



ELECTRONIC FAN SPEED CONTROLLER

Mounting and operating instructions



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SAFETY AND PRECAUTIONS



Read all the information, the datasheet, mounting and operating instructions and study the wiring and connection diagram before working with the product. For personal and equipment safety, and for optimum product performance, make sure you entirely understand the content before installing, using or maintaining this product.



For safety and licensing (CE) reasons, unauthorised conversion and /or modifications of the product are inadmissible.



The product should not be exposed to abnormal conditions, such as extreme temperatures, direct sunlight or vibrations. Long-term exposure to chemical vapours in high concentration can affect the product performance. Make sure the work environment is as dry as possible and avoid condensation.



All installations shall comply with local health and safety regulations, local electrical standards and approved codes. This product can only be installed by an engineer or a technician who has expert knowledge of the product and of the safety precautions.



Avoid contact with energised electrical parts. Always disconnect the power supply before connecting, servicing or repairing the product.



Always ensure that the product is powered properly and that the wire size and characteristics are appropriate. Make sure that all the screws and nuts are well tightened and fuses (if any) are fitted well.



Recycling of equipment and packaging should be taken into consideration and these should be disposed of in accordance with local and national legislation / regulations.



If you have any further questions, please contact your technical support or consult a professional.

PRODUCT DESCRIPTION

The LT speed controller provides manual control of the rotational speed of voltage controllable (230 VAC / 50 Hz) motors by varying the supply voltage through phase angle control. Several motors can be connected as long as the current limit is not exceeded.

ARTICLE CODES

OUTPUT REGULATION FROM MINIMUM TO MAXIMUM		
Code	Current range, [A]	Fuse, [A] (5*20 mm)
LTY-0-05-AT	0,05—0,5	F-0,63 A-H
LTY-0-15-AT	0,1—1,5	F-2,00 A-H
LTY-0-25-AT	0,2—2,5	F-3,15 A-H
LTY-0-40-AT	0,4—4,0	F-5,00 A-H
OUTPUT REGULATION FROM MAXIMUM TO MINIMUM		
Code	Current range, [A]	Fuse, [A] (5*20 mm)
LTX-0-05-AT	0,05—0,5	F-0,63 A-H
LTX-0-15-AT	0,1—1,5	F-2,00 A-H
LTX-0-25-AT	0,2—2,5	F-3,15 A-H
LTX-0-40-AT	0,4—4,0	F-5,00 A-H

INTENDED AREA OF USE

- Manual control of the motor / fan speed in HVAC applications
- For indoor use only

TECHNICAL DATA

- Power supply: 230 VAC ±10 % / 50 Hz
- Unregulated input / output: 230 VAC / max. 2 A
- Regulated output to motor(s)
- Minimum speed adjustment by trimmer: 80—180 VAC
- Speed control:
 - ▶ LTX – from maximum to minimum
 - ▶ LTY – from minimum to maximum
- Enclosure:
 - ▶ External: ASA, white-ivory (RAL9010), IP54 (according to EN 60529)
 - ▶ Internal: polyamide, white-ivory (RAL9010), IP44 (according to EN 60529)
- Operating ambient conditions:
 - ▶ temperature: 0—35 °C
 - ▶ rel. humidity: < 100 % rH (non-condensing)
- Storage temperature: -10—40 °C

STANDARDS

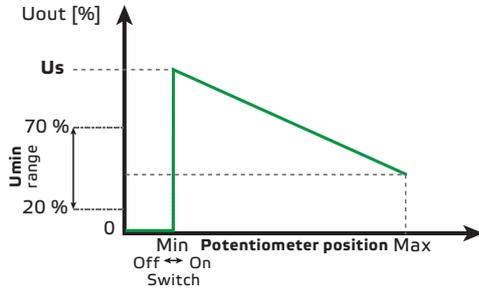
- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC: EN 61326
- RoHs Directive 2011/65/EU



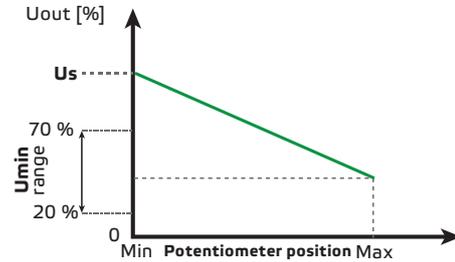
OPERATIONAL DIAGRAMS

LTX series (from maximum to minimum)

