

EAF 180

Electronic air flow and filter controller
with safety function



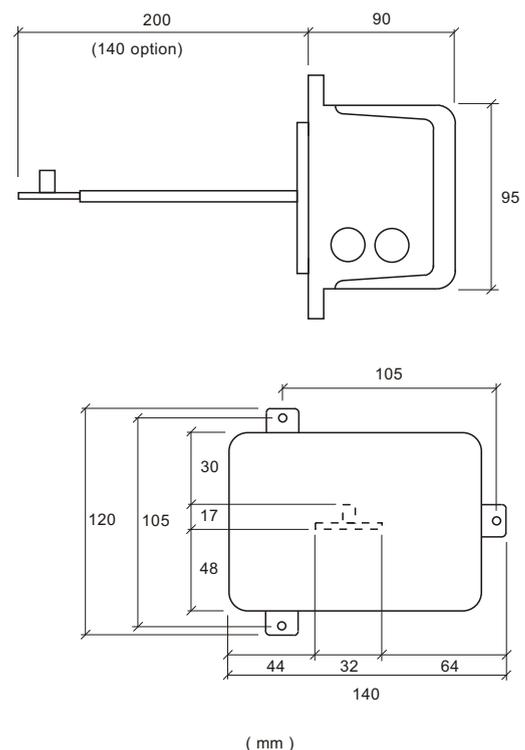
EAF 180 is an electronic flow controller without moving parts. The unit measures the air velocity and is used for the supervision and/or control of the air flow in ducts and similar spaces.

This controller has two output alarm relays with separate alarm settings. Normally level 1 is used for filter control and level 2 for the safety function at electric heating.



TECHNICAL DATA

Supply voltage:	24 VAC $\pm 15\%$ 50-60 Hz
Power consumption:	5 VA
Measuring range:	0,6 - 15 m/s
Temperature range:	0°C to +70°C
Alarm point drift vs. temp:	max 0,2% / °C
Humidity range:	max 90% RH
Output:	2 x Relay, SPDT max. 250 VAC/2A
Protective housing:	IP 44
Housing material:	ABS plastic, blue/black



MOUNTING

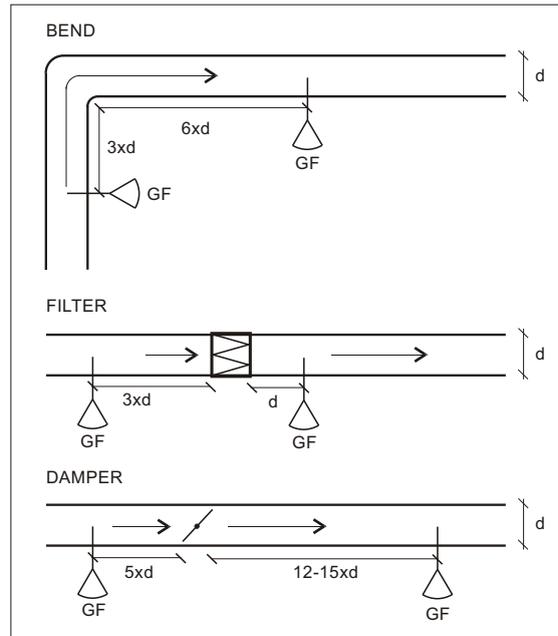
The detecting element should be surrounded by an even air flow and positioned with regard to the direction of flow as shown by the arrows on housing. This means that it may be installed laying or upright, in vertical or horizontal air stream.

Place the detecting element at least as far from the heating and cooling batteries or the humidifying equipment as normal duct temperature detectors. It should furthermore be placed such that the distance to the nearest air disturbance (for example bend, filter or damper) is at least as shown in withstanding figure.

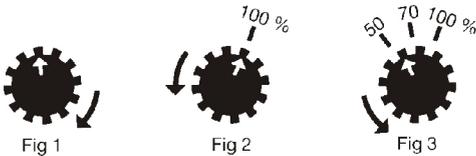
WARNING

Do not place detecting element before filter and heater in system for inlet air. (Corrosion)

Use corrosion protected type EAF 180 E



ADJUSTMENT



Let the controller work min. 5min. (warm up period) at nominal flow before alarm level set.

In this flow controller two different alarm levels can be set. Each with separate output relay. Start with rotating set knob towards MAX, stop when the alarm relay changes over and the light diode lights up. (fig.1)

From this point rotate slowly back towards MIN until the alarm relay changes over again and the light diode goes out. This scale position corresponds to the nominal flow - 100% (fig.2)

Now adjust the desired alarm level by rotating the knob further towards MIN (fig.3)

Backing the distance from one scale position to next gives alarm set to 70% of nominal flow, two positions gives 50%.

As the nominal air flow varies with different plants it is not possible to mark in advance the scale position for 100%. The above example is only used to illustrate the method of adjustment.

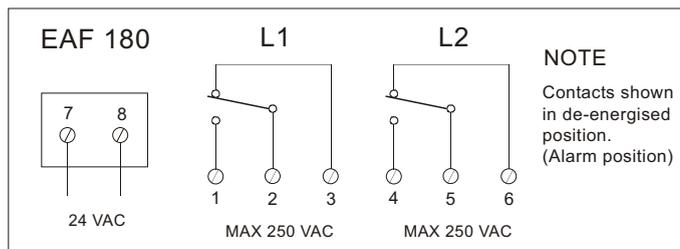
Important

In plants where the fan is switched off on release of the flow controller, contacts on alarm relay may be bridged, while the unit is being adjusted.

FUNCTION

Power supply	Alarm function
Supply to the flow controller is switched on-off with the fan.	At fan start, the relay makes to indicate air flow. If the air flow is insufficient, the relay breaks after 60 sec. to give alarm. Alarm is activated at shut-off and at power failure.
Constant supply to the flow controller.	At fan start there is a delay of 20-60 sec before the relay makes to indicate air flow. Alarm is activated at shut-off and at power failure.

CONNECTING DIAGRAM



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