

## Device Description

## AF24/AF24S Actuating Drives with Spring Return

### Application

AF24 and AF24S actuating drives with spring return are used to control air valves with fail-safe operation in ventilation and air conditioning systems. The drive is equipped with a universal terminal block and is mounted directly on the air valve axle. The actuating drive is overload resistant. When the valve or motor stop is reached, the motor stops automatically.

### Types

AF24 AC 24 V actuating drive with spring return  
 AF24S AC 24 V actuating drive with spring return and two auxiliary switches  
 Each controlled by 2-point signal

### Technical data

Mains	Nominal voltage	AC 24 V, 50/60 Hz, 10 VA
	Functional range	AC 19.2..28.8 V
Connection	AF24	Cable: 1 m long, 2 x 0.75 mm <sup>2</sup>
	AF24S	Motor: Cable: 1 m long, 2 x 0.75 mm <sup>2</sup> Auxiliary switches: Cable: 1 m long, 6 x 0.75 mm <sup>2</sup>
Actuating signal	2-point signal	
Torque	Motor:	15 Nm at nominal voltage
	Spring return:	15 Nm
Rotational angle	Max. 95°, adjustable 26..95% rotational angle by rotational angle limitation (supplied)	
Rotational direction	Selectable by mounting CCW or CW (see reverse side)	
Position indicator	Scale on actuating drive	
Run time	Motor:	approx. 150 s
	Spring return:	approx. 16 s
Auxiliary switches	Only AF24S	2 changeover switches, 250 V, 6 (3) A
	Switching point	1 x 5% fixed rotational angle, 1 x 26..89% adjustable rotational angle
Degree of protection	IP54	
Ambient temperature	-30..+50° C	
Weight	1.3 kg	
Maintenance	Maintenance-free	

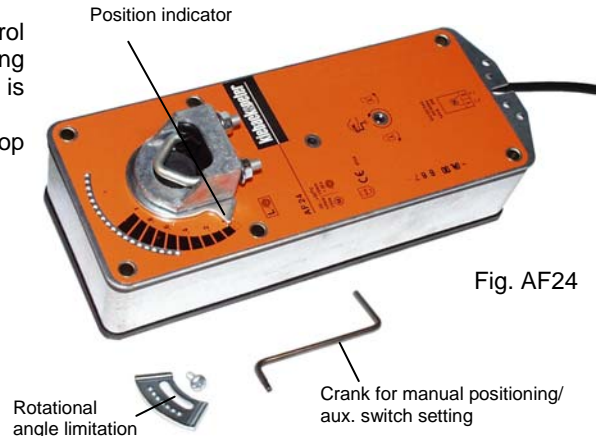
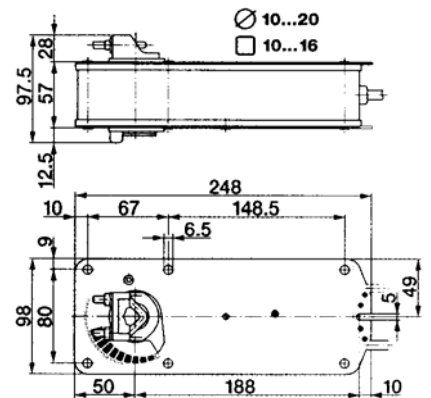


Fig. AF24

### Dimensions



### Function

The actuating drive with spring return moves the air valve into operating position while applying tension to the return spring. When the power supply is interrupted, the return spring moves the air valve back into the fail-safe position. When the power supply is switched off, the air valve can be moved manually into any position using the crank that is supplied with the actuating drive (see reverse side). The actuating drive is released either manually or automatically when the power supply is applied.

### Installation



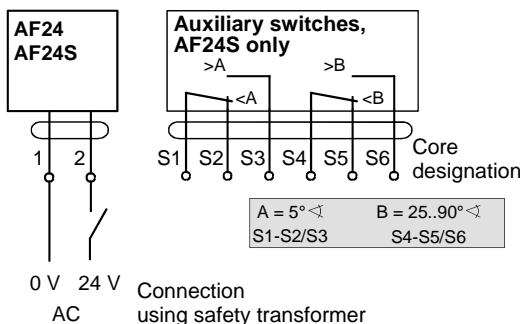
Danger

**Caution! 230 V mains voltage may be present on the auxiliary switch connection. Electrical installation and unit connection may only be carried out by qualified technicians, e.g. an electrician.**

Install the actuating drive in accordance with VDE guidelines and local regulations.

The unit is connected according to the terminal connection diagram or the legally binding system circuit diagram.

