



# USER'S MANUAL

## Sensor control panel



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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 the purpose, technical details, operating principle, design, and installation of the A22 unit (-s) and all of its (their) 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.

The information in this user's manual is correct at the time of the document's preparation.

The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

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# 1 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.

## 1.1 UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS



Unpack the unit with care.



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



Do not allow children to operate the unit.



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.



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



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



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 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.



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



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



The product must be disposed separately at the end of its service life.  
Do not dispose the unit as unsorted domestic waste.

## 2 PURPOSE

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.

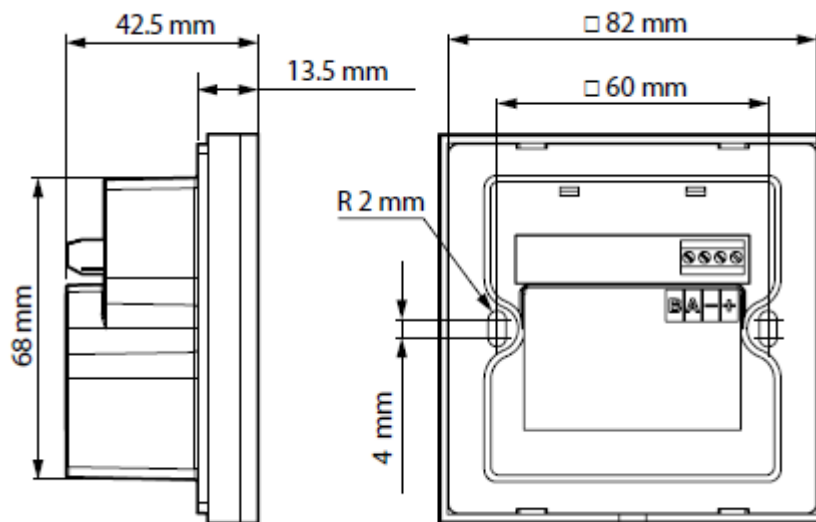


The unit should not be operated by children or persons with reduced physical, mental, or sensory capacities, or those without the appropriate training.  
The unit must be installed and connected only by properly qualified personnel after the appropriate briefing.  
The choice of unit installation location must prevent unauthorized access by unattended children.

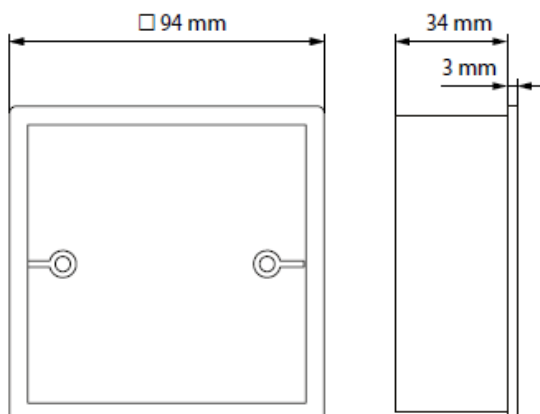
### 3 DELIVERY SET AND TECHNICAL DATA

NAME	NUMBER
Control panel	1 pc.
Mounting box for wall surface mounting	1 pc.
Mounting box for wall flush mounting	1 pc.
Signal cable, 10m	1 pc.
User's manual	1 pc.
Packing	1 pc.

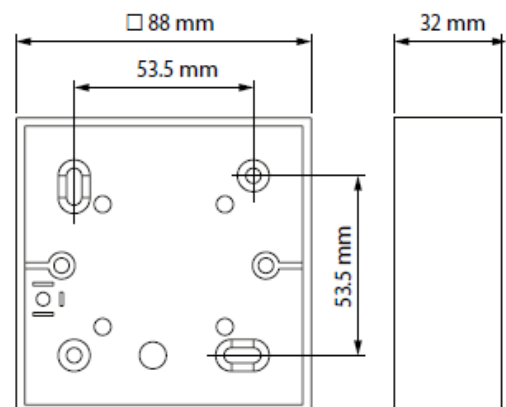
Power supply voltage [V]	24
Maximum load current [A]	0.025
Cable type	4x0.25 mm <sup>2</sup>
Temperature range [°C]	+10...+45
Humidity range [%]	10 - 80 (no condensation)
Ingress protection rate	IP40



Mounting box for surface wall mounting



Mounting box for flush wall mounting



## 4 INSTALLATION AND CONNECTION



CHECK THAT THE UNIT IS DISCONNECTED FROM POWER SUPPLY PRIOR TO ANY OPERATIONS!



