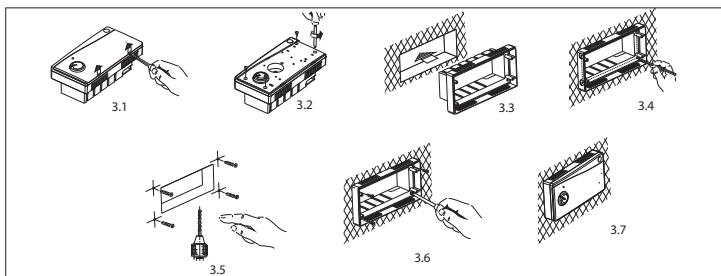


Fig. 3. TI / HSI / LSI / IRSI mounting

CONNECTION TO POWER MAINS



WARNING

Cut off power supply prior to any operations with the device. All mounting and servicing operations are allowed for duly qualified electricians with valid electrical work permit for electric operations after careful study of the present user's manual.

For connection of the timer / timer with sensor, follow the wiring diagram, fig. 4.

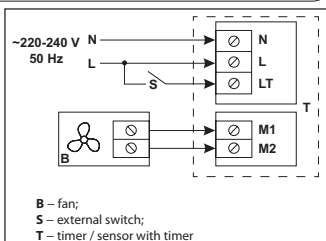


Fig. 4. Wiring diagram

TROUBLESHOOTING AND FAULT HANDLING

Fault	Possible reason	Troubleshooting
The device is out of operation.	No power supply or wrong connection to power mains.	Make sure of the correct connection to power mains, otherwise troubleshoot the connection error.

ACCEPTANCE CERTIFICATE**The product**

TE 1.5		HSE 1.5		LSE 1.5		IRSE 1.5	
TI 1.5		HSI 1.5		LSI 1.5		IRSI 1.5	

is recognizes as serviceable.

The product complies with the requirements according to the EU norms and directives, to the relevant EU-Low Voltage Equipment Directives, EU-Directives on Electromagnetic Compatibility. We hereby declare that the following product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. This certificate is issued following test carried out on samples of the product referred to above.

Assessment of compliance of the product with the requirements relating to electromagnetic compatibility was based on the following standards.

Approval mark _____

Manufacturing date _____

CONNECTION CERTIFICATE**The product**

TE 1.5		HSE 1.5		LSE 1.5		IRSE 1.5	
TI 1.5		HSI 1.5		LSI 1.5		IRSI 1.5	

is connected to power mains in compliance with the operation manual requirements by the professional:

Company _____

Name _____

Date _____ Signature _____

WARRANTY CARD

TE 1.5		HSE 1.5		LSE 1.5		IRSE 1.5	
TI 1.5		HSI 1.5		LSI 1.5		IRSI 1.5	

SELLER**SALES DATE****REPRESENTATIVE IN EU**

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