

Control system

MAC12

MAC12 constant pressure regulator

The MAC12 constant pressure regulator is used with fans with EC/FC motors. For single-phase motors, MAC12 is used together with add-on module MPR4 or MPR8.



Principles of operation

Constant pressure regulator, MAC12

MAC12 controls the start/stop of the fan and maintains the desired pressure. MAC12 can be placed wherever it is most practical - in the technical room or near the fan with a signal to the technical room. MAC12 is supplied as standard with an XTP sensor.

MAC12 can regulate the fan in three different ways:

1. Two preset pressures

MAC12 allows for two preset pressures (high/low), so that ventilation can be adapted to the needs in the system's operating area. The high and low pressures are selected and set individually in the constant pressure regulator via the very simple menu.

Alarm function

MAC12 has a built-in alarm function that is activated and displayed on the screen when the desired pressure is not maintained. There is also a potential-free contact for an external alarm.

In MAC12, the pressure deviation and the duration of the deviation that will trigger the alarm are set. The constant pressure regulator continues to operate during the alarm and will still try to maintain the desired pressure. MAC12 can be connected to a thermal fuse in the fan motor or an alarm signal from the frequency converter. Any alarm on that input is forwarded and the fan stops.

2. External start/stop

MAC12 also has the possibility of external start/stop.

3. Override

MAC12 allows for override to an independent pressure level or max. air volume.

Control of multiple channel systems

MAC12 can control up to 5 parallel single-channel systems. This requires the system to be built exclusively via the modbus interface, so that a correct link between the different pressure sensors and the associated fans can be ensured. Each system is considered an independent system, with its own operating points and control parameters. In this context, an MXTP pressure sensor must be used.

External communication

MAC12 is equipped with a modbus interface for external connection to, for example, BMS/CTS systems. Via the connection, it is possible to read the operating status and make changes to all operating parameters.

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Product description

MAC12, an ideal pressure regulator for demand control of energy-optimised ventilation solutions

MAC12 has been developed for pressure regulation of fans with EC/FC motor. For single-phase motors, MAC12 is used together with add-on module MPR4 or MPR8.

MAC12 satisfies the requirement for low energy consumption and operational reliability and the option for adapting air changes to the current ventilation needs.

MAC12 has a display with text in several languages, making adjustment and monitoring of the unit easy to understand and to execute. MAC12 also supports external communication, thus permitting the use of remote monitoring.

General data

Ambient temperature range	-30°C - +50°C
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Dimensional data

A (mm)	222
B (mm)	145
C (mm)	55
Height (mm)	175
Width (mm)	223
Depth (mm)	55

Heat recovery data

Consumption	0.5 W
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Electrical datas

Protection rating	IP54
Max. line fuse (A)	13

Installation

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Function

The pressure transducer measures the current pressure in the duct system, and the MAC12 regulates the ventilator's output in line with the pre-set pressure. The measured pressure in the duct system can be read off from the MAC12 display. Pressure transducers with a different sensitivity from that supplied may be connected, the value being set in MAC12.

Two pressure connectors

The pressure transducer has two pressure connections. One connection links to the duct system, where the required pressure is to be kept at a constant level. The second is used as a pressure reference and can be led to a neutral reference area.