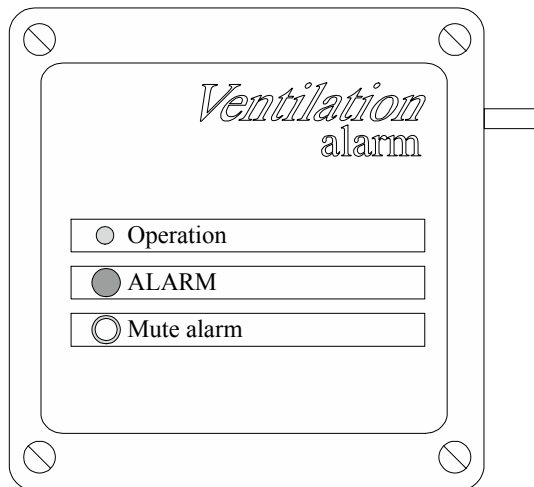


ES 306

Ventilation alarm with battery back-up

Control unit for monitoring of process ventilation.
The ventilation alarm informs the operator about
the operational situation of the plant.



Description:

Ventilation alarm with integrated pressure switch, back-up and BMS relay for control of ventilation plant, local exhaust ventilation or similar. The ventilation alarm is equipped with a green operation lamp, a red alarm lamp and a button for muting of the audible alarm. The audible alarm is mounted in the box.

Normally the ventilation alarm is turned on and off at the same time as the ventilation plant that it is monitoring. Therefore it is an advantage to use the switch for the ventilation plant as the switch for the ventilation alarm too (clamp L). Clamps 4 and 5 are permanently connected to constant supply. This supply can only be cut in case of power failure. In case of power failure the alarm will be activated by the integrated battery and it will be in operation for up to approx. 15 hours depending on battery type. The lifespan of the battery is approx. 3 years without power failure.

When the ventilation alarm is turned on, the alarm lamp will be flashing (the audible alarm will not be active) until the pressure has reached the set level. This feature has been introduced to avoid audible alarm during the starting up period of the ventilation plant. Hereafter the audible alarm will be active again.

When the pressure drops below the set alarm level on the pressure switch, both the audible and the visual alarms will be activated. The audible alarm can be muted, but the visual alarm will keep flashing until the fault has been corrected. When the pressure is back to normal, the audible alarm will be active again.

The ventilation alarm is equipped with connection pieces for both positive and negative pressure. Typically the ventilation alarm is set to measure on negative pressure, i.e. with one tube connected to the negative pressure piece. The other connection piece will refer to the surrounding air (normal pressure). By introducing a damper in the duct it is possible to obtain an insufficient flow alarm.

Situations:

Operation (pressure) Okay: Connection between 7 and 8. Only the green operation lamp is illuminated.

Low pressure failure: Connection between 6 and 8. The red alarm lamp is flashing and the audible alarm is beeping. The audible alarm can be muted by pressing "mute alarm". The BMS relay clamps 7 and 8 are now connected.

Power failure: Connection between 6, 7 and 8. The operation lamp is illuminated, the red lamp is flashing and the audible alarm is beeping supplied by the integrated battery.

Important:

Check the battery annually when the ventilation plant is serviced.

If the check includes blowing in the pressure switch utmost caution should be exercised as the pressure switch may be damaged at high positive / negative pressures.

Remember to disconnect the power supply when the ventilation alarm is serviced.

Mounting:

The ventilation alarm should be mounted in such a way that it is visible to the person(s) in charge of the daily operation of the ventilation plant.

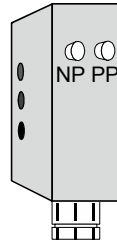
The supply should be taken from the ventilation plant it is monitoring. To ensure that the power failure alarm is working correctly live and neutral must be permanently connected to clamps 4 and 5. Clamps L and N (on/off) are connected to the same supply that starts the ventilation plant. 1 meter plastic tube is supplied as standard. Longer tubes can be mounted.