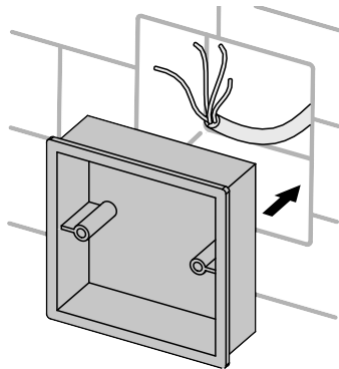
THE UNIT MUST BE INSTALLED AND WIRED BY QUALIFIED INSTALLERS ONLY, PROPERLY TRAINED AND POSSESSING THE REQUIRED TOOLS AND MATERIALS.



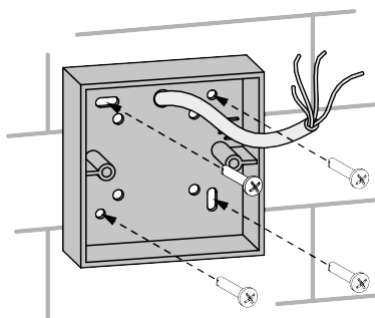
DO NOT MOUNT THE UNIT ON UNEVEN SURFACE. WHILE TIGHTENING THE SCREWS DO NOT APPLY EXCESSIVE FORCE TO PREVENT UNIT DEFORMATION..

### 1. Install the mounting box.

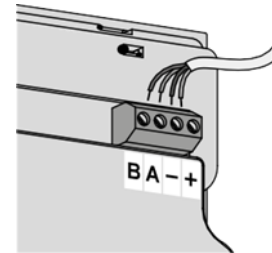
*Wall flush mounting:* prepare a wall opening, lay required wires and cables to the installation place and install the mounting box.



*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).

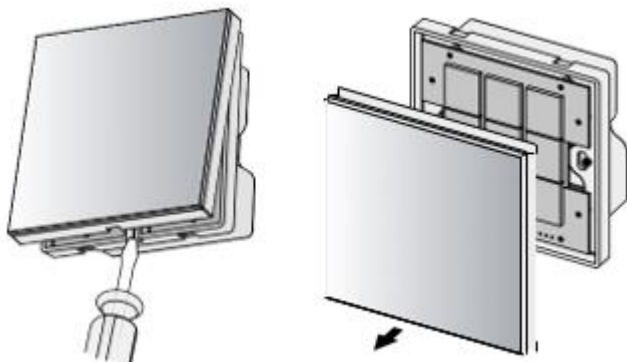


### 2. Connect the control panel in compliance with the wiring diagram.



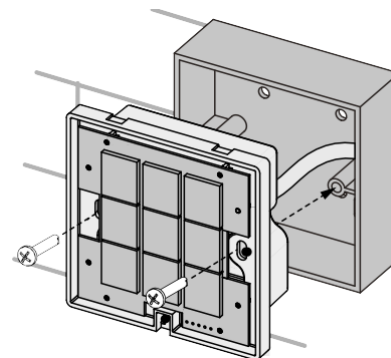


**3. Unfasten gently the latches on the lower part of the glass control panel using a screwdriver. Take off the control panel.**



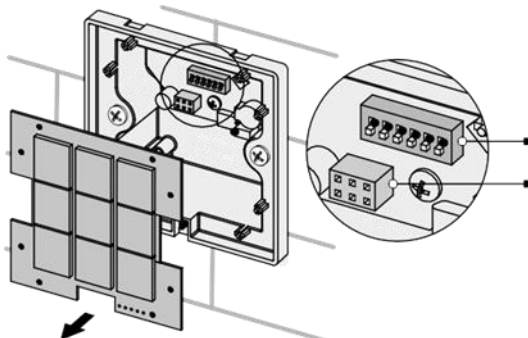
**4. Attach the control panel frame to the mounting box with the screws.**

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

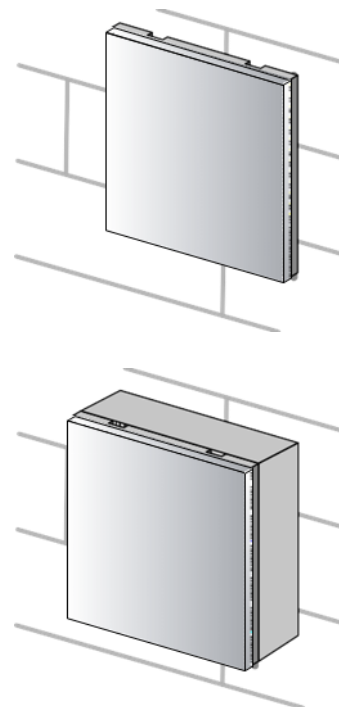


**5. ATTENTION!**

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. Remove the circuit board with sensor elements to enable access to the DIP-switch.



