

Operating Instructions

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- ▶ **Read these Safety instructions before using the switch for the first time and follow the Operating instructions.**

Safety instructions

1. The installation, initial operation and maintenance should only be carried out by a qualified expert with electrical know-how.
2. Comply with the local and statutory rules and/or the VDE0100.
3. Before electrical connection, check the specifications on the data plate and the technical data of this manual.
4. A fuse must be connected in series to the supply voltage, according to the Standard and Normative documents.
5. Protect the signal contacts of the limit switch against voltage peaks when inductive or capacitive loads are connected.
6. The device may be put into operation only if the electrical connection is correct. To secure the type of protection, the sealing cap and the gasket must be placed correctly.
7. The earth connection of the device has to be installed in such a way that mechanical damage will be excluded.
8. For a proper function, the blade must not touch the pipe and it is necessary to ensure its free movement. The blade could be cut if it is necessary.
9. If the device is installed vertically, it is necessary to adjust the sensitivity to balance the weight of the blade.
10. Switch off the power supply, before disconnecting the device.

Operating instructions

1. Specification

1.1 Intended use

The air flow switches are designed to control the air flow or non-aggressive gas flow in tubes and pipes for example in air conditioning systems or heating installations.

1.2 Function

When the air flow of the pipe pulls the Stainless Steel blade actuates a microswitch. This microswitch is inside the plastic housing and actuates according to the sensitivity adjustment.

1.3 Technical data

Manufacturer	Talleres Filsa, S.A.U.	
Address	Bernat Metge, 33 08100 Mollet del Vallès (Barcelona)	
Name	Air flow switch	
Type	FA	ref: 2620
Maximum pressure	Atmospherical	
Cable entry	M20x1.5	
Maximum voltage	250 V AC	
Contact function	1 NO + 1 NC	
Capacity of the contact	15 A / 24 ... 250 V AC (resistive load)	

For capacitive or inductive loads reduce at 50%

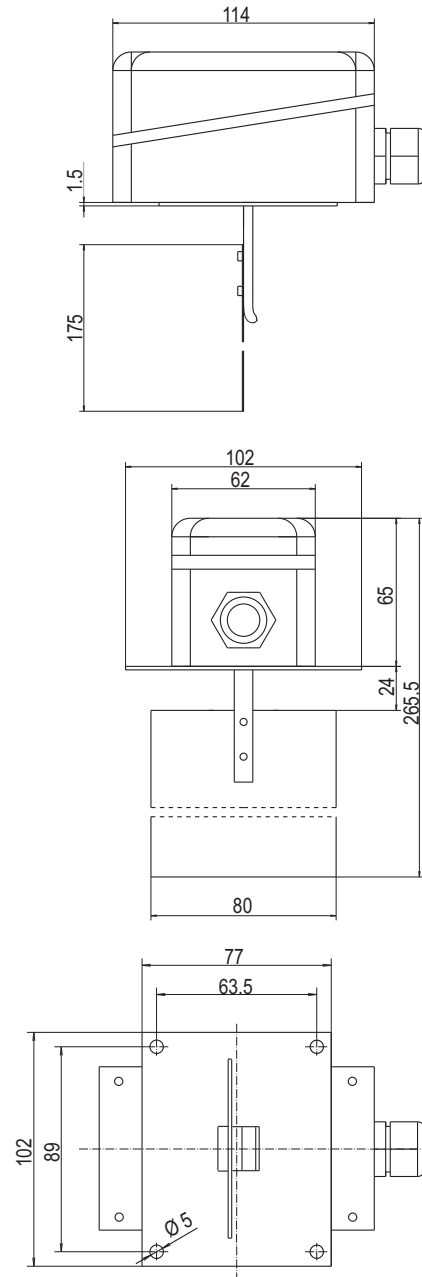
Temperature range	-40 °C ... +85 °C
Max. ambient temperature	+60 °C
Increasing flow speed	2.5 m/s ... 8 m/s
Decreasing flow speed	1 m/s ... 9.2 m/s
Protection	IP65 according DIN EN60529
Weight	0.63 kg

1.4 Materials

Base	ABS
Cap	Transparent Polycarbonate
Blade	Stainless Steel 1.4310
Process connection	Brass
Fixing gasket	Klingerit
Blade support	Brass

1.5 Dimensions

Approximate measures are given in mm.



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2. Installation

2.1 Preparing for use

- Read the Safety instructions and the Operation instructions before using the controller.
- Take the switch out the packaging box.
- For a proper function, the blade must not touch the pipe and it is necessary to ensure its free movement. The blade can be cut if it is necessary.
- If the device is installed vertically, it is necessary to adjust the sensitivity to balance the weight of the blade.

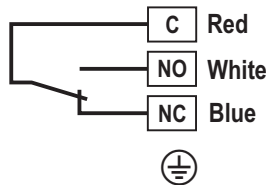
2.2 Mechanical connection

The switch can be horizontally or vertically mounted and the indication arrow located in the process connection must be faced to the flow direction.

The device has a flange process connection and can be mounted using screws, rods, fasteners or nuts.

2.3 Electrical connection

Connection diagram



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Cable gland

- Fix and fasten the screw nut of the cable gland to ensure the water-tightness.

Sensitivity adjustment

- The float switch has a regulation system that allows the adjustment of the sensitivity. Turn the screw clockwise to reduce the sensitivity and increase the strain of the air flow necessary to activate the microswitch. The device is adjusted at the maximum sensitivity, minimum flow 1 m/s. If the speed of the air flow is higher than 5 m/s it is necessary to cut the blade by the indicated line. In this case, the minimum flow would be 2.5 m/s.



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3. Use

3.1 Commissioning

- Put the controller into operation only if the installation and the electrical connection have been done correctly.

3.2 Normal operation

- Use the device in its intended application only.
- Comply with the specifications on the data plate and the technical data of this manual.
- If the controller is damaged, disconnect it immediately.
- It is forbidden to make changes to the device. This violates the Normative.

3.3 Inexpert handling

- Ignoring the Safety instructions and the Operating instructions.
- Not intended use.
- Making changes or handling the flow switch.
- Violation against applicable Law and Standards.
- Using of non original parts.

4. Maintenance, servicing and spare parts

4.1 Maintenance

- If used correctly, no specific maintenance is required.

4.2 Servicing

- Check and review the state of the housing, the blade and the correct switching of the electrical contact, as well.

4.3 Spare parts

- Use original spare parts only.
- The only spare part for this device is the blade.

5. Storage

- Store the controller in a dry and dust-free environment.

6. Disposal

- Switch off the power supply, before disconnecting the device.
- The controller can be recycled.
- The disposal applies to the valid environmental Guidelines according to the location of the carrier and the local manufacturing conditions.

FILSA constantly strives to improve its products and reserves the right to modify designs, materials and data without prior notice.

Keep this manual for further questions!