

# SLM

ELECTRONIC FAN SPEED  
CONTROLLER, 230 VAC WITH A  
LIGHT SWITCH

## Mounting and operating instructions



# Table of contents

|                                                |          |
|------------------------------------------------|----------|
| <b>SAFETY AND PRECAUTIONS</b>                  | <b>3</b> |
| <b>PRODUCT DESCRIPTION</b>                     | <b>4</b> |
| <b>ARTICLE CODES</b>                           | <b>4</b> |
| <b>INTENDED AREA OF USE</b>                    | <b>4</b> |
| <b>TECHNICAL DATA</b>                          | <b>4</b> |
| <b>STANDARDS</b>                               | <b>4</b> |
| <b>WIRING AND CONNECTIONS</b>                  | <b>5</b> |
| <b>OPERATIONAL DIAGRAMS</b>                    | <b>5</b> |
| <b>MOUNTING INSTRUCTIONS IN STEPS</b>          | <b>5</b> |
| <b>TRANSPORT AND STOCK KEEPING INFORMATION</b> | <b>7</b> |
| <b>WARRANTY INFORMATION AND RESTRICTIONS</b>   | <b>7</b> |
| <b>MAINTENANCE</b>                             | <b>7</b> |

## 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 SLM electronic speed controller has a front switch for lighting control. There is a potentiometer and a separate ON/OFF switch with a built-in indicator light. The allowed minimum and maximum speeds can be adjusted internally with the help of little trimmers. There is one unregulated 230 VAC output for a three wire motor connection and one for an electric valve (230 VAC) connection. There are two working modes, internally selectable by placing or removing a jumper on the PCB.

## ARTICLE CODES

| Code        | Rated max. current, [A] | Fuse rating, [A]                                               |
|-------------|-------------------------|----------------------------------------------------------------|
| SLM-0-60-AT | 0,5–6,0                 | <b>F1:</b> F 10,0 A H 250 VAC<br><b>F2:</b> F 5,0 A H 250 VAC  |
| SLM-0100-AT | 0,5–10,0                | <b>F1:</b> F 16,0 A H 500 VAC*<br><b>F2:</b> F 5,0 A H 250 VAC |

## INTENDED AREA OF USE

- Fan speed control of voltage controllable motors in ventilation systems
- For indoor use only

## TECHNICAL DATA

- Power supply: 230 VAC ± 10 % - 50 Hz
- 1 regulated output to the motor
- 2 unregulated outputs:
  - ▶ 1 x 230 VAC, max. 2 A
  - ▶ 1 x 230 VAC, max. 3 A
- Maximum speed setting: 170–230 VAC
- Minimum speed setting: 70–150 VAC
- Kick start or normal start
- Control (on/off) switch for an external light
- Enclosure: plastic R-ABS, UL94-V0; grey colour (RAL 7035)
- Protection standard: IP54 (according to EN 60529)
- Operating ambient conditions:
  - ▶ temperature: 0–35 °C
  - ▶ rel. humidity: < 95 % rH (non-condensing)
- Storage temperature: -10–45 °C

