FEV sensors Control of heating circuit



Products

Application



The FEV is a proportional controller which opens or closes the heating valve as a function of the temperature deviation.

FEV-IF

To be applied in systems with i.e. ceiling-, floor- or radiator heating. The temperatureadjuster/sensor should be mounted on an internal wall at a height of approximately 1.5 meter in such a way that the room temperature can be measured accurately.

FEV-FF

To be applied in systems with i.e. fancoils or induction units. By placing the remote sensor in the room-air inlet of the unit a smaller response time to temperature changes can be achieved which will result in a more accurate temperature control.

Ordering and specifications	Туре	Code no.	Sensor	Capillary tube	Setting range
	FEV-IF	013G5467	Integrated sensor	5 m	17-27 °C
	FEV-FF	013G5466	Remote sensor	2 + 2 m	



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FEV sensors

FEV sensor design



FEV sensors can be applied in combination with RA-N RA-G or RA-C valves. The FEV sensors are equipped with a direct acting valve-controller that opens the valve when the temperature drops below the set temperature. If the set temperature is equal to or higher than the room temperature the valve is closed.

Temperature setting



The FEV sensors have been developed for heating via water-based systems.

The FEV sensors are based on the self-acting principle. The liquid-filled sensors control the valves via capillaries and adapters.

The scale shows the approximate set-point offset from the comfort temperature which is approximately 22° C at X_p = 0 K.

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Temperature control through heating with FEV



When the knob has been set in the middle position the valve will open at temperatures lower than 22°C. A setting in the red zone means the valve will open at a higher room temperature. A setting in the blue zone means the room temperature will be kept at a value lower then 22 °C.



Example



The comfort temperature is lowered by 4° C by turning the knob to a setting in the blue area. Because the scale is calibrated at Xp=0 K(°C) the valve will open when the temperature drops below 18 °C. In the presetting "N" of the valve the combination FEV/RA works with a P- band of approximately 2 K (°C). This means the valve will be fully open and the flow maximal when the sensor reaches a temperature of approx. 16 °C ($18^{\circ}C$ minus 2 K).

Limiting the set temperature of FEV sensors

The set temperature of the remote temperature adjuster depends on the sensor type and the valves, which are used with the sensors. It is easy to limit or lock the set temperature by means of the built-in locking/limiting device.



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FEV sensors

Design

- Heating adapter
 Actuator
 Adjustment bellows
 Capillary reel 5. Remote temperature ad-
- juster
- 6. Bellows
- Remote temperature sensor 7. (FEV-FF)







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