

MT

ELECTRONIC FAN SPEED CONTROLLER

Mounting and operating instructions



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SAFETY AND PRECAUTIONS



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



For safety and licensing (CE) reasons, unauthorised conversion and / or modifications to the product are not permitted.



The product must not be exposed to abnormal conditions, such as: extreme temperatures, direct sunlight or vibrations. Chemical vapours with high concentration in combination with long exposure times can affect the product performance. Make sure the work environment is as dry as possible; check for condensation spots.



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



Avoid contacts with energised electrical parts; always treat the product as if it is life. Always disconnect the power source before connecting the power cables, servicing or repairing the product.



Always verify that you apply appropriate power supply to the product and use wires with appropriate size and characteristics. 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 disposed in accordance with local and national legislation / regulations.



In case there are any questions that are not answered, please contact your technical support or consult a professional.

PRODUCT DESCRIPTION

The MT 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)
MTY-0-05-AT	0,05—0,5	F-0,63 A-H
MTY-0-15-AT	0,1—1,5	F-2,00 A-H
MTY-0-25-AT	0,2—2,5	F-3,15 A-H
MTY-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)
MTX-0-05-AT	0,05—0,5	F-0,63 A-H
MTX-0-15-AT	0,1—1,5	F-2,00 A-H
MTX-0-25-AT	0,2—2,5	F-3,15 A-H
MTX-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

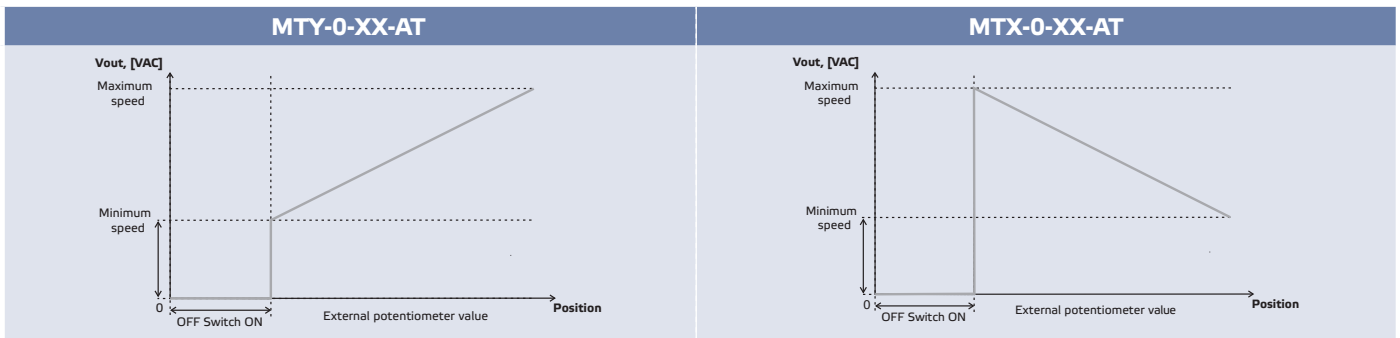
- Power supply: 230 VAC \pm 10 % / 50 Hz
- Unregulated input / output: 230 VAC / max. 2 A
- Regulated output to motor(s)
- Minimum speed adjustment by trimmer: 80—180 VAC
- Speed control:
 - ▶ MTX – from maximum to minimum
 - ▶ MTY – from minimum to maximum
- Enclosure:
 - ▶ External: ASA, white-ivory (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
- WEEE Directive 2012/19/EU
- RoHS Directive 2011/65/EU



