



## **SENSOR CONTROL PANEL**

**S22**

**EN**

**USER'S MANUAL**



**BLAUBERG**  
Ventilatoren

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This user’s manual is a main operating document intended for technical, maintenance, and operating staff. The manual contains information about purpose, technical details, operating principle, design, and installation of the S22 unit and all its modifications. Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

# SAFETY REQUIREMENTS

- Please read the user’s manual carefully prior to installing and operating the unit.
- All user’s manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.
- The warnings contained in the user’s manual must be considered most seriously since they contain vital personal safety information.
- Failure to follow the rules and safety precautions noted in this user’s manual may result in an injury or unit damage.
- After a careful reading of the manual, keep it for the entire service life of the unit.
- While transferring the unit control, the user’s manual must be turned over to the receiving operator.

## UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS



- Disconnect the unit from power mains prior to any installation operations.



- Do not operate the unit outside the temperature range stated in the user's manual.
- Do not operate the unit in aggressive or explosive environments.



- Do not lay the power cable of the unit in close proximity to heating equipment.



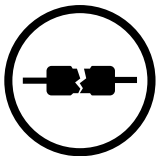
- While installing the unit follow the safety regulations specific to the use of electric tools.



- Do not change the power cable length at your own discretion.
- Do not bend the power cable.
- Avoid damaging the power cable.
- Do not put any foreign objects on the power cable.



- Unpack the unit with care.



- Do not use damaged equipment or cables when connecting the unit to power mains.



- When the unit generates unusual sounds, odour or emits smoke disconnect it from power supply and contact the Seller.



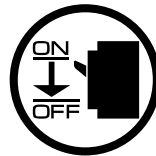
- Do not touch the unit controls with wet hands.
- Do not carry out the installation and maintenance operations with wet hands.



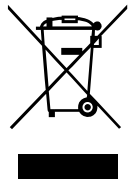
- Do not wash the unit with water.
- Protect the electric parts of the unit against ingress of water.



- Do not allow children to operate the unit.



- Disconnect the unit from power mains prior to any technical maintenance.



**THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.  
DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.**

## PURPOSE



**THE UNIT SHOULD NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL, OR SENSORY CAPACITIES, OR THOSE WITHOUT THE APPROPRIATE TRAINING.**

**THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING.**

**THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORISED ACCESS BY UNATTENDED CHILDREN.**

The wall control panel with a sensor display is designed for controlling industrial and domestic supply and exhaust ventilation units as well as other air handling units.

The control panel is not designed for standalone operation. It is rated for continuous operation.

## DELIVERY SET

### NAME

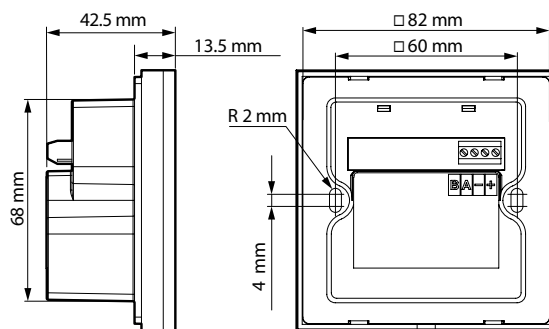
Control panel  
Mounting box for wall surface mounting  
Mounting box for wall flush mounting  
Signal cable, 10 m  
User's manual  
Packing

### NUMBER

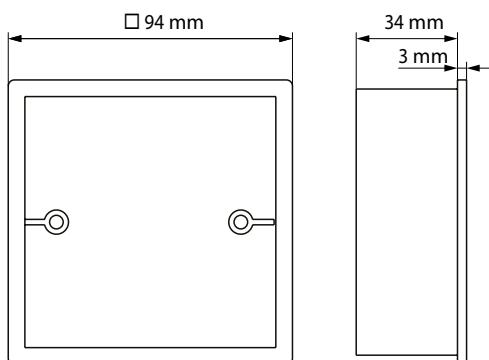
1 pc.  
1 pc.  
1 pc.  
1 pc.  
1 pc.  
1 pc.

