

Ostro® One



Installation, commissioning
and user manual

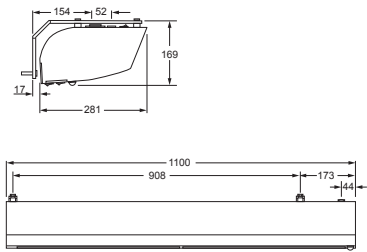


AIR CURTAIN

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Product Dimensions



1. Purpose of the device

The OSTRO ONE air curtain is a compact and modern heater designed to protect against heat loss in buildings by directing an airstream across the entrance to prevent cold air from entering the heated space. In summer, the air curtain may be used as a cooling unit preventing the entry of hot air and pollutants from outside. The OSTRO ONE is a “Plug & Play” device, the air curtain has built-in controls and a motion sensor. The curtain is equipped with a three-speed motor, the full speed range is available only with the use of additional control.

2. Basic technical parameters

Technical Parameters		Ostro One C	Ostro One E
Length of unit	m	1.1	
Max. range of airflow	.	2.9	2.5
Air output I / II / III speed *	m³/h	1200/1600/2100	1050/1400/1950
Heat output	kW	-	3
Motor power supply, consumption	V/Hz A	230/50 0.7A	
Motor power	W	100	
Electric heater power supply, consumption	V/Hz A	-	230/50 13.1
Weight	kg	11.7	12.9
Volume level I / II / III	bB (A)	43/48/56	42/46/56
Protection class	IP	IP20	

*speed II available only with the COMFORT NEW controller

Noise level measured at a distance of 3m in open space building

Tested according to ISO 27327-1 and ISO 27327-2The range of airflow can be smaller in building with significant pressure differences.

3. General and safety principles

The OSTRO ONE air curtains are manufactured in compliance with the rules and standards concerning quality, ecology, utility, and work comfort. Before operating the air curtain read the instruction manual carefully. The OSTRO ONE air curtains are delivered ready-to-use in a cardboard package protecting it from any mechanical damage. The package contains the OSTRO ONE air curtain, the instruction manual (Operation and Maintenance Documentation), and the Warranty. If the optional automatic control is ordered, it will be delivered in a separate package. Ensure all the aforementioned elements are in the package immediately after delivery. If anything is missing, please contact us.

Notice

- Before installing the unit, please read the installation manual carefully and install the unit in accordance with the instructions. Failure to install the unit in accordance with the instructions may invalidate the warranty.
- Pay special attention when working with electrical elements of the unit.
- A competent or qualified electrician should install this device. In accordance with the prevailing electrical regulations.

4. Installation

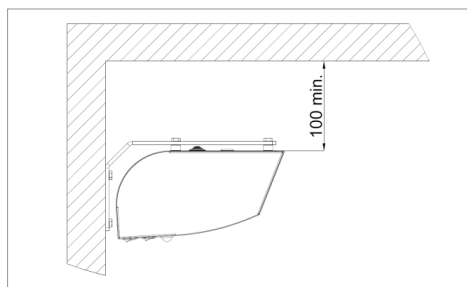
The location of the device should consider:

- Ease of access for servicing
- Access to suitable electricity supply

The air curtain should be mounted in position above the entrance opening, on the wall or under the ceiling, on support threaded rods or horizontal mounting brackets.

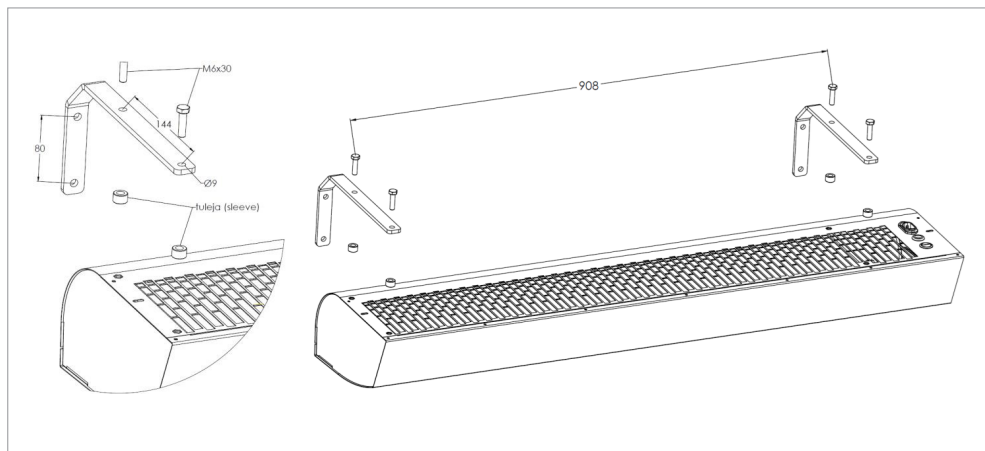
It is important to make sure that the unit is level. If the unit is incorrectly installed, whereby it is not horizontally level, it may cause damage to the fan and therefore cause the unit to fail. The air inlets and outlets must be kept clear. The installation location of the unit should allow easy access to the control panel.

With larger entrances, or door openings, it is possible to locate more than one Ostro ONE side by side above the opening.



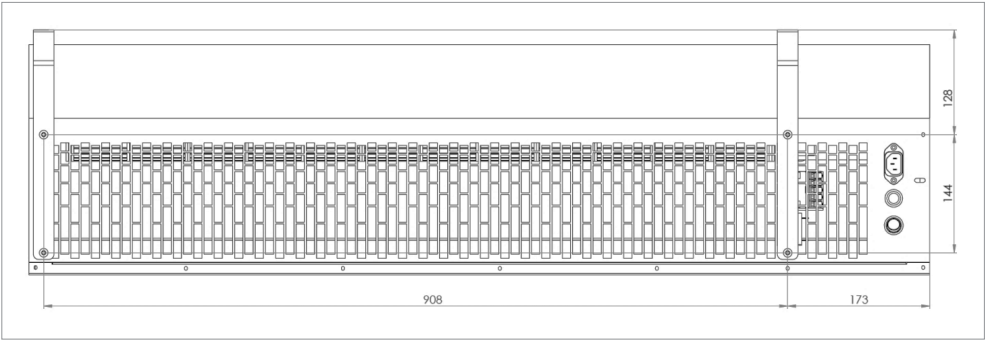
Wall installation by means of horizontal brackets

The air curtain can be mounted on the wall in a horizontal position using 2 mounting brackets to the horizontal system. In the brackets there are $\varnothing 9$ mm holes for M6 bolts. Insert the spacer sleeves into the holes and fix the brackets. Screw the M6 bolts into the holes on the body of the device.