OFF position enabled: supply voltage connected to ↑ and N

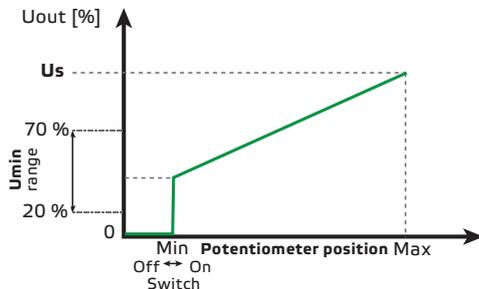


OFF position disabled: supply voltage connected to ↓ and N

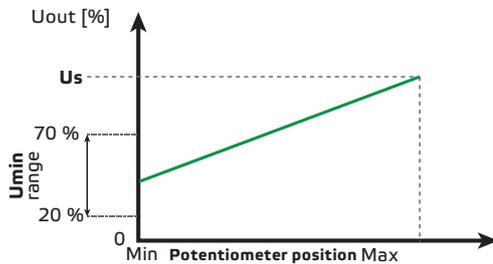


LTY series (from minimum to maximum)

OFF position enabled: supply voltage connected to ↑ and N



OFF position disabled: supply voltage connected to ↓ and N



WIRING AND CONNECTIONS

↑	Power supply (230 VAC ±10 % / 50 Hz)
↓	Unregulated output (230 VAC / max. 2 A) for connecting a lamp, valve ... or three-wire motor connection; branched off after the switch / input: to bypass switch
N	Neutral
	Regulated output to motor
Connections	Cable cross section: max. 2,5 mm ²

NOTE

To disable the OFF position, connect the 230 VAC supply voltage to the unregulated output (↓). In this case, do not connect the power supply to ↑.

MOUNTING INSTRUCTIONS IN STEPS

ATTENTION

Before you start mounting the LT speed controller, read carefully "Safety and Precautions". Then proceed with the following mounting steps:

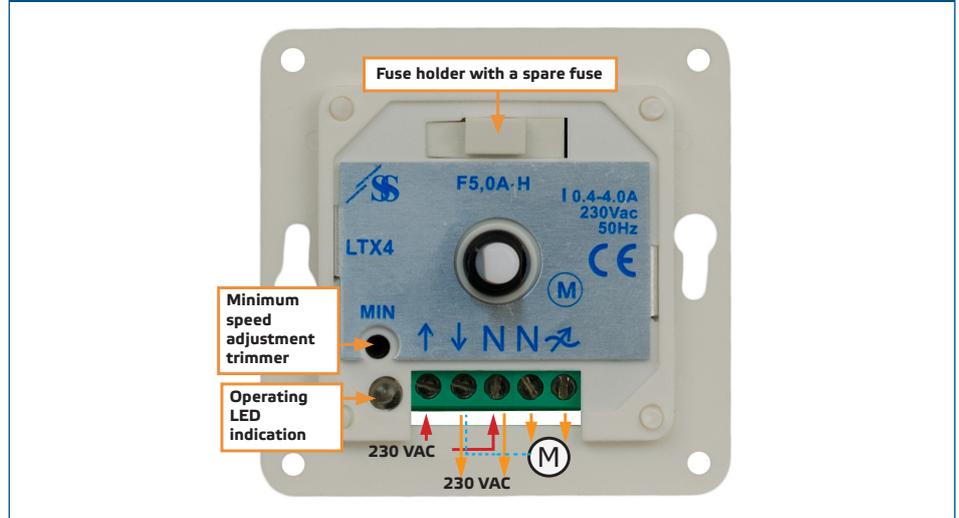
LTX-0-40-AT and LTY-0-40-AT are suited for surface mounting only!

For inset mounting

1. Disconnect the mains supply.
2. Remove the knob by turning it to the right, beyond the stop end and then pull. Open the cover and unscrew the loose nut.
3. Do the wiring according to the wiring diagram (see Fig. 1) using the information

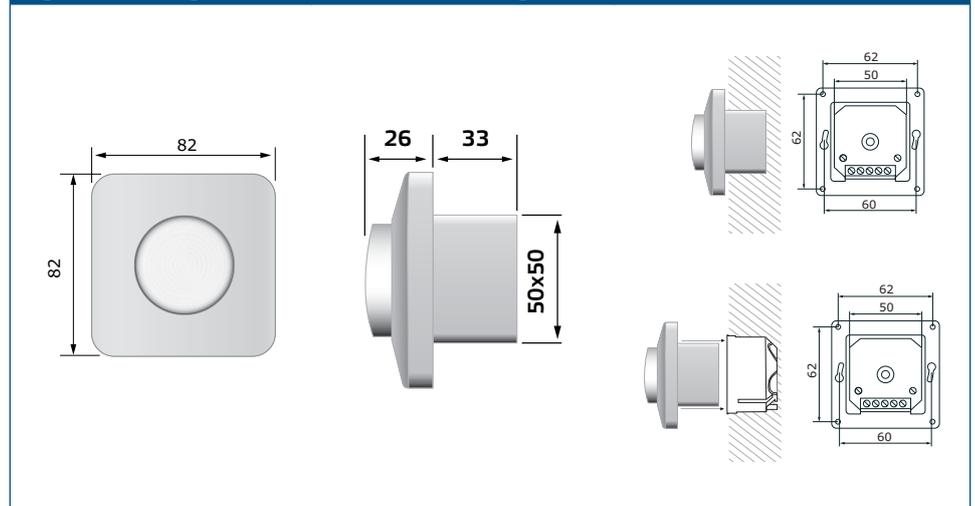
from section “Wiring and connections”.