**TECHNICAL DATA**

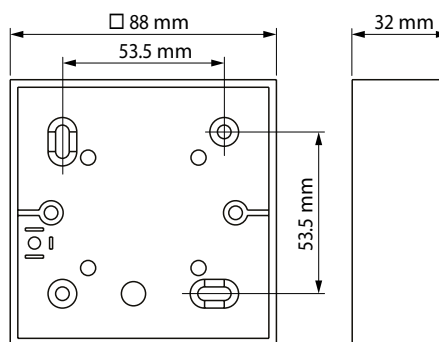
Power supply voltage [V]	24
Maximum load current [A]	0.025
Cable type	4x0.25 mm <sup>2</sup>
Temperature range [°C]	+10...+45
Humidity range [%]	10 - 80 (no condensation)
Ingress protection rate	IP40



**Mounting box for flush wall mounting**



**Mounting box for surface wall mounting**

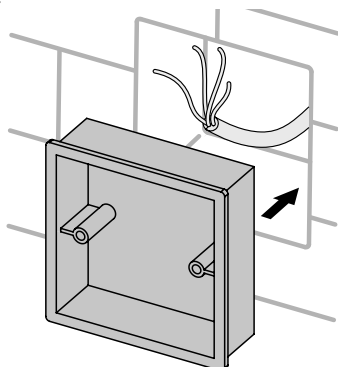


**INSTALLATION AND CONNECTION**

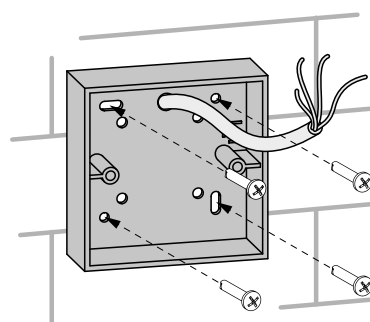
- CHECK THAT THE UNIT IS DISCONNECTED FROM POWER SUPPLY PRIOR TO ANY OPERATIONS!**
- THE UNIT MUST BE MOUNTED BY A QUALIFIED EXPERTS ONLY, PROPERLY TRAINED AND POSSESSING THE REQUIRED TOOLS AND MATERIALS.**
- DO NOT INSTALL THE UNIT ON AN UNEVEN SURFACE! WHEN TIGHTENING THE SCREWS DO NOT APPLY EXCESSIVE FORCES TO AVOID THE UNIT DEFORMATION.**

1. Install the mounting box.

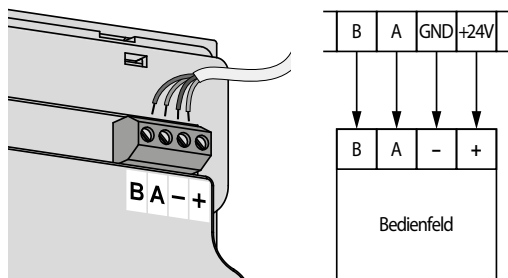
Wall flush mounting: prepare a wall opening, lay required wires and cables to the installation place and install the mounting box.



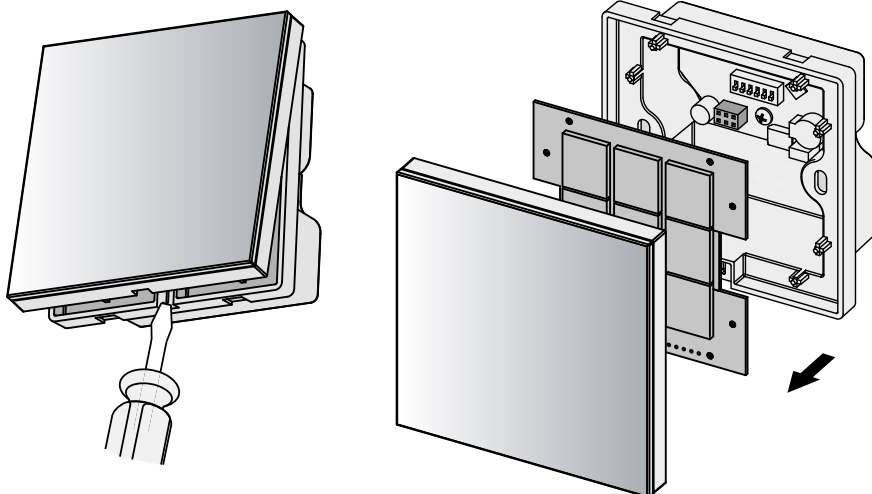
Wall surface mounting: lay required wires and cables to the installation place, bore the holes and fix the mounting box on the wall using the screws (separate order).