Horizontal installation under the ceiling using threaded rods

Installation under the ceiling is done by using 4 x M6 threaded rods. The rods should be screwed into the rivet nuts at a depth of 10 to 14 mm. The exact location is indicated below:



Notice

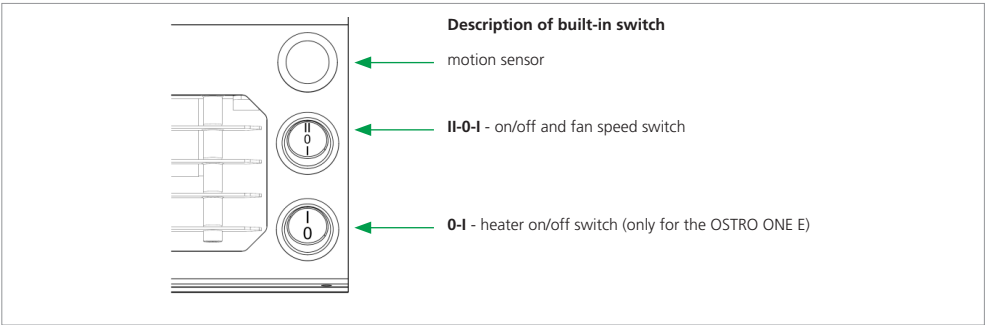
- The unit MUST be level. If the unit is not level then there is a risk of damage to the fan and the unit.

5. Automatic control

The OSTRO ONE air curtain is equipped with a three-position switch, motion sensor and power supply cable with plug. Additionally, OSTRO ONE can be used with an external control panel with thermostat and/or OSTRO door switch. These are additional accessories not included with the standard OSTRO ONE. The functions of the controls are shown in the table:

	Built-in controls	Additional controls
On/off	✓	✓
COMFORT NEW	-	✓
Speed support	I / III	I / II / III
Modes of operation	HEAT / FAN	HEAT / FAN / COOL
Motion sensor	✓	✓
Magnetic switch	-	✓
Thermostat	-	✓

5.1 Built-in controls



5.2 COMFORT NEW Panel



COMFORT NEW panel description

OFF-I-II-III - switch and fan speed regulation

HEAT - the thermostat signals to the actuator and fan, the fan turns off when the set temperature is reached, the heaters turn off

FAN - device fan operation according to the thermostat, electric heaters do not work

COOL - the thermostat signals to the heaters and fan, the device starts to work when the set temperature is reached

It is possible to apply an additional change in the position of the SR1 jumper to SR1 CONST. In this case, the fan can operate independently of the thermostat. Thermostatic operation is only for the valves. In such a case:

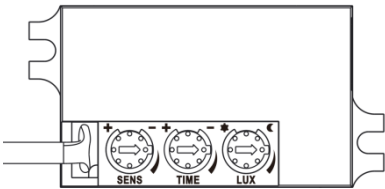
HEAT - fan operation regardless of the thermostat, heaters work up to the set temperature

FAN - device fan operation, regardless of the thermostat, valves do not work

COOL - fan operation regardless of the thermostat, heaters work from the set temperature

5.3 Motion sensor

Built-in motion sensor is a part of the unit. When detecting movement, the sensor turns the air curtain on automatically: with this feature, there is no need to turn on and off the device. The sensor parameters can be adjusted after removing the cover. The air curtain includes the switch to deactivate the sensor.



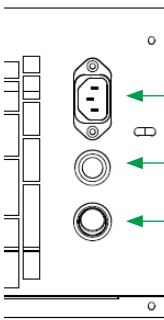
SENS – regulation of sensitivity

TIME - time delay from 10s up to 7 min

LUX - light sensitivity

5.31 Turning off the motion sensor

The air curtain is equipped with a switch that makes the operation of the device independent of the motion sensor. The switch is located on the top of the device, next to the power plug. In the “on” position, the curtain works bypassing the motion sensor or door switch.



C14 power plug (in version E: a fixed 1m cable is connected to an electrical terminal block, no C14 socket)

Cable entry for additional automation

Motion sensor switch

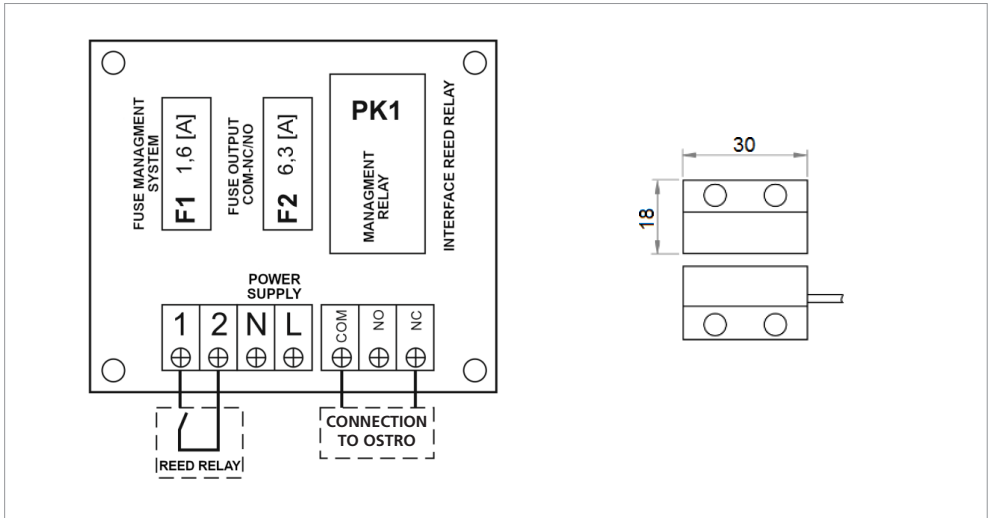
5.31 OSTRO door switch

The OSTRO (DC) door switch is an additional element to switch the air curtain on/off, depending on the opening of the door. It is designed for indoor installation. It includes:

- Relay cabinet - reed relay switchboard
- Reed relay - reinforcement for door-fitting, hermetic magnetic switch, consisting of a movable and fixed element.