Mounting of connection piece

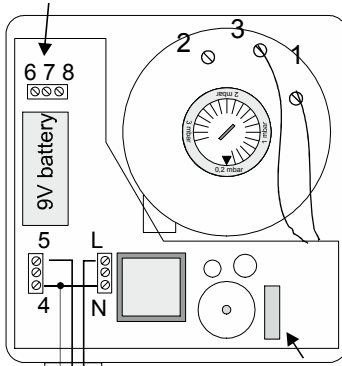
1. Drill a 10 mm hole in the panel / duct
2. Push the pressure connector in place
3. Fasten the connector using 2 screws
4. Mount the tube on the nozzle.

BMS - output

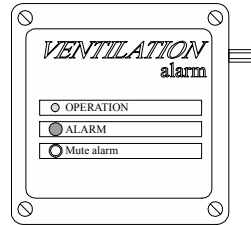
Connection between 8 and 6 = Failure
 Connection between 8 and 7 = Operation OK
 Connection between 6, 7 and 8 = Power failure



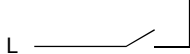
Connection positive pressure
 Connection negative pressure



Socket for top panel
 (mounted upon installation)



Permanent neutral N
 Permanent live L



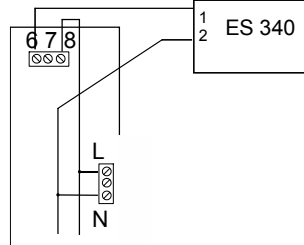
On/off ventilation alarm
 (typically the switch of the ventilation plant)

SWITCH (on/off ventilation alarm)

Typically live L is taken from the ventilation plant switch. In this way the ventilation alarm is on/off at the same time as the plant.

Connection of external alarm ES 340

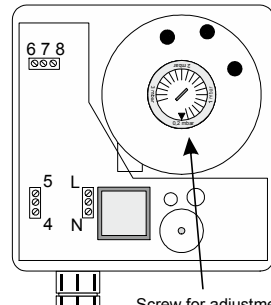
Live (L) is run through the BMS relay to the alarm.



Adjustment:

When the ventilation alarm has been installed, the pressure switch is adjusted. The set point is adjusted to the point where the red lamp is off at the desired air volume and on when the air volume decreases (red lamp is flashing and audible alarm is beeping).

For special ventilation applications, contact the supplier for a table over the pressure drop for the equipment in question.



Screw for adjustment of set point

Technical data:

Supply:	230V +6% -10%
	24V AC at marking with 24V labels on clamps
Max. load:	13A
Frequency:	50/60 Hz
Enclosure:	IP22 / IP54 depending on marking on product
Dimensions HxWxD:	120x122x60 mm
Operating temperature:	0-50 °C
BMS relay:	1A, 250V
Hysteresis pres. switch:	15 Pa
Battery:	9V 6LR61 (alkaline is recommended)
Accessories:	Battery, connection kit and 1m plastic tubing are supplied with the unit.

Type table

Type	Description
ES 306	Ventilation alarm 20 - 300 Pa
ES 306	Ventilation alarm 100 - 1000 Pa
ES 306	Ventilation alarm 500 - 2000 Pa
ES 306	Ventilation alarm 1000 - 5000 Pa

Available for 230 VAC, 24V AC or 24V DC supply
Available in IP 22 or IP 54 enclosure

WEEE

Electrical and electronic equipment contains material which may be hazardous to human health and environment if it is not handled correctly at disposal. Electrical and electronic equipment is marked with a crossed-out wheelee bin logo. This logo symbolises that electrical and electronic equipment must not be disposed of together with normal household waste but must be collected separately. Contact your local authorities for further information on disposal of equipment under the WEEE directive.



The product complies with the following CE directives:

LVD 73 / 23 / EØF
EMC 89 / 336 EØF



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