

ASM 102, 112, 122: Damper actuator, 230 V

How energy efficiency is improved

Torque-dependent cut-off facility for efficient usage of energy

Features

- For operating air dampers of different sizes in HVAC systems
- For controllers with switching (2- and 3-point) output
- Suitable for all fitting positions
- Adjustable angle of rotation
- Direction of rotation changed by toggle switch on the housing
- Manual positioning push button
- Maintenance-free gear unit



ASM112F320

Technical data

Power supply		
Power supply		230 V~, ±10%, 50...60 Hz
Parameters		
Control		2-/3-point
Angle of rotation		Max. 95°
Operating noise		≤ 45 dB (A)
Mechanical serviceable life		Approx. 60,000 rotations
Ambient conditions		
Operating temperature		-20...50 °C
Storage and transport temperature		-30...60 °C
Ambient humidity		5...85% rh, no condensation
Construction		
Housing		Lower section black, upper section yellow
Housing material		Fire-retardant plastic
Power cable		1.0 m long, 3 × 0.75 mm ²
Standards and directives		
Type of protection		IP54 (EN 60529), horizontal position (cover on top)
Protection class 230 V		II (EN 60730)
Environment class		3K3 (IEC 60721-3)
Mode of operation		Type 1 (EN 60730-1)
Conformity		
EMC Directive 2014/30/EU		EN 55014-1:2017, EN 55014-2:2015 EN 55032:2015 / AC:2016 EN 61000-4-2:2009 EN 61000-4-3:2006 / A2:2010
Low-Voltage Directive 2014/35/EU		EN 60730-1:2016 / A2:2019 EN 60730-2-14:2019

Overview of types

Type	ASM102F310	ASM102F310A	ASM112F320	ASM112F320A	ASM122F320	ASM122F320A
Torque and holding torque	5 Nm	5 Nm	10 Nm	10 Nm	20 Nm	20 Nm
Running time for 90°	70...100 s	70...100 s	100...120 s	100...120 s	70...120 s	70...120 s
Admissible damper surface area	1 m ²	1 m ²	2 m ²	2 m ²	4 m ²	4 m ²
Admissible damper shaft	∅ 6...15 mm, □ 5...10.5 mm	∅ 6...15 mm, □ 5...10.5 mm	∅ 10...20 mm, □ 5...14 mm	∅ 10...20 mm, □ 5...14 mm	∅ 12...20 mm, □ 11...14 mm	∅ 12...20 mm, □ 11...14 mm
Damper shaft length	Min. 40 mm	Min. 40 mm	Min. 45 mm	Min. 45 mm	Min. 40 mm	Min. 40 mm



Type	ASM102F310	ASM102F310A	ASM112F320	ASM112F320A	ASM122F320	ASM122F320A
Power consumption	2.0 W, 4.0 VA	2.0 W, 4.0 VA	6.0 W, 6.5 VA	6.0 W, 6.5 VA	8.0 W, 8.0 VA	8.0 W, 8.0 VA
Weight	0.7 kg	0.7 kg	1 kg	1 kg	1.2 kg	1.2 kg
Auxiliary switch	–	1 × SPDT	–	1 × SPDT	–	2 × SPDT
Mode of operation	Type 1 AB	Type 1 AB, C	Type 1 AB	Type 1 AB, C	Type 1 AB	Type 1 AB, C

⚡ Auxiliary change-over contacts: Infinitely variable 0...90°, admissible load 2(1.5) A, 250 V~

⚡ SPDT: Single Pole Double Throw switch with one input terminal and two output terminals

Description of operation

When voltage is applied to the cable, the control unit to be activated is moved to any desired position. In the end positions, the electronic end position detection (motor cut-off) is activated. In the case of an overload, a magnetic coupling secures the gear unit. The effective end position results from the limit stop of the damper or the angle-of-rotation limit or by reaching the maximum angle of rotation of 95°. The manual adjustment is performed by turning the spindle adaptor after releasing the gear unit (Positioning push button when required).