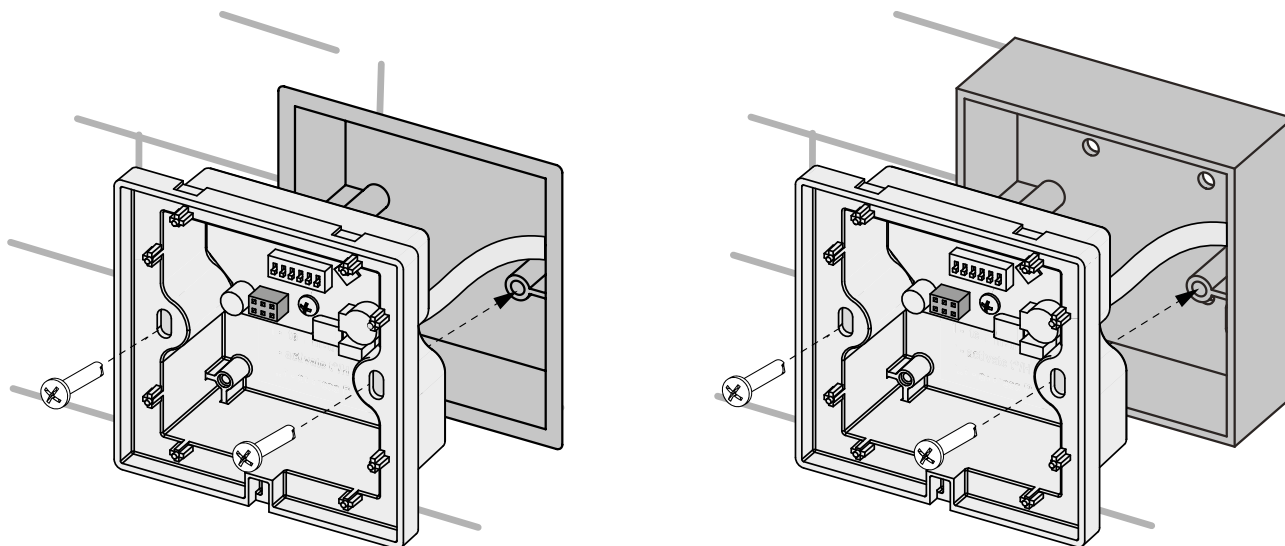
2. Connect the control panel in compliance with the wiring diagram.



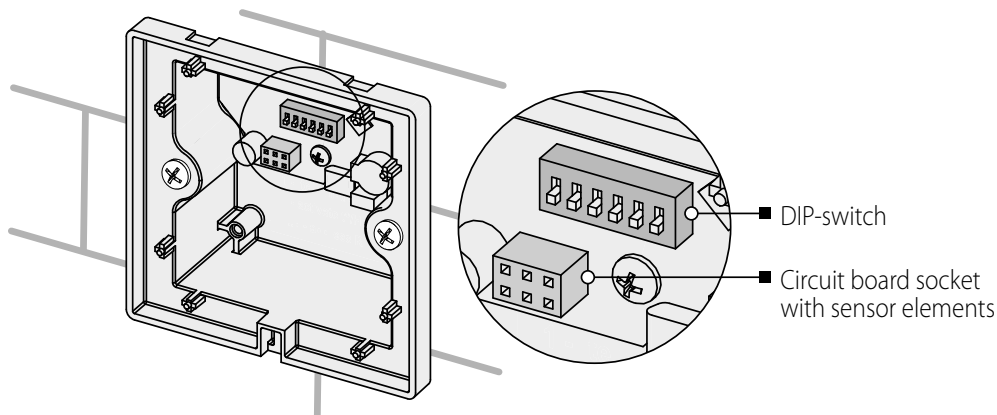
3. Unfasten gently the latches on the lower part of the glass control panel using a screwdriver. Take off the control panel. Then disconnect the sensor board from the connector on the casing.