OPERATIONAL DIAGRAMS



WIRING AND CONNECTIONS

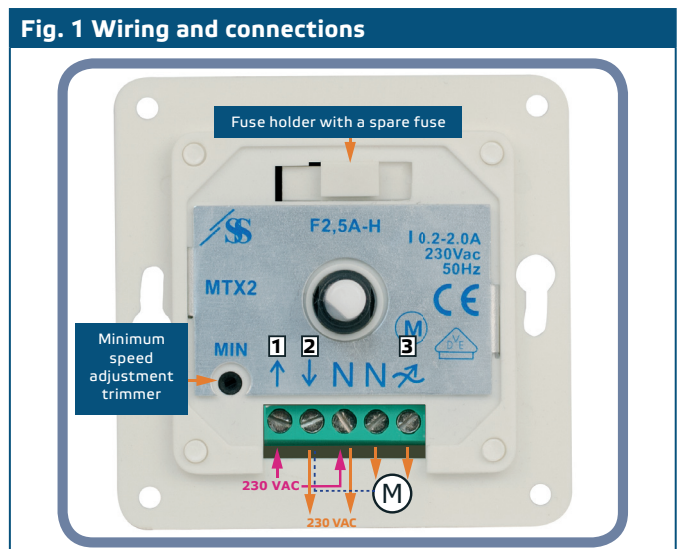
↑	Power supply (230 VAC ± 10 % / 50 Hz)
↓	Unregulated output (230 VAC / max. 2 A) for connecting a lamp, valve ... or three-wire motor connection; branched off after the switch / input: to bypass switch
N	Neutral
	Regulated output to motor
Connections	Cable cross section: max. 2,5 mm ²

MOUNTING INSTRUCTIONS IN STEPS

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

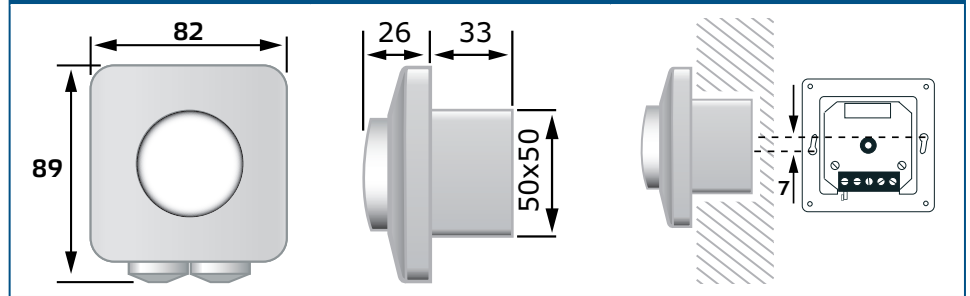
1. For inset mounting

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".



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

Fig. 2 Mounting dimensions - inset mounting

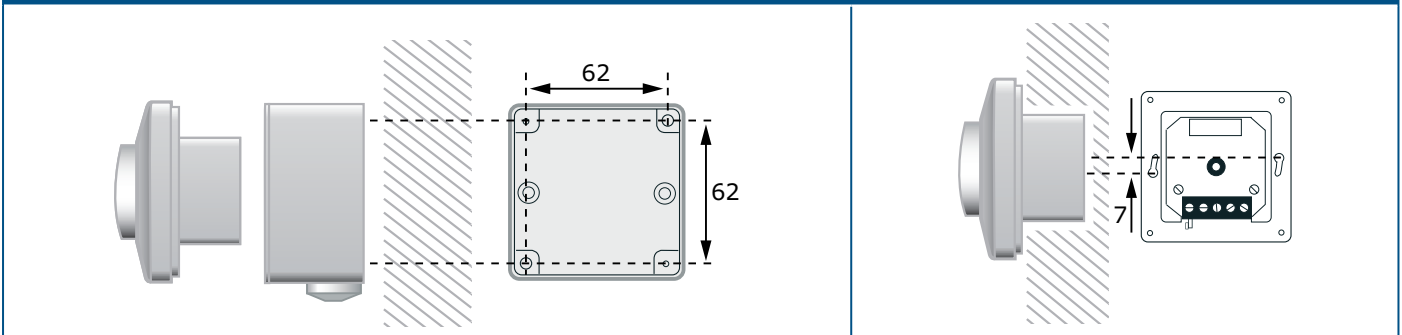


5. Turn on the mains voltage and controller.
6. Adjust the minimal speed and turn off the controller.
7. Mount the cover with the nut.
8. Push the knob in place at off position

II. 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 STOCK KEEPING INFORMATION

Avoid shocks and extreme conditions; stock in original packing.

WARRANTY INFORMATION AND RESTRICTIONS

Two years from the delivery date against defects in manufacturing. Any modifications or alterations to the product after the date of publication relieve the manufacturer of any responsibilities. The manufacturer bears no responsibility for any misprints or mistakes in this data.

MAINTENANCE

In normal conditions this product is maintenance-free. If soiled, clean with a dry or dampish 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.