The two-part section of the housing contains the brushed DC motor, the electronic control unit and the maintenance-free gear unit with the anti-blocking function.

Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the "Description of operation" section.

All related product regulations must also be adhered to. Changing or converting the product is not admissible.

Improper use

This product is not suitable/permitted:

- for mixing of electrical circuits, e.g. 230 V actuator and 24 V switching elements
- in outdoor areas and higher than 2000 m above sea level
- on means of transport, e.g. ships.

Engineering and fitting notes



Note

Only qualified electricians are permitted to fit and connect the actuator.
Prevent access by laypersons.

The actuator can be fitted in any position. It can be plugged directly onto the damper spindle and fixed by means of the self-centring clamping lever.

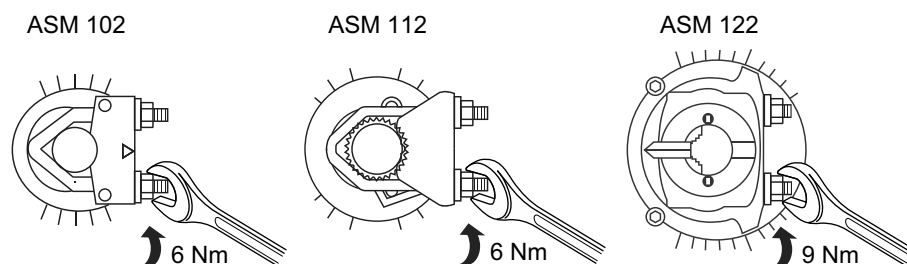


Note

Do not open the housing.
Do not uncouple the gearbox under load.

The angle of rotation can be continuously adjusted between 0° and 90°. The limitation is defined by means of a setting disc (under the coupling piece).

Adapter clamp tightening torque



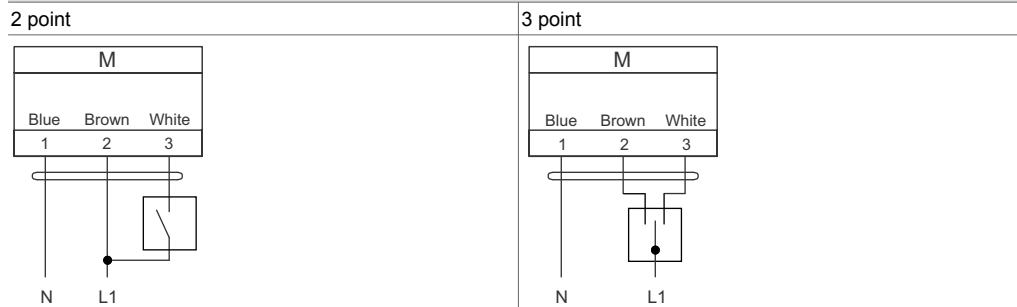
Disposal

When disposing of the product, observe the currently applicable local laws.

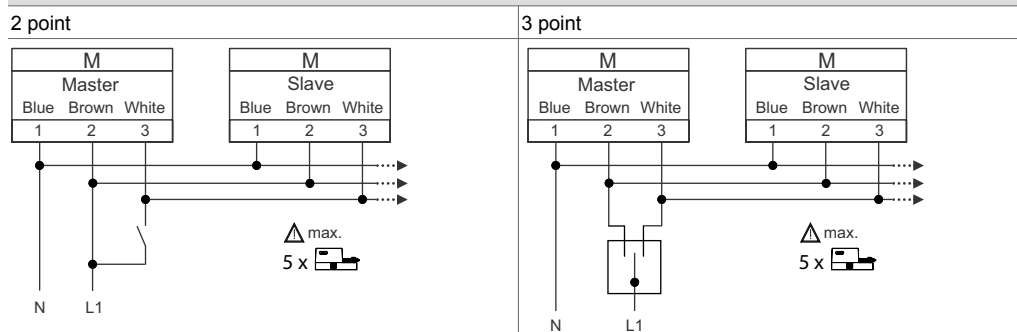
More information on materials can be found in the Declaration on materials and the environment for this product.