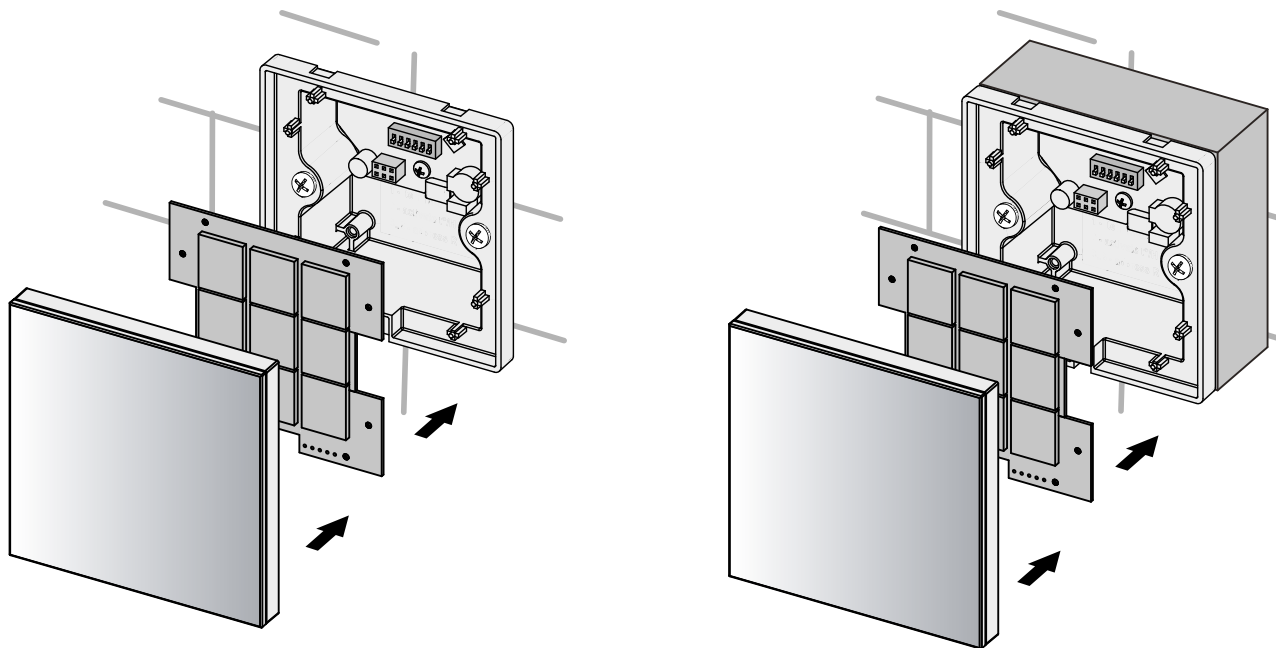
4. Attach the control panel frame to the mounting box with the screws. The fastening screws for fixation of the control panel to the mounting box are included in the delivery set.



5. **ATTENTION!** If more than one control panel must be connected, allocate a unique address to each control panel individually using the DIP switch as described in the Setup and Control section.