The air curtain includes the switch to deactivate the sensor.

Scheme of the relay cabinet – reed relay interface.



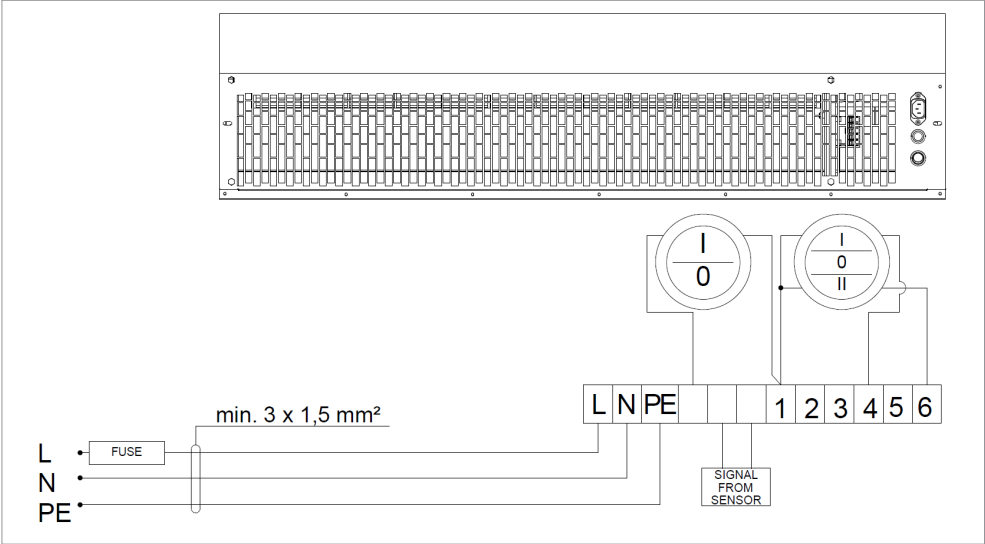
6. Diagrams of electrical connections

The electrical network to which the curtain will be connected should protect against overheating and short-circuiting. It is necessary to protect the air curtain with a suitable Earth connection. Electrical installation and connection to the air curtain must be following applicable building codes and regulations, electrical connection should be carried out by a qualified person familiar with the above instruction. The fan motor has standard internal thermal protection to protect the motor from overheating. The air curtain is equipped with a 1m power cable and C14 plug (for OSTRO ONE E air curtains, connection directly to the electrical cube in the air curtain), the curtain also includes integrated controls. For the external control panel or any other power cable, the wire must pass through the cable gland

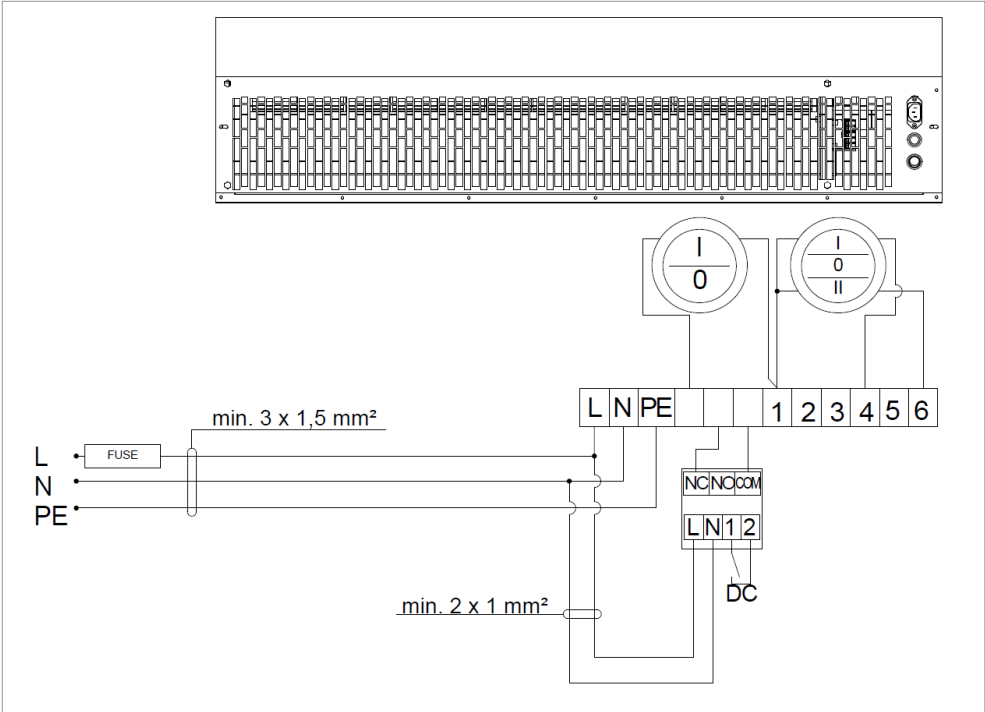
Notice

- Any repair and maintenance work must be conducted with the power switched off.
- Pay special attention when working with electrical elements of the device.
- Only suitably qualified staff well acquainted with the safety regulations concerning handling an electrical device must be employed when the device is being installed, started, and operated.

