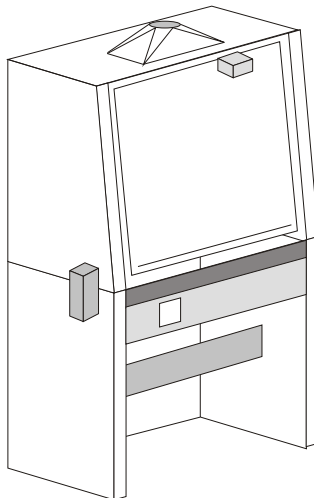


# ES 355

## Flow Alarm with internal backup

Control of flow in fume cupboards indicating  
high, normal and low flow with alarm.



### **Description:**

Flow alarm intended for mounting in fume cupboard providing the user with information on the operating status.

The flow alarm comes with a power supply with internal backup, control panel and flow sensor.

The supply power for the flow alarm is taken by the main switch of the fume cupboard, as normally flow only needs to be monitored when the cupboard is in operation. The operation is monitored on the control panel; green light indicates OK operation (0.5 m/s), yellow light (0.6 m/s) indicates high flow. Red light together with an audible alarm, indicates insufficient flow (<0.4m/s).

The alarm for low flow is not activated until the flow has been below 0.4 m/s for approx. 2 seconds.

The unit is also available with a feature allowing the audible alarm to be muted.

### **Important:**

Do not blow through the flow sensor, as this may damage the sensor.

During annual service the flow alarm and the battery for the backup are to be checked.

### **Mounting:**

The connection box comes with 1 coupling for 230V supply and 2 clamps for cables from the control panel and the flow sensor.

The connection box is designed for mounting on wall or on top of the fume cupboard with screws in the four corners.

The control panel and the flow sensor come with 2m cable. Therefore the connection box is installed within this distance.

The control panel is mounted in a visual position and is fitted with the supplied double adhesive tape. If the unit is ordered with "mute alarm", the operator should be able to access the panel easily to mute the alarm. If required an angle fitting may be supplied.

As standard the flow sensor is placed on the top of the fume cupboard centrally between the exhaust flange and the fume cupboard side. In this location a hole is drilled through which the sensor tube is taken into the cupboard. Note the arrow in the flow direction.

The flow sensor is fixed with the supplied double adhesive tape.

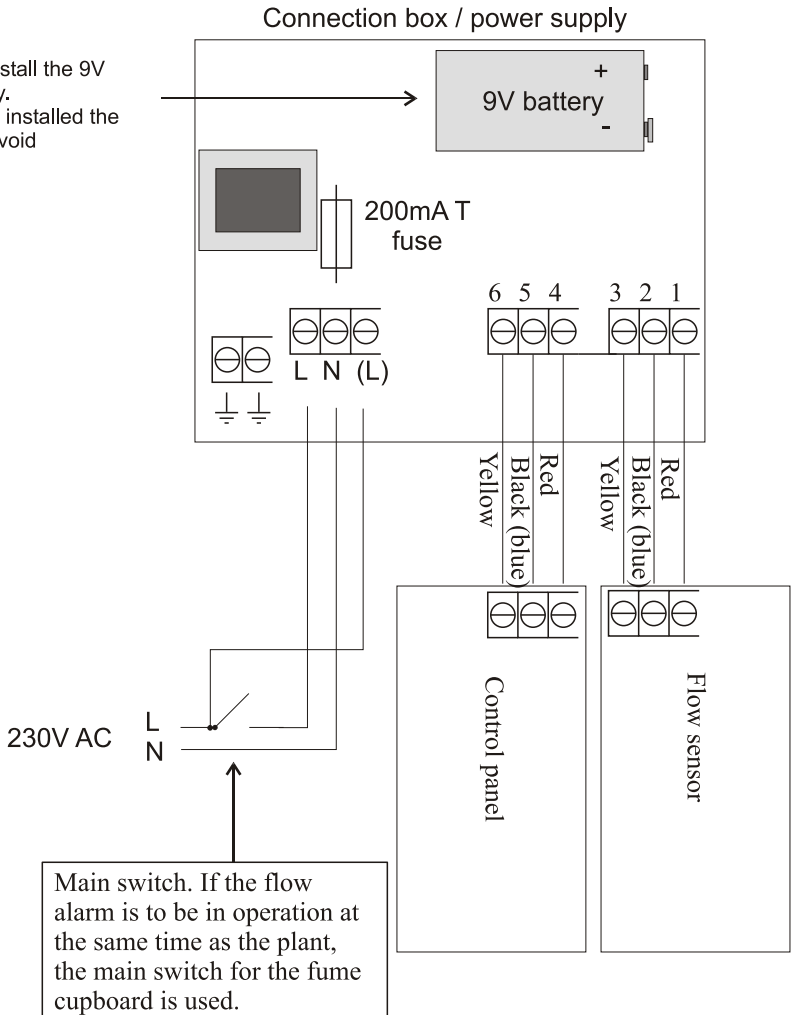
The position depends on the type of cupboard. In some cases it is necessary to extend the flow sensor tube and take it to the measuring point (30cm up and 30cm into the cupboard) to achieve the best possible measurements.

Mounting on the side of the cupboard may also be a possibility. NOTE that fitting of the flow sensor close to supply valves or similar may influence air flow and consequently result in faulty measurements.

**REMEMBER** to fit the **9V battery** correctly during installation.

## Connection diagram:

Make sure to install the 9V battery correctly. On delivery it is installed the wrong way to avoid discharging.



## Adjustment:

Alarm point for the flow sensor can be adjusted on the side of the display.

The flow in the fume cupboard is increased to approx. 0.6m/s; adjust to the point at which the yellow "high" lamp illuminates.

Alternatively the flow is decreased to the desired alarm point (typically 0.3-0.4m/s.), and adjusted to the point at which the alarm is activated. After completed adjustment, the functioning of the alarm points is checked.

**Technical data:**

Supply:	230V +6% -10%	
Frequency:	50/60 Hz	
Power consumption:	2W	
Mains fuse:	10A	
Enclosure:	IP22	
Dimensions HxWxD:		
	Connection box	122x122x55 mm
	Control panel	102x50x30 mm
	Flow sensor	102x55x40 mm
Range:	0.1 - 1 m/s	
Tolerance:	±5%	
Op. temperature:	+18 til +28°C	
High:	0.6 m/s	All 3 points to be
OK:	0.5 m/s	adjusted with
Alarm:	0.4 m/s (2 s)	a trimmer.

**Type table**

Product code:	Type	Description
	ES355	Flow alarm without "mute alarm" function
	ES355	Flow alarm with mute alarm function
		Angle fitting for mounting of operating panel 9V battery Double adhesive tape for fitting.

**The product complies with the below CE directives:**

LDV 73 / 23 / EØF

**Distributor:**

Date: 19 / 2000  
Drawn by: PN - JEH  
Rev.: 1.1  
Manufactured by: **LS Control A/S**

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