**6. Press the glass control panel of the control panel to the frame to click to fix it.**



## 5 SETUP AND CONTROL

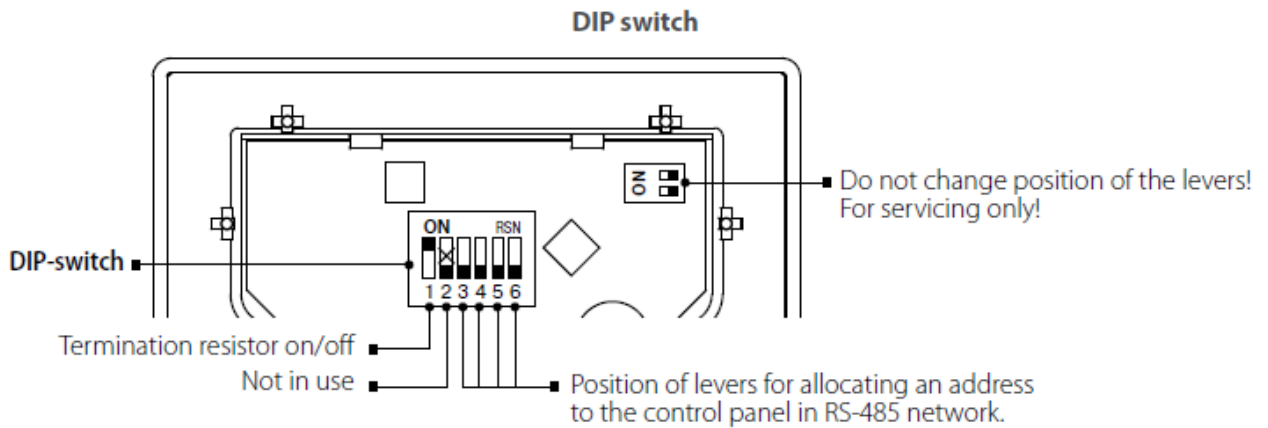
### 5.1 Addressing and parameters of RS-485 network

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.**



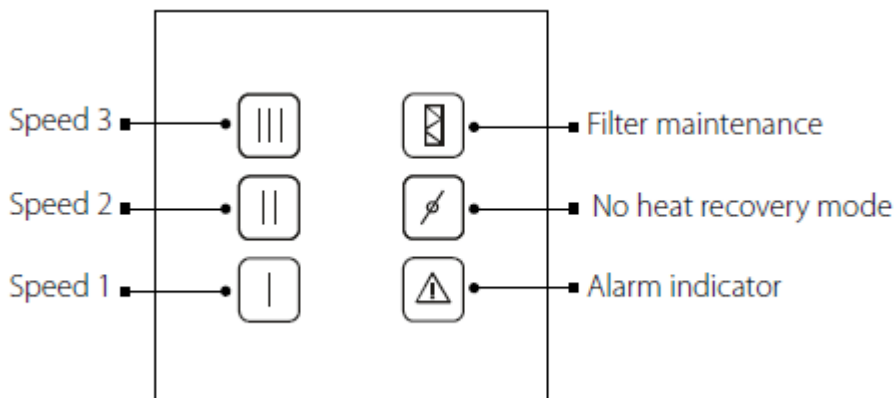
lever 1: the termination resistor on/off, the lever must be in the ON position, if the control panel is the first or the last in the RS-485 network.

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																

## 6 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 any activated 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 and the link to download the program is 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.

	<p><b>No heat recovery mode</b></p> <ul style="list-style-type: none"> <li>• The indicator glows steady: the bypass damper is open/the rotary heat exchanger is stopped in the manual mode.</li> <li>• The indicator glows steady: the bypass damper is closed/ the rotary heat exchanger runs in the manual mode.</li> <li>• The indicator is off: the bypass damper/ rotary heat exchanger runs in the Auto mode.</li> </ul>
	<p><b>Filter maintenance</b></p> <ul style="list-style-type: none"> <li>• The button glows steady: the filter must be cleaned or replaced.</li> <li>• After maintenance reset the filter timer.</li> <li>• To reset the filter timer press and hold the button for 5 seconds until a beep tone is heard.</li> <li>• Release the filter maintenance button after all the buttons blink twice.</li> </ul>
	<p><b>Alarm</b></p> <ul style="list-style-type: none"> <li>• The indicator glows steady in case of alarm.</li> <li>• The indicator blinks on case of communication loss with the ventilation unit.</li> <li>• After troubleshooting an alarm reset the alarm indication.</li> <li>• To reset alarm press and hold the button for 5 seconds until a beep tone is heard.</li> <li>• Release the alarm button after all the buttons blink twice.</li> </ul>

