

ASF 122, 123: Actuators with spring return

How energy efficiency is improved

Overload protection and end stop detection for efficient energy use.

Areas of application

For controllers with a switching output (2-point or 3-point control). For actuation of air, shut-off and restrictor dampers and louvres.

Features

- 18 Nm torque and holding torque
- 230 V, 50/60 Hz or 24 V~/=
- 90 sec. running time for 90°
- Protection class IP54, vertical
- Self-centring axle adaptor
- Manual adjustment with hexagon socket, including locking gears
- Non-wearing, brushless motor
- Maintenance-free

Technical description

- Robust all-metal housing
- Suitable for all installation positions
- Connecting cable 0.9 m long, 0.75 mm²
- Change direction of rotation simply by turning the drive



Type 4



Y01994

Type	Running time for 90° in s		Control function	Power	Weight kg
	Motor	Spring return			
ASF 122 F120	90	15	2-point	230 V~	2,0
ASF 122 F122	90	15	2-point	24 V~ / 24...48 V=	2,0
ASF 123 F122	90	15	3-point	24 V~ / 24...48 V=	2,0
With double auxiliary contacts ¹⁾ 6 (2) A; 24...250 V~ with cable of 0,9 m; 6 × 0,75 mm ²					
ASF 122 F220	90	15	2-point	230 V~	2,1
ASF 122 F222	90	15	2-point	24 V~ / 24...48 V=	2,1
Power supply	230 V~ ± 10%, 50...60 Hz 24 V~ ± 20%, 50...60 Hz 24...48 V= ± 20%		Degree of protection see Fitting Instructions ²⁾		IP 42 as per EN 60529 IP 54
Power consumption	ASF 122 F120 5,8 W 7,9 VA ASF 123 F122 5,8 W 7,7 VA		Protection class		230 V~ II as per IEC 60730 24 V~/= III as per IEC 60730
Torque and holding torque	18 Nm		Wiring diagram		ASF 122 A05769 ASF 123 A05770
Angle of rotation	max. 90°		Dimension drawing		M05768
Permissible damper area ³⁾	approx. 3 m ²		Fitting instructions		MV 505422
Permissible ambient temp.	-32...55 °C				
Permissible ambient humidity	5...95 %rh				

Accessories

0370997 001 Lever adaptor for changing the rotary movement into stroke; MV 505430

0370998 001 Lever adaptor for changing the rotary movement into stroke;
with plate for fixing to wall or plinth; MV 505431

1) Switching range 5°...85° (factory setting), variable in steps of 5°, switching difference 2°

2) Degree of protection IP 54, see positional information on MV 505422

3) Recommended value for easy-acting air damper

Operation

Two-point version

After the power supply has been connected, the final control element is moved towards the 90° position until the load-dependent cut-off operates (scale on drive; max. angle of rotation 95°). The gears (with the brushless d.c. motor) is stopped and blocked. In the event of a power failure, or when the power is switched off, the motor releases the gears, and the coupling piece is turned back by the spring to the 0° position.

Three-point version

The drive turns from 0° to 90° when power is applied to terminal 2 (purple wire), and from 90° to 0° when applied to terminal 3 (orange wire). In the mid-position of the 3-point controller, the drive stops. In the event of a power failure or when the power is switched off by a safety device at terminal 21 (red wire), the motor releases the gears, and the coupling piece is turned back by the spring to the 0° position.

In the two end positions (on reaching either the damper stop, the stop of the angle limiter or the maximum angle of 95°) or in the event of an overload, the torque-dependent cut-out comes into operation (no limit switches).

Engineering and fitting notes

The use of electronics allows several dampers with different torques to be run in parallel. It is essential that the operating voltage lies within the prescribed tolerances. The actuator can be mounted in any position, can be inserted directly onto the damper shaft and is fixed using the self-centring clamp.

The subsequent fitting of auxiliary switches or potentiometers is not possible.

The angle of rotation can, between 0° and 90°, be limited in steps of 5°.

N.B.: The housing must not be opened, since the return spring may cause injury.

Fitting outdoors. If the devices are fitted outdoors, we recommend that additional measures be taken to protect them against the effects of the weather.

Additional technical data

The two-part housing (which must not be opened) contains: the brushless d.c. motor; the electronic control unit; the maintenance-free, non-jamming gears; the return spring; and (on the 230 V model) the transformer. The direction of operation can be changed by fitting the actuator onto the damper spindle the other way round (changing the rotary direction of the safety function). The coupling piece is suitable for damper spindles of \varnothing 8...25 mm and \square 6...8 mm.

Using the Allen key supplied, the drive can be turned to, and locked in, any position (see MV 505422). The gears are freed again either by unlocking them mechanically or by applying the operating power.

Power consumption:

Type	Running time s	Condition	active power P W	apparent power S VA
ASF 122 F120	90	Operating	5,8	7,9
		Standstill	2,85	5,15
ASF 123 F122	90	Operating	5,8	7,7
		Standstill	2,1	3,0

CE conformity

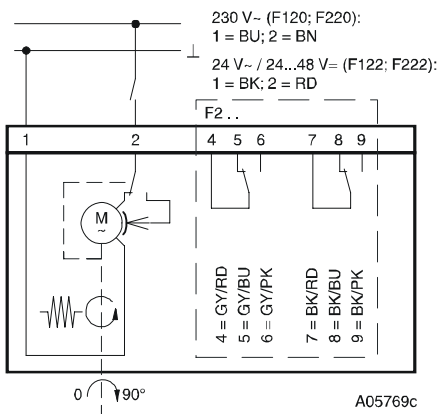
EMC directive 2004/108/EC
EN 61000-6-2
EN 61000-6-3

Machine directive 98/37/EEC (II B)
EN 1050

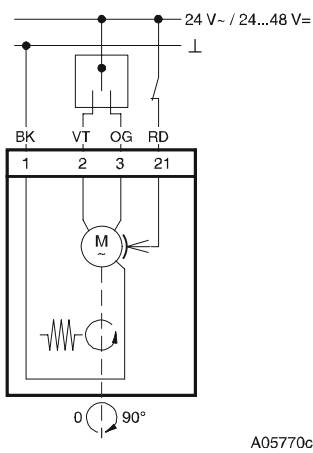
Low-voltage directive 2006/95/EC
EN 60730-1
EN 60730-2-14
Over-voltage category III
Degree of pollution II

Wiring diagrams

ASF 122 (2 pt)



ASF 123 (3 pt)



Dimension drawing