## STANDARDS

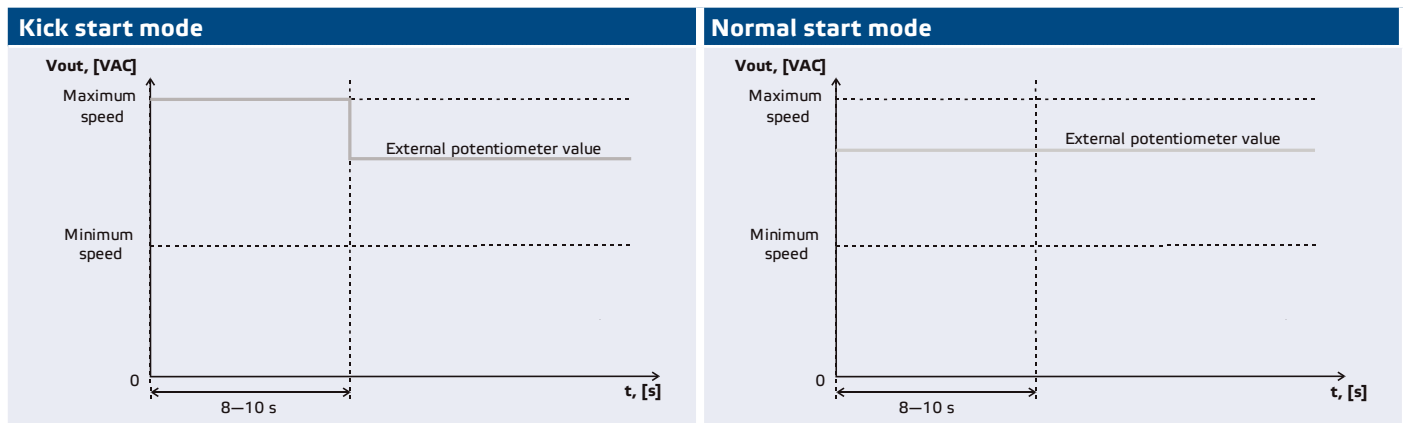
- Low Voltage Directive 2014/35/EC
- EMC Directive 2014/30/EC
- WEEE Directive 2012/19/EU
- RoHs Directive 2011/65/EU



## WIRING AND CONNECTIONS

|             |                                                                                      |
|-------------|--------------------------------------------------------------------------------------|
| LAMP        | Unregulated output (230 VAC / max. 3 A)                                              |
| N           | Neutral                                                                              |
| L, N        | Mains supply 230 VAC $\pm$ 10 % - 50 Hz                                              |
| PE, PE      | Earth terminals                                                                      |
| M, N        | Regulated output to the motor                                                        |
| L1          | Unregulated output (230 VAC / max. 2 A)                                              |
| N           | Neutral                                                                              |
| Connections | Cable cross section: max. 2,5 mm <sup>2</sup><br>Cable gland clamping range: 5–10 mm |

## OPERATIONAL DIAGRAMS



## MOUNTING INSTRUCTIONS IN STEPS

Before you start mounting the SLM controller read carefully **“Safety and Precautions”**. Choose a smooth surface for an installation location (a wall, panel and etc.). Then proceed with the following mounting steps:

1. Switch off the power supply.



**ATTENTION**

*Make sure that the controller and the additional equipment (a lamp, valve) are switched off.*

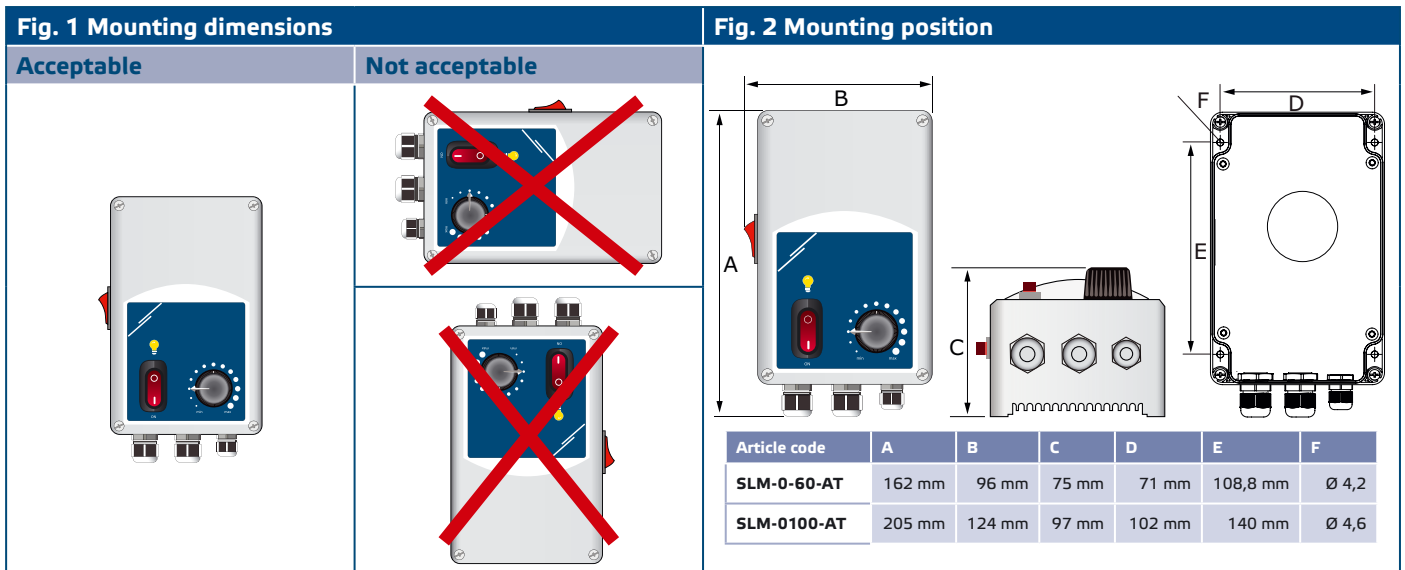
2. Unscrew the four screws on the front cover and open the enclosure.