Connection diagram

Power supply 230 V

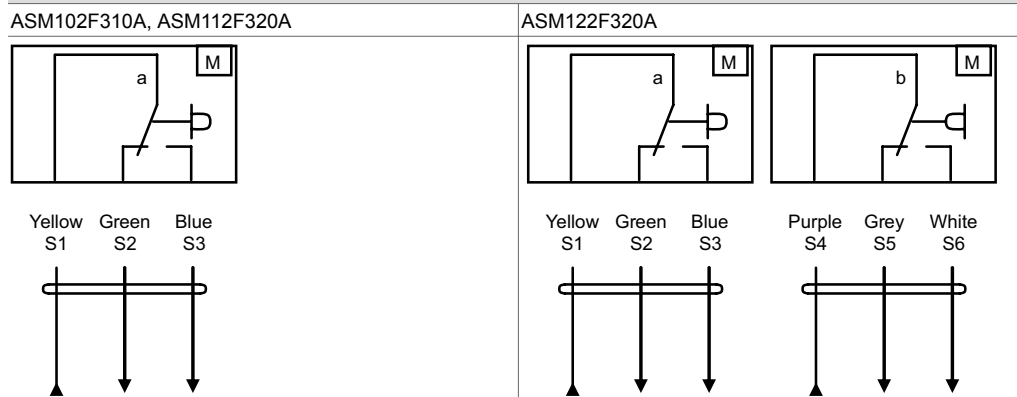


Parallel connections



Parallel connection of the damper actuators are limited to five. The power consumption must be observed

Auxiliary switch

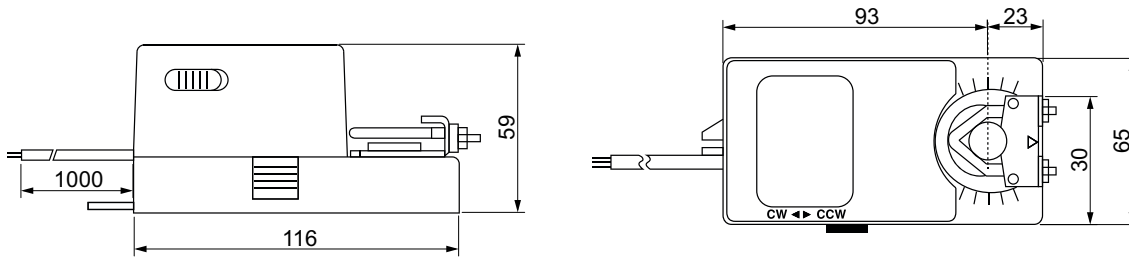


Actuator at 0° position

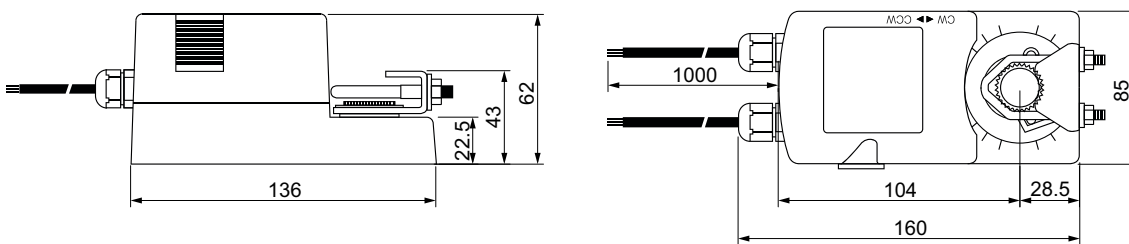
Dimension drawing

All dimensions in millimetres.

ASM 102



ASM 112



ASM 122