6.1. Connection diagram of OSTRO ONE C with basic control



6.2 Connection diagram of OSTRO ONE C with DOOR SWITCH



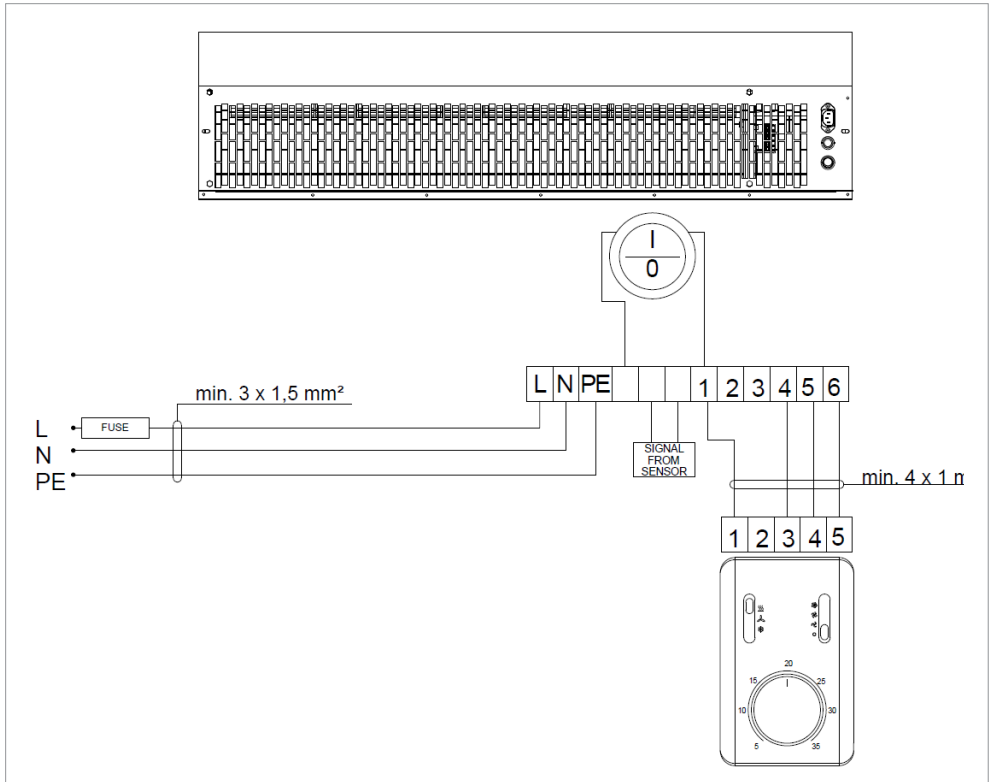
When working with the DOOR SWITCH, the motion sensor must be disconnected.

6.3. Connection diagram of OSTRO ONE C with COMFORT NEW panel

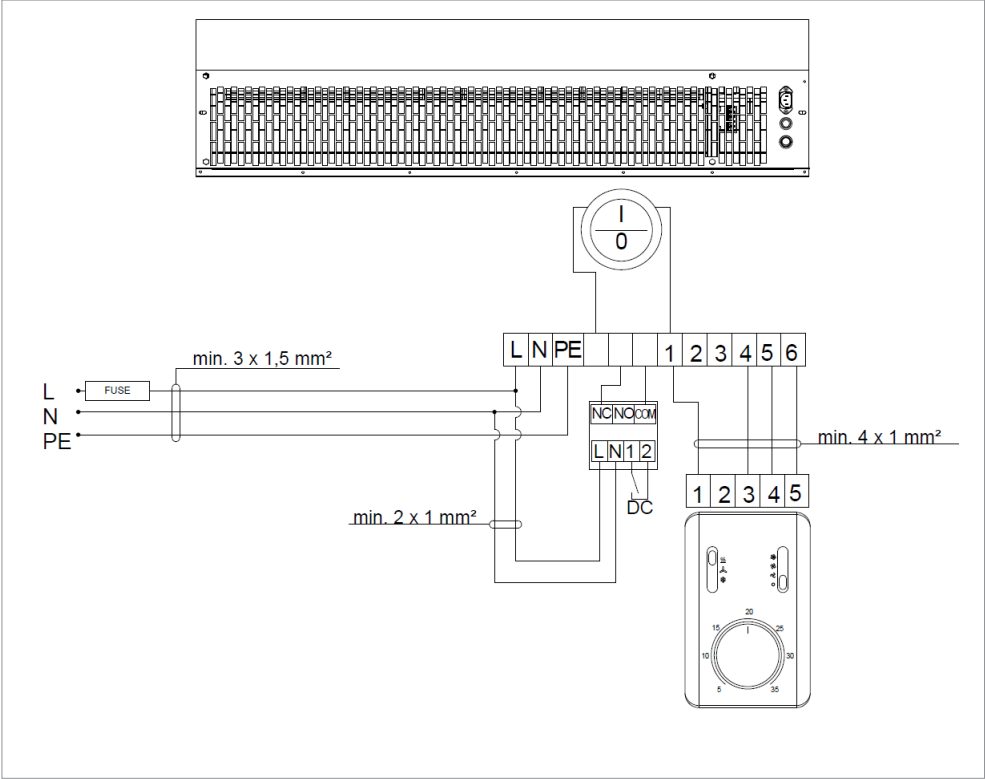
Notice

- When working with an external thermostat, it is necessary to disconnect and secure the three-position switch.
- When working with the DOOR SWITCH, the motion sensor must be disconnected and secured.

