



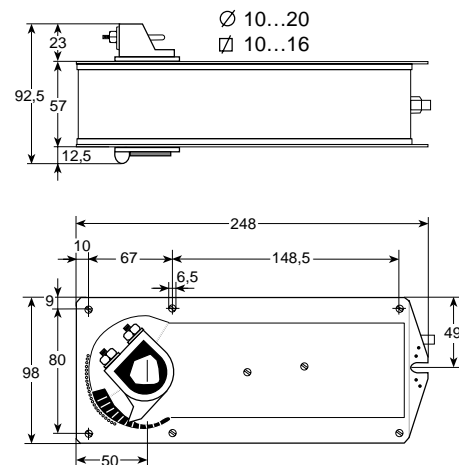
The FMA 24 and FMA 230 open/close spring return actuators are intended for operation of air dampers of up to approximately 3 m² cross sectional area that perform safety functions, e.g. frost and smoke protection, hygiene, etc.

The spring return only operates as a safety function if the power supply fails or is interrupted. The spring pretensioning can be preset.

The FMA 24-BB and FMA 230-BB motors have two auxiliary switches for signalisation.

TECHNICAL DATA

Part number:	
FMA 24	874-0000-010
FMA 24-BB	874-0010-010
FMA 230	875-0000-010
FMA 230-BB	875-0010-010
Power supply:	
FMA 24 (-BB) 24 V AC ±20%, 50–60 Hz, 24 V DC ±10%	
FMA 230 (-BB)	230 V AC ±14%, 50–60 Hz
Power consumption:	
FMA 24 (-BB), opening	5 W
FMA 24 (-BB), open	1,5 W
FMA 230 (-BB), opening	6,5 W
FMA 230 (-BB), open	2,5 W
For wire sizing:	
FMA 24 (-BB)	10 VA
FMA 230 (-BB)	11 VA
Auxiliary switch Open/Close. 2 * SPDT 6 (2,5) A, 250 V AC	
Connection cable:	
Motor	0,9 m long, 2 * 0,75 mm ²
Auxiliary switches (BB)	0,9 m long, 6 * 0,75 mm ²
Angle of rotation	max. 95° (adjustable 30–90°)
Torque:	
Motor	min. 15 Nm
Spring return	min. 15 Nm
Running time:	
Motor	approx. 150 s
Spring return	approx. 16 s
Direction of rotation	selected by L/R mounting
Position indication	mechanical
EMC interference, emission	to EN 50081-1

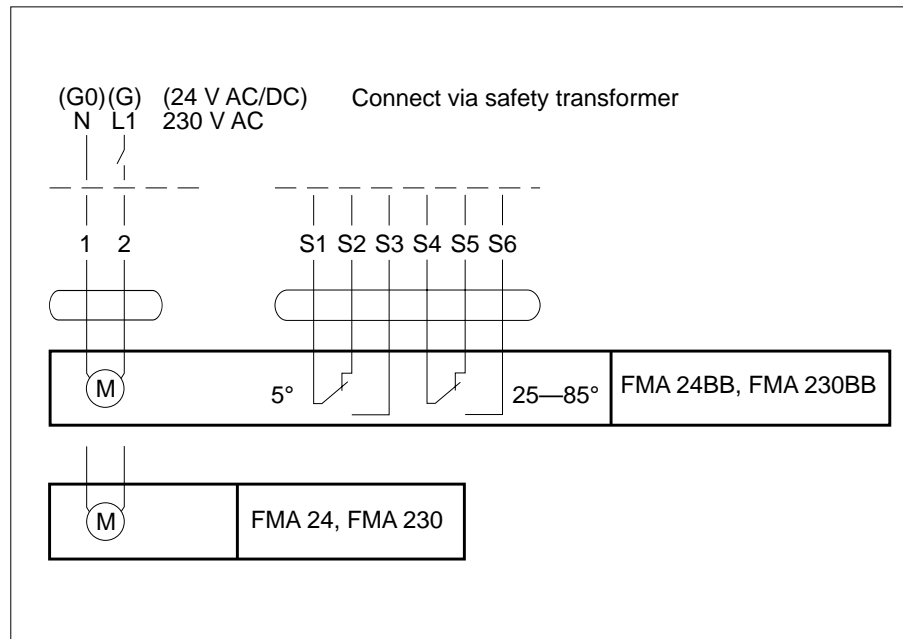


Protection class:	
FMA 24	III
FMA 24-BB, FMA 230 (-BB)	II
Enclosure rating	☼ drip-proof (IP42)
Ambient humidity	class D to DIN 40040
Ambient temperature:	
Operation	–30 to +50 °C
Storage	–40 to +80 °C
Sound power level	motor max. 45 dB (A)
Service life	approx. 60 000 operations
Maintenance	maintenance-free
Weight:	
FMA 24 (-BB)	3000 g
FMA 230 (-BB)	3300 g

WIRING DIAGRAM

FMA 230 (-BB): To isolate from the main power supply a device must be installed which provides all-pole disconnection (with at least a 3 mm contact gap).

Parallel connection of several motors is possible. Electrical data must be observed.



MODE OF OPERATION

The motor is fitted with a universal spindle clamp for quick and easy mounting directly onto the damper spindle. The motor is also supplied with an anti-rotation strap for fixing it in position. The direction of rotation is selected by mounting left or right.

The damper can be operated manually and locked in the required position. Release of the locking mechanism can be achieved manually or automatically by applying the supply voltage.

The motor moves the damper to its normal working position while tensioning the return spring at the same time.

If the power supply is interrupted, the energy stored in the spring moves the damper back to its safe position $\leq 0^\circ$.

The motor is supplied from the factory with 5° of pretensioning. The pretensioning can be unlocked manually by means of a crank or electrically by connecting the power supply. The motor will then be moved back to its safe position $\leq 0^\circ$.

VARIABLE END SWITCH

The FMA 24(230)-BB motor has one fixed auxiliary switch and one adjustable auxiliary switch which allows angle of rotation of 5° and between 25° and 85° to be signalled.

NOTE

When calculating the torque required to operate dampers, it is essential to take into account all the data supplied by the damper manufacturer concerning cross sectional area, design, mounting and air flow conditions.