### Wiring diagram



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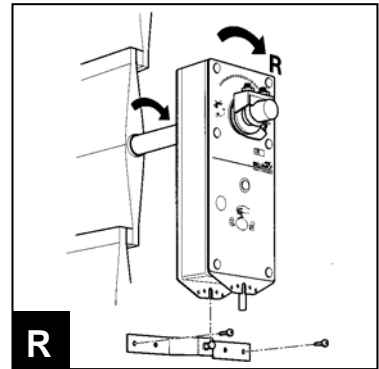
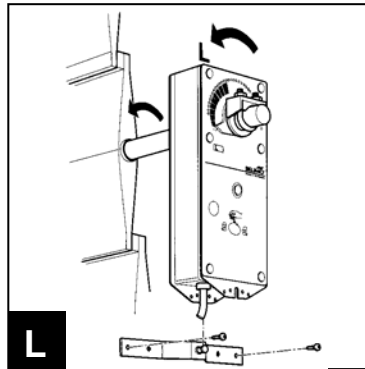
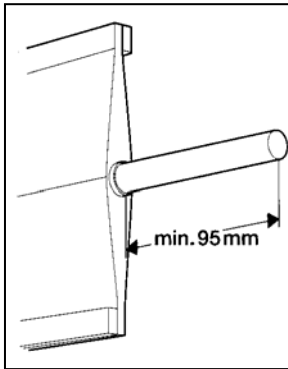


**Mounting and setting instructions**

Mounting example  
For air valve axles  
at least 95 mm long

L CCW: Spring return  
counterclockwise rotation

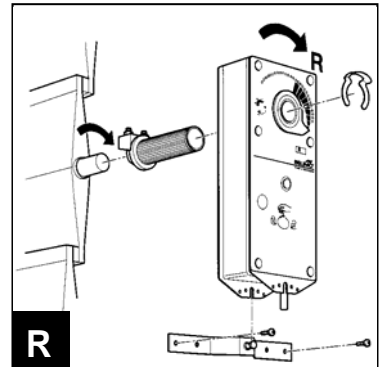
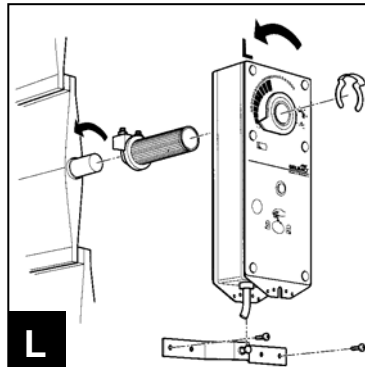
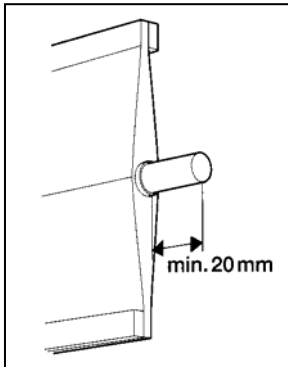
R CW: Spring return  
clockwise rotation



Mounting example  
For air valve axles  
at least 20 mm long  
replug terminal block

L CCW: Spring return  
counterclockwise rotation

R CW: Spring return  
clockwise rotation

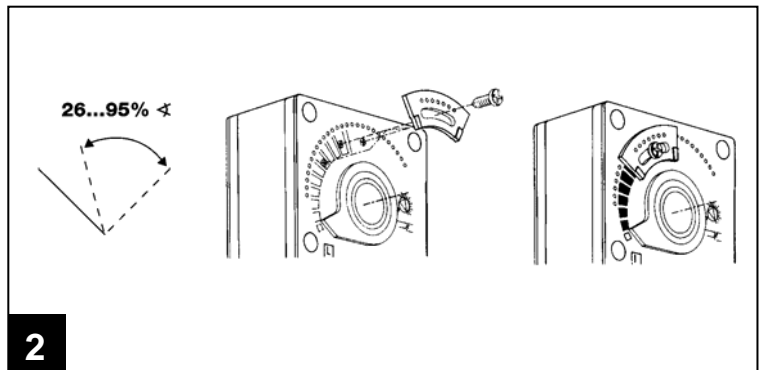
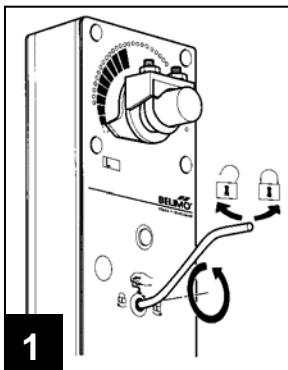


**Mounting accessories**

- ZG/AF2 Accessories for actuating linkage
- AV10/18 Axle extension approx. 240 mm for valve axles  $\varnothing$  10..18 mm /  $\square$  10..14 mm  
(Description: see technical data sheet 3.50-31.090-01)

1 Manual positioning and  
valve setting with  
crank

2 Limiting the rotational  
angle



**AF24S only**

Setting the 2<sup>nd</sup> aux.  
switch  
(connections S4 - S5/S6)  
with crank