6.3.1. With motion sensor



6.3.2. With DOOR SWITCH

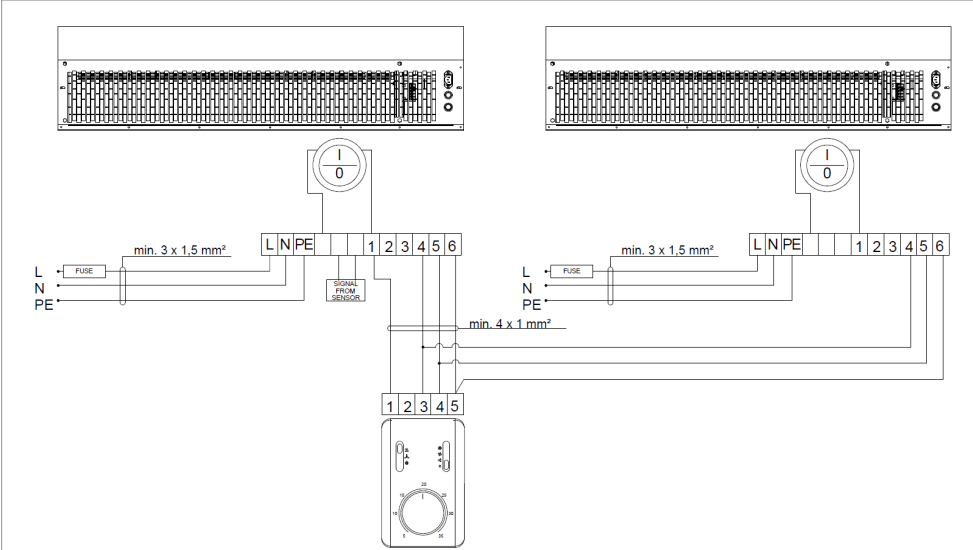


When working with DOOR SWITCH, the motion sensor must be disconnected.

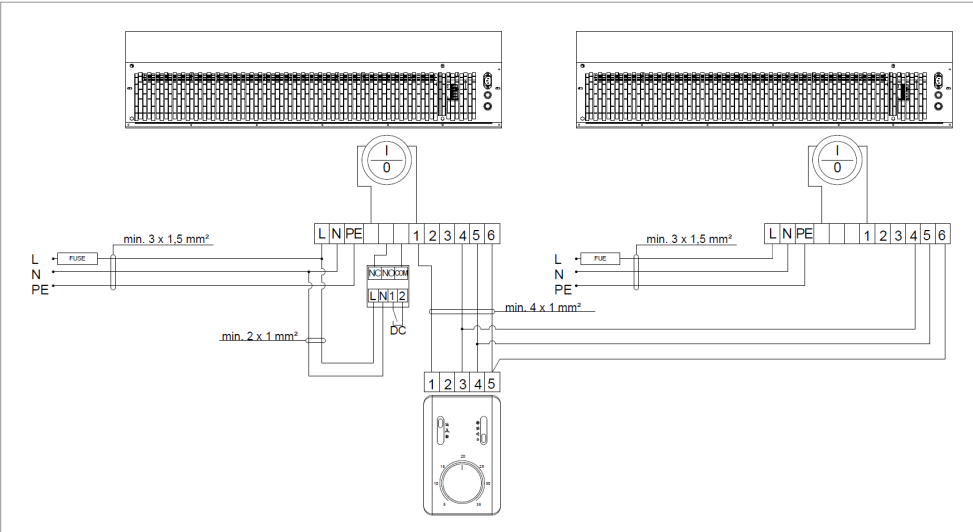
6.4. Connection diagram for multiple OSTRO ONE C air curtains with COMFORT NEW controller

Multiple OSTRO ONE C air curtains can only be connected to the COMFORT NEW panel, - up to 5 Units may be connected. If multiple air curtains are connected, the devices are controlled by a sensor connected to air curtain number one. The power supply to the air curtains must be provided from a single-phase supply.