6. Fasten the sensor board to the casing, and then the glass panel by pressing it until it clicks into place.



## SETUP AND CONTROL

### ADDRESSING AND PARAMETERS OF RS-485 NETWORK

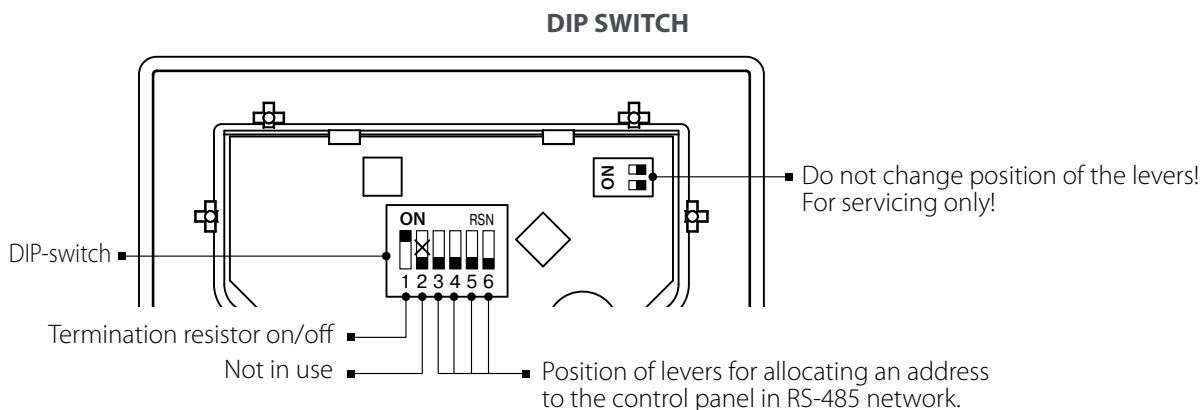
The control panel is compatible with the following RS-485 network parameters:

- baud rate: 115200 baud;
- stop bits: 2;
- parity: none.

**ATTENTION! The addressing of the control panel and the air handling unit is not interdependent.**

**ATTENTION! The control panel enables control of the air handling unit possessing the address 1 only.**

The address from 1 to 16 (factory setting 1) is allocated in the mobile application.



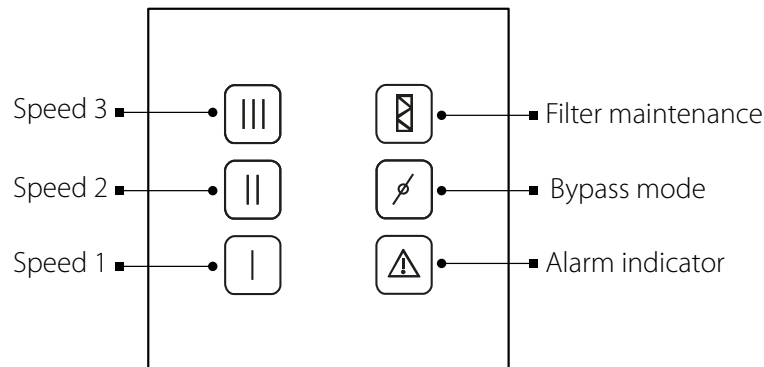
lever 1: the termination resistor on/off, the lever must be in the **ON** position, if the control panel is the first or the last in the RS-485 network.

lever 2: inactive.

levers 3, 4, 5, 6: control panel address from 1 to 16.

Control panel address	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DIP switch																

## INDICATION AND FUNCTIONS OF THE CONTROL PANEL BUTTONS



To **turn the unit on** or **change speed stage**, press any inactive speed button. Once activated, the button starts glowing, and the ventilation unit runs with the set speed.



To **turn the unit off**, press the active speed button.

In the **Standby mode** during the unit operation the buttons do not glow.



**The sensor control panel indication during its joint operation with the mobile application and other control devices is as follows:**

the buttons are highlighted in a definite sequence when the speed that is set with the mobile application or the control device is not supported with the sensor control panel.

Note: the parameter setting and speed setup with the mobile application as well as the link to download the program are stated in the user's manual for the wireless control system.

The parameter setting and speed setup with the control devices that are connected to the ventilation unit are stated in the user's manual for the wireless control system.



### Bypass mode

Bypass/rotary heat exchanger operation modes — **Auto** and manual mode. Press the button once to switch modes.

- The indicator is off: the bypass damper/rotary heat exchanger runs in the **Auto** mode.
- The indicator glows steady: the bypass damper is open/the rotary heat exchanger is stopped in the manual mode.
- The indicator blinks: the bypass damper is closed/ the rotary heat exchanger runs in the manual mode.



### Filter maintenance

The button glows steady: the filter must be cleaned or replaced.

After maintenance reset the filter timer.

To reset the filter timer, press and hold the button for 5 seconds until a beep tone is heard.

Release the filter maintenance button after all the buttons blink twice.



### Alarm

The indicator glows steady in case of alarm.

The indicator blinks in case of communication loss with the ventilation unit.

After troubleshooting an alarm reset the alarm indication.

To reset alarm, press and hold the button for 5 seconds until a beep tone is heard.

Release the alarm button after all the buttons blink twice.



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