

# FHR 310

## DIGITAL REGULATOR OF EXHAUST AIR FLOW FOR FUME CUPBOARD

FHR 310 is a control unit for controlling the exhaust air flows of various fume cupboards.

Together with the vacuum sensor, the motor damper and the function indicator, the air speed in the hood opening can be kept as desired and constant.

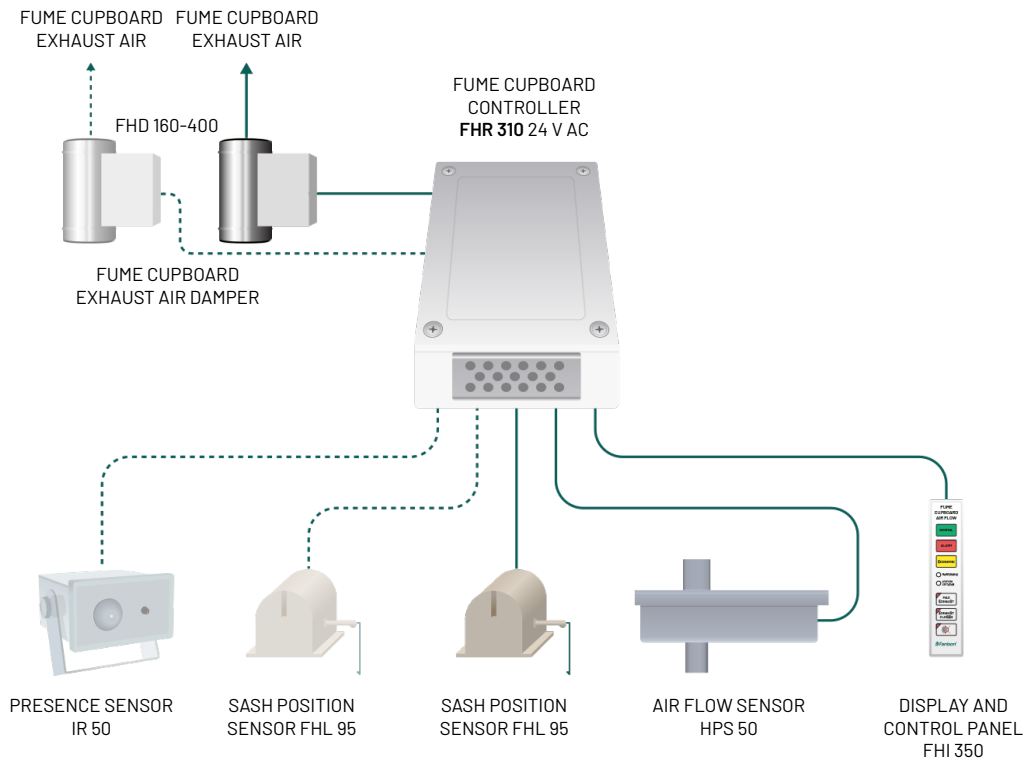
The controller is part of the room system and must be connected via RS 485 bus to the room controller SAR 410.



Dimensions: 180 x 130 x 60  
( L x B x H )

## TECHNICAL INFORMATION

Operating voltage	24 VAC 15%, 50-60 Hz
Connection power	10 VA
Encapsulation	Polycarbonate, IP65
Operating temperature	+10 ... +40°C
Adjustment range "NORMAL"	0.3 to 1.5 m/s
Adjustment area "ECONOMIC"	0.2 to 1 m/s
Sash width	0 to 2500 mm
Minimum airflow	28-278 l/s
Maximum airflow	56-1111 l/s
Accuracy	± 2% of max. air flow
Query speed	0.25 sec
Air flow alarm, relay	1 button change max 24 VAC, 1A
Alarm delay, relay	10-60 sec
Alarm delay, beep	10-60 sec
Alarm delay, indicator light	10-60 sec



## DESCRIPTION OF FUNCTIONS

FHR 310 is a central unit for the control of the fume cupboard. Together with the vacuum sensor HPS 50, it sets a constant negative pressure in the fume cupboard, which guarantees a constant air flow to the opening of the fume cupboard sash.

When the position sensor FHL 95 is used, a faster air speed adjustment (D function) is obtained when adjusting the sash of the fume cupboard. The exhaust air volume and alarms of the fume cupboard are sent via the RS bus to the room controller, e.g. SAR 410.

With the presence sensor IR 50 available as an accessory, two setting values can be set for the air speed, Normal and Economy. The economy position is activated when no one is working in the fume cupboard.

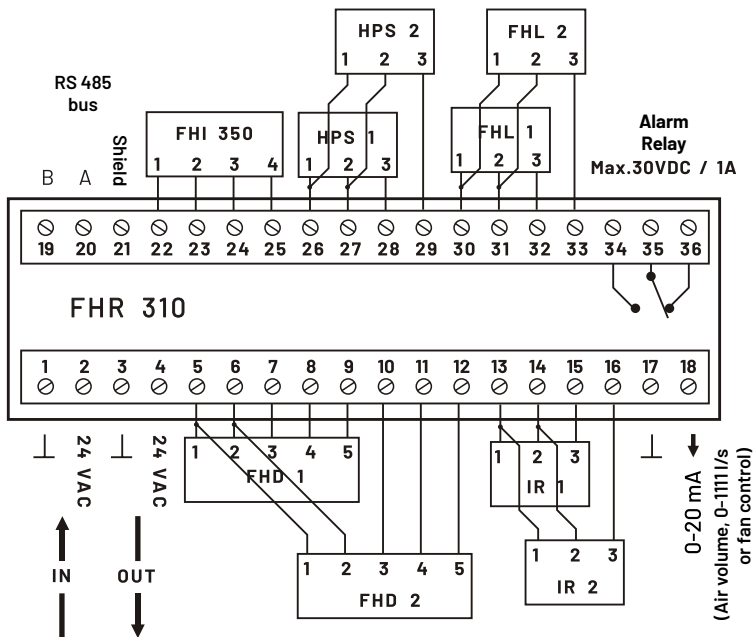
FHI 350 is an activity indicator that can be installed on the slide rail of the sash or on the side of the fume cupboard.

The indicator lights on the function indicator indicate NORMAL or ECONOMY operation, alarms for insufficient air volume and the need for maintenance. The maintenance alarm warns of a malfunctioning position sensor or control damper.

The function indicator has switches for forced control of the control damper fully open or closed and a switch for acknowledging the alarm signal. The controller gives an alarm when the air flow drops below the limit set in the sash opening. The alarm occurs with a flashing red indicator light and an audible signal, or optionally without an audible signal.

The controller can be programmed for one or two motorized dampers and one or two-part sash. In this way, double-sash, two-channel or very wide drawers can be adjusted more precisely. Minimum and maximum limits for exhaust air can be programmed into the controller. All settings for the controller are made via the RS 485 bus.

## SYSTEM DIAGRAM



### Additional card LK1