6.4.1. With motion sensor

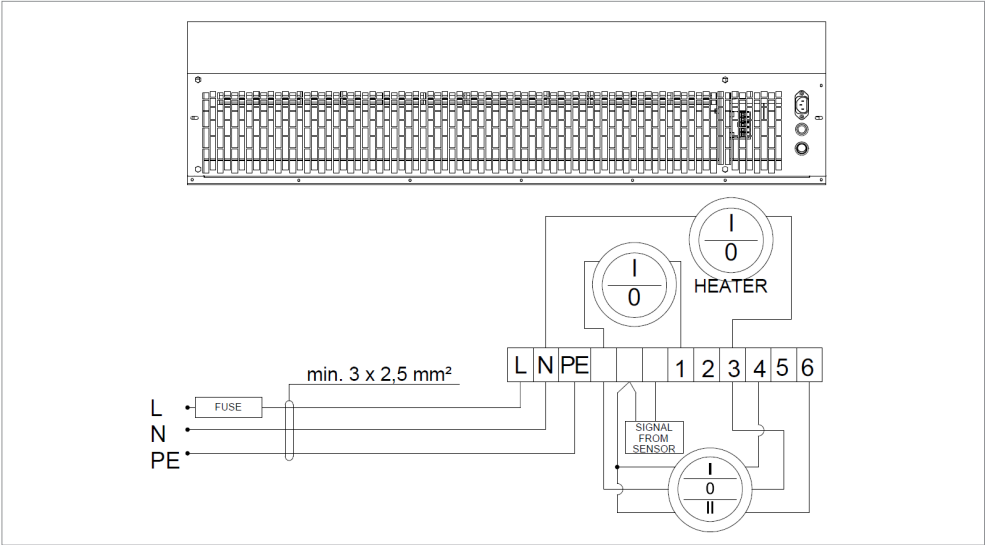


6.4.2. With DOOR SWITCH

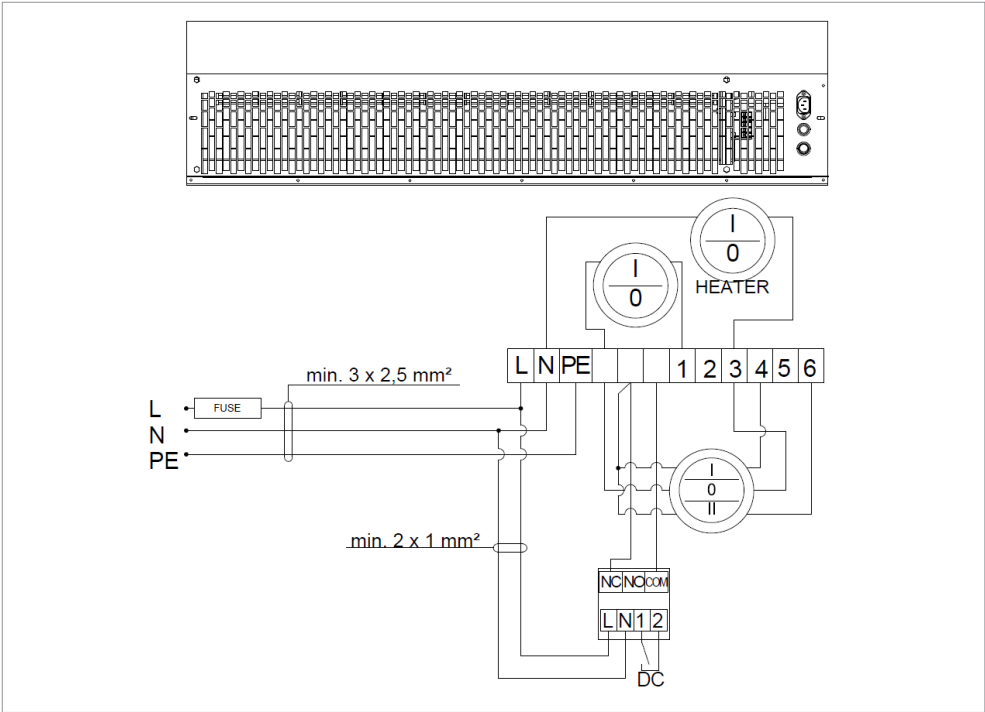


When working with DOOR SWITCH, the motion sensor must be disconnected.

6.5. Connection diagram of OSTRO ONE E with basic control



6.6. Connection diagram of OSTRO ONE E with DOOR SWITCH



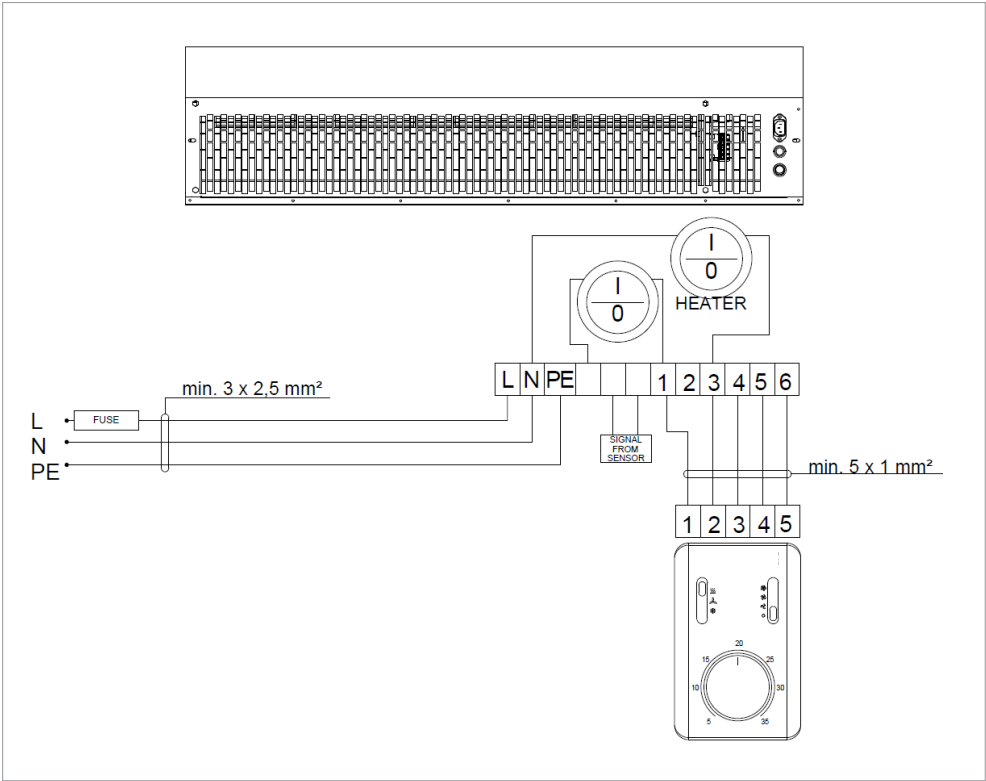
When working with the DOOR SWITCH, the motion sensor must be disconnected.