Fig. 1 Wiring and connections



4. Mount the internal enclosure to the wall according to the mounting dimensions shown in Fig. 2.

Fig. 2 Mounting dimensions - inset mounting

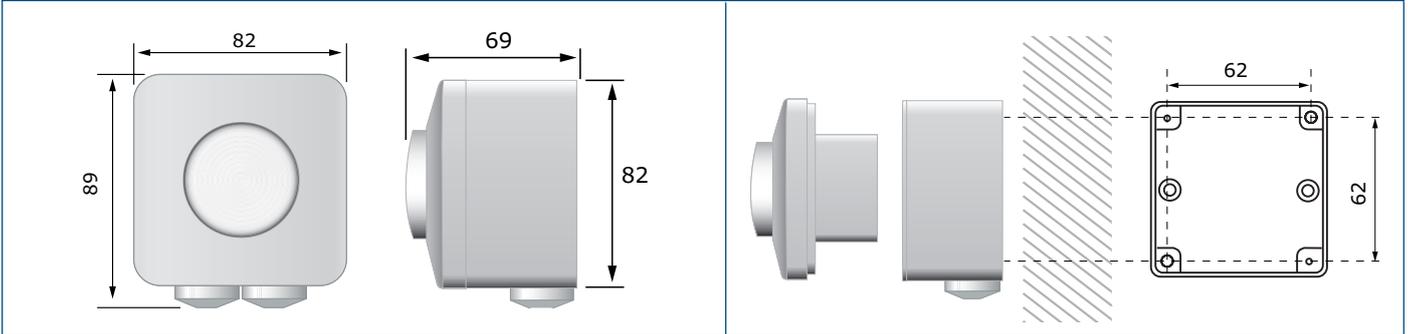


5. Turn on the mains voltage and controller.
6. Adjust the minimal speed and turn off the controller.
7. Mount the cover with the nut.
8. Push the knob in place at off position

For surface mounting

1. Disconnect the mains supply.
2. Mount the external enclosure to the wall by dowels and screws (not delivered). Consider the mounting dimensions shown in Fig. 3.

Fig. 3 Mounting dimensions - surface mounting



3. Remove the knob by turning it to the right, beyond the stop end and then pull. Open the cover and unscrew the loose nut.
4. Do the wiring according to the wiring diagram (see Fig. 1) using the information from section "Wiring and connections".
5. Mount the internal enclosure into the external enclosure by means of the delivered screws and washers.
6. Turn on the mains voltage and controller.
7. Adjust the minimal speed and turn off the controller.
8. Mount the cover with the nut.
9. Push the knob in place at off position.

NOTE

You can drill a hole (5 mm) at the bottom of the external enclosure to take away condensed water.

OPERATING INSTRUCTIONS

The controller is to be used only with voltage controllable fans / motors. You can connect several motors to the controller as long as the current limit is not exceeded. The motor used should be protected internally against overheating. The trimmer is adjusted so that the motor does not stop due to mains voltage variations. The controller restarts after power failure.

In case of faulty operation

- Please check if:
- the right voltage is applied.
 - all connections are correct.
 - the machine to be regulated is functioning.
 - the fuse of the controller is OK.

In case that the fuse has blown up, remove the knob by turning it to the right, beyond the end stop and then pull. Open the cover and unscrew the nut. Remove the fuse holder with the help of a screwdriver. Replace the fuse. Mount all the parts back in place.

ATTENTION

Use only fuses with type and rating specified above; otherwise, loss of warranty will ensue.

TRANSPORT AND STORAGE

Avoid shocks and extreme conditions; stock in original packing.

WARRANTY AND RESTRICTIONS

The warranty against manufacturing flaws is valid for two years starting from the date of delivery. Any alterations or adjustments to the product absolve the manufacturer of all liability. The manufacturer disclaims all liability for typographical or other errors in this document.

MAINTENANCE

In normal conditions this product is maintenance-free. If soiled, clean with a dry or damp cloth. In case of heavy pollution, clean with a non-aggressive product. In these circumstances the unit should be disconnected from the supply. Pay attention that no fluids enter the unit. Only reconnect it to the supply when it is completely dry.