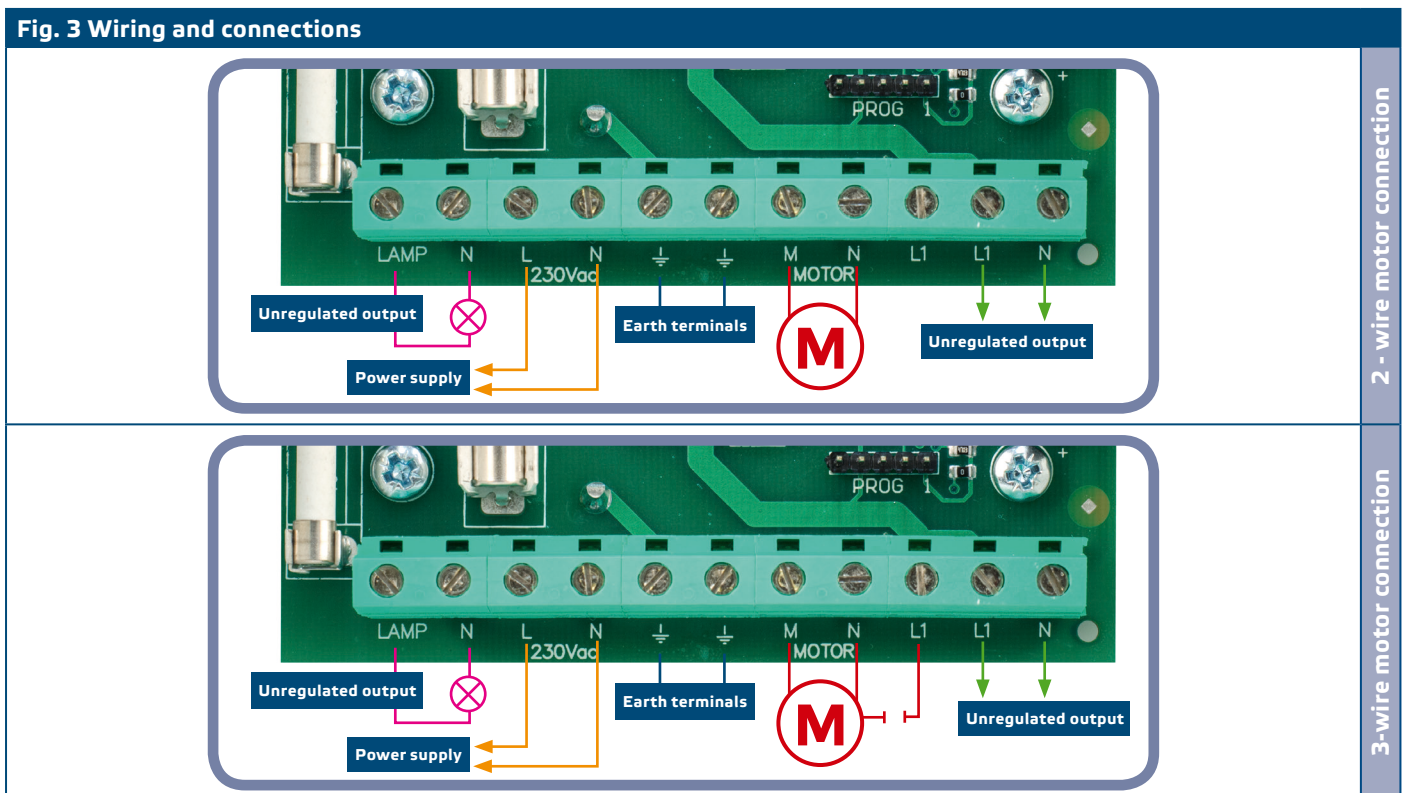
**ATTENTION**

*Mind the two wires connecting the potentiometer and the circuit board.*

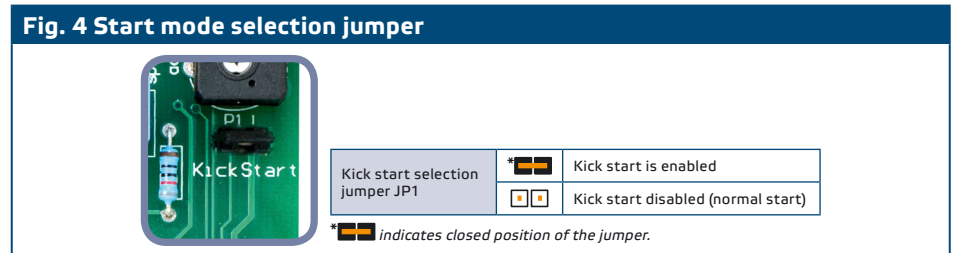
- Fix the unit to the wall or panel using the provided dowels and screws. Take into account the correct mounting position and unit dimensions. (See **Fig. 1 Mounting position** and **Fig. 2 Mounting dimensions**.)



- Do the wiring according to the wiring diagram (see **Fig. 1**) and the information from section **"Wiring and connections"**. Connect the mains, motor(s), lamps and earth cables.



5. Select the desired start mode placing or removing the jumper on the PCB. See **Fig. 4 Start mode selection jumper**. To select normal start remove the jumper; to select kick start leave the jumper open (factory setting).