6.7. Connection diagram of OSTRO ONE E with COMFORT NEW panel

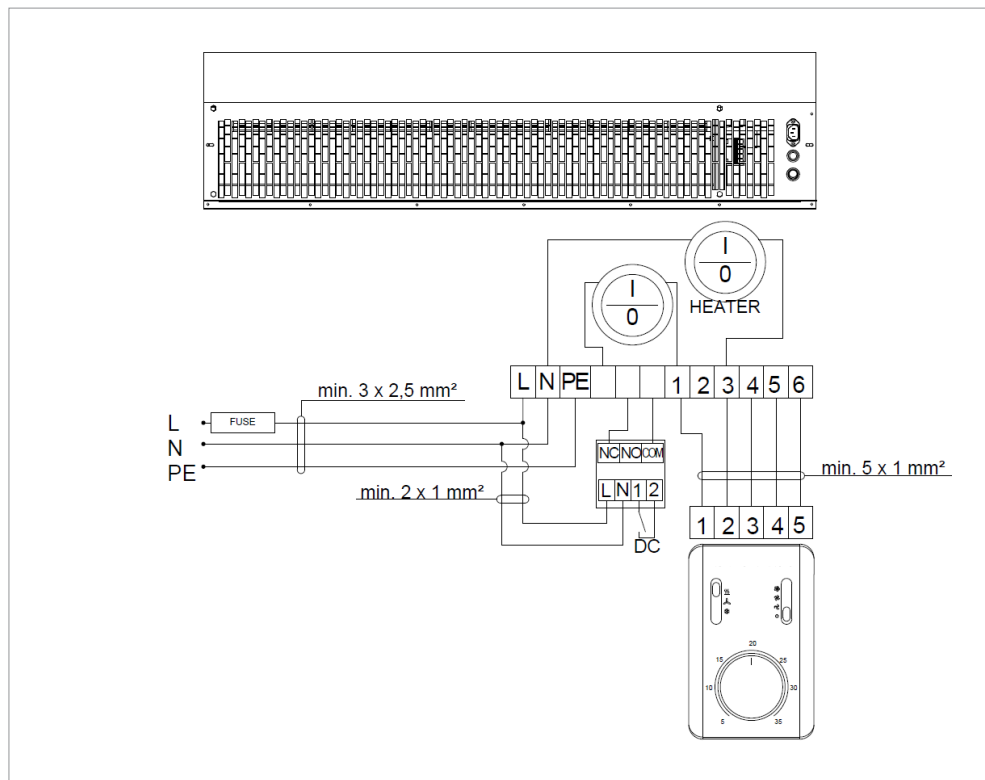
Notice

- When working with an external thermostat, it is necessary to disconnect and secure the three-position switch.
- When working with the DOOR SWITCH, the motion sensor must be disconnected and secured.

6.7.1. With motion sensor



6.7.2. With DOOR SWITCH



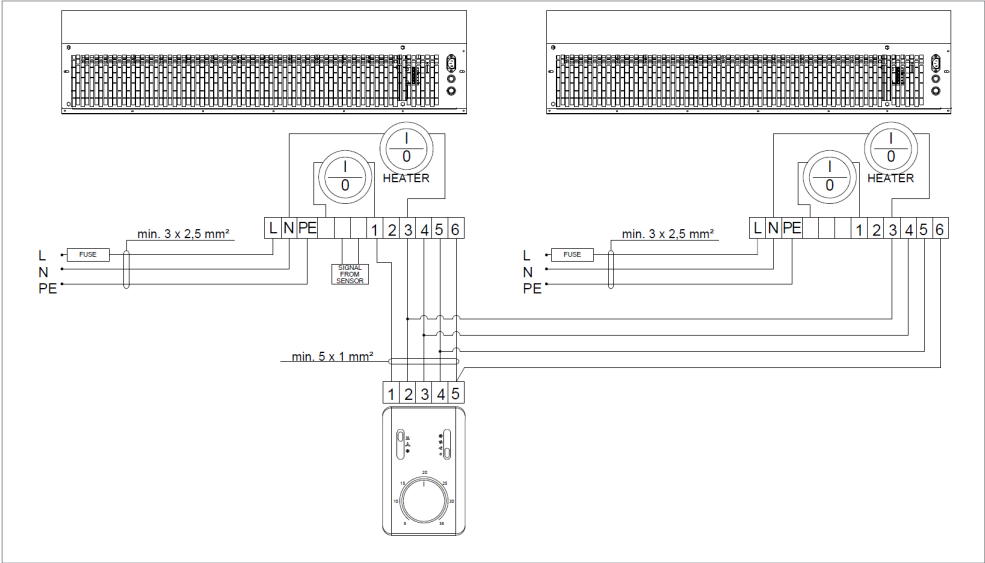
6.8. Connection diagram for multiple OSTRO ONE E air curtains with COMFORT NEW controller

Multiple OSTRO ONE E air curtains can only be connected to the COMFORT NEW panel - up to 5 units can be connected. If multiple air curtains are connected, the devices are controlled by a sensor connected to air curtain number one. Due to the need for power supply for the electric heaters, each air curtain must have an independent power connection. The power supply to the air curtains must be provided from a single-phase supply.

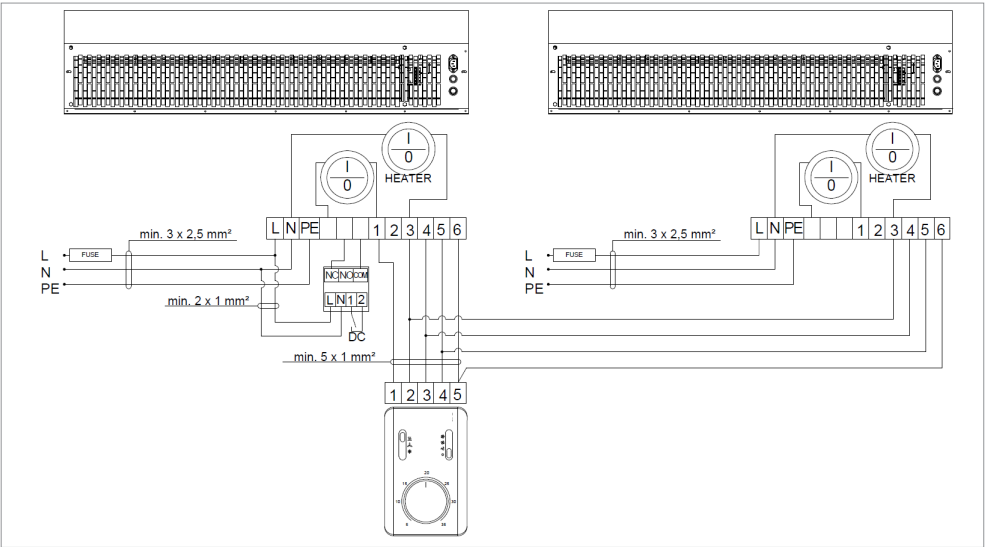
Notice

- When working with an external thermostat, it is necessary to disconnect and secure the three-position switch.
- When working with the DOOR SWITCH, the motion sensor must be disconnected and secured.
- Due to the power consumption, it is necessary to check the rating of the wire and fuse on the main power supplyline

6.8.1. With motion sensor



6.8.2. With DOOR SWITCH



7. Operation and maintenance

The motor unit with the fan used in OSTRO ONE air curtains is maintenance-free.