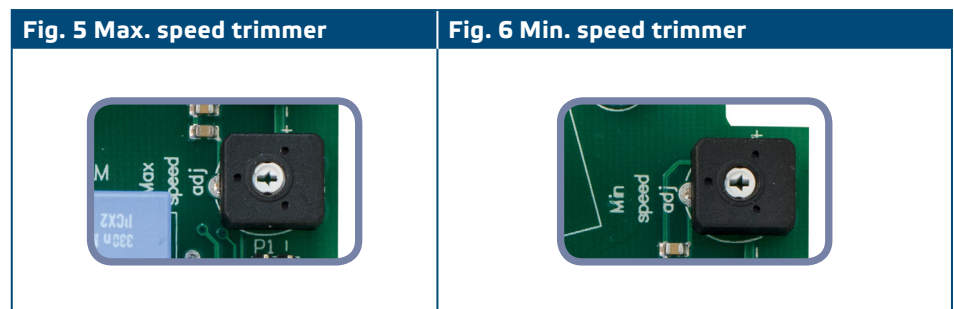


6. Switch on the power supply.

**ATTENTION**

*The next steps are carried out when the unit is energised. Take the relevant safety measures!*

7. Adjust the max. speed by the Max. trimmer (if necessary). The default setting is Us (230 VAC). See **Fig. 5 Max. speed trimmer**.
8. Set the potentiometer at minimum position and adjust the minimum speed with the help of the Min. trimmer, so that the motor runs or restarts smoothly in case of a power fault. The default setting is 100 VAC. See **Fig. 6 Min. speed trimmer**.
9. Close the enclosure and fix the cover.



## 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.

**ATTENTION**

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