However, periodic inspection of the motor condition, including the bearings, is recommended (the fan rotor should rotate freely around its axis, without any axial or radial wobbling, and without any unusual noises).

The electric heater requires regular cleaning from any contaminants.

If the device is not used for a long period of time, disconnect it from the power source before using it again.

The heat exchanger has protection against overheating of the heater.

If the protective thermostat is triggered, it must be reset, and the motor's operation should also be checked for proper functioning.

Air curtains with electric heaters are equipped with contactors responsible for conducting current to the heaters during curtain operation.

Due to the nature of the element's function, wire connections in terminals may loosen; it is necessary to check the electrical connections regularly — at least once every 12 months.

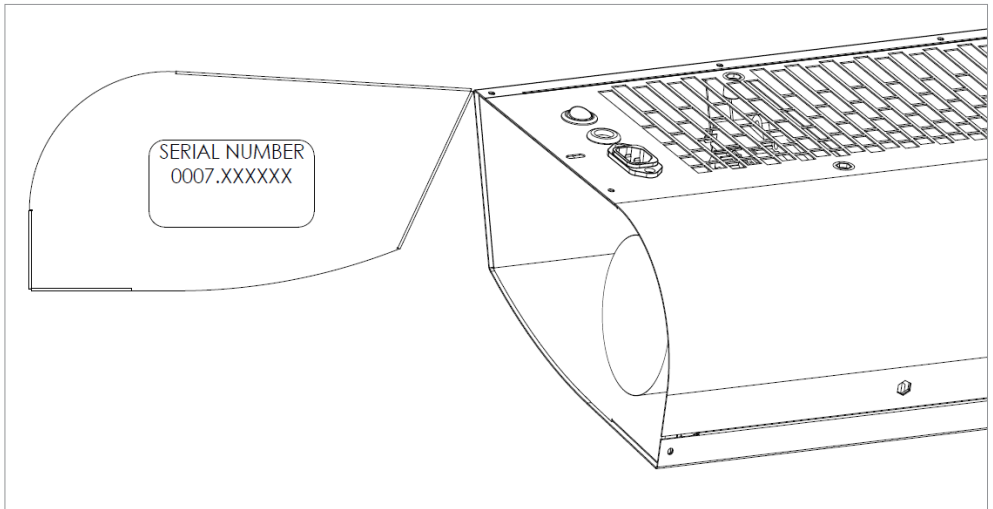
Notice

- Any repair and maintenance work must be conducted with the power off.
- Only suitably qualified staff well acquainted with the safety regulations concerning handling an electrical device must be employed when the device is being installed, started, and operated.
- If metallic knocking sounds, vibrations, or an increase in the noise level emitted by the device occur during operation, check whether the fan mounting has become loose.

In case of any issues, contact the device installer or Smith's Environmental Products.

Serial number

The serial number of the device is located on the inside of the housing, covering the connection strip.



Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Registering your product

Thank you for purchasing a Smith's product. It has been designed and manufactured to the highest quality standards to ensure it gives you efficient and trouble-free service for many years. We are committed to achieving the highest standards and our faith is supported by a free parts and labour guarantee with every product.

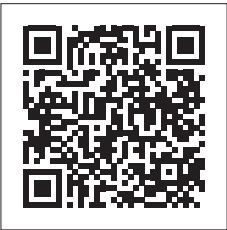
For more information on the warranty period for this product please visit our website smithsep.co.uk/product-registration/

This gives you the peace of mind that in the unlikely event of product failure, we will repair or replace the product completely free of charge providing the product has been installed, used and maintained in accordance with the instructions. Your statutory rights are not affected by this warranty.

It is important to register as soon as possible online at: smithsep.co.uk/product-registration/. This will ensure you will receive prompt and efficient service if your product requires attention within the warranty period. If you do not register your product, you will be required to produce proof of purchase prior to receiving service.

For more details please visit our website: SmithsEP.co.uk

SCAN HERE TO REGISTER
YOUR PRODUCT



Disposal

As part of the policy of continuous product improvement, Smith's Environmental Products LTD reserves the right to alter specification without prior notice.

Products with this symbol (crossed out wheellie bin) cannot be disposed as household waste. Old electrical and electronic equipment must be recycled at a facility capable of handling these products and their waste by-products. If you are purchasing replacement equipment your retailer may offer a 'take back' scheme, or will be able to give details of the nearest approved authorised treatment facility. Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.

WEEE Registered Code: WEE/ED0093VW



After sales and spares

If you experience any problems with the use of your product, please contact our after-sales office +44 (0) 1245 324560.

For product information, customer services or sales support call us on +44 (0) 1245 324900

For the Republic of Ireland, contact MT Agencies on 01 864 3363

Sales: sales@SmithsEP.co.uk

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Happy to help

Smith's Environmental Products Ltd is one of the leading manufacturers of heating and cooling products in the UK. We are committed to achieving the highest standards and our faith is supported by a free parts and labour guarantee with every product. Our customer service is second to none and we are happy to offer any help and guidance that you might need.

Stockists

All products are available nationally from Builders' Merchants, Plumbers' Merchants, Heating Equipment Distributors and Kitchen Equipment Distributors. In the event of difficulty, please contact us or visit our website SmithsEP.co.uk for details of your nearest stockist.

Information and advice

Full technical specifications and list prices is available to download from our website or in hard copy from our office. Also available on our website are price lists, individual product data sheets, installation & user guides, where to buy, who to contact and a media centre.

Alternatively contact our office 9.00am to 5.00pm Monday to Friday.

As part our commitment to continuous improvement Smith's Environmental Products may change the specifications of its products without prior notification or public announcement. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. All dimensions are in mm unless otherwise stated.

**To view the full product information
download the datasheet at:
www.SmithsEP.co.uk**

For product information, customer services or sales support call us on **+44 (0) 1245 324900**

For the Republic of Ireland, contact MT Agencies on 01 864 3363

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