

## Data sheet

# Actuators for three point control AMV 110 NL, AMV 120 NL

### Description



The actuators are used together with automatically balanced combination valve type AB-QM for DN 10 to DN 32.

Typical applications for that products are: temperature control and permanent automatic balancing on terminal units (fan-coils, chilled ceilings, air-handling units..).

#### Main data:

- Gap detection at stem up position
- 3 point version
- Force switch-off at stem down position prevents overload of actuator and valve
- No tools required for mounting
- Maintenance-free lifetime
- Low-noise operation
- Halogen free cables

### Ordering

| Type       | Supply voltage | Speed   | Cable length | Code No.        |
|------------|----------------|---------|--------------|-----------------|
| AMV 110 NL | 24 V~          | 24 s/mm | 1.5 m        | <b>082H8056</b> |
|            |                |         | 5.0 m        | <b>082H8076</b> |
| AMV 120 NL |                | 12 s/mm | 1.5 m        | <b>082H8058</b> |

*Note: other actuators with 5m and 10m cable length on request.*

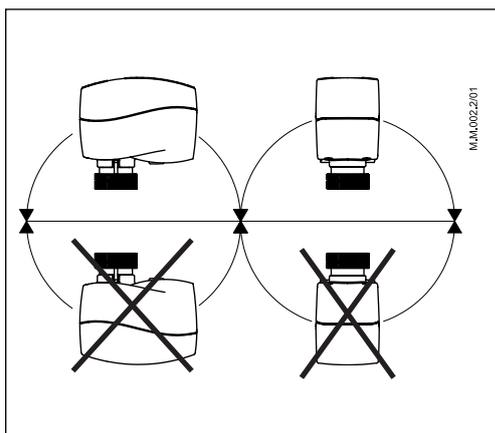
#### Spare parts

| Type         | Length | Code No.        |
|--------------|--------|-----------------|
| Cable (24 V) | 5 m    | <b>082H8052</b> |
|              | 10 m   | <b>082H8054</b> |

### Technical data

| Type   | AMV 110 NL  | AMV 120 NL |
|--|---|------------|
| Power supply   | 24 VAC, +10 to -15%   |            |
| Power consumption  | 1 VA  |            |
| Frequency  | 50 Hz/60 Hz   |            |
| Close of force   | 130 N   |            |
| Stroke   | 5 mm  |            |
| Speed  | 24 s/mm   | 12 s/mm    |
| Max. medium temperature  | 120 °C  |            |
| Ambient temperature  | 0 ... 55 °C   |            |
| Storage and transport temperature  | -40 ... +70 °C  |            |
| Protection class   | III safety extra-low voltage  |            |
| Degree of protection   | IP 42   |            |
| Weight   | 0.3 kg  |            |
|  - marking in accordance with standards | Low Voltage Directive 2006/95/EC: EN 60730-1, EN 60730-2-14<br>EMC Directive 2004/108/EEC: EN 61000-6-2, EN 61000-6-3 |            |

Installation



Mechanical

The actuator should be mounted with the valve stem in either horizontal position or pointing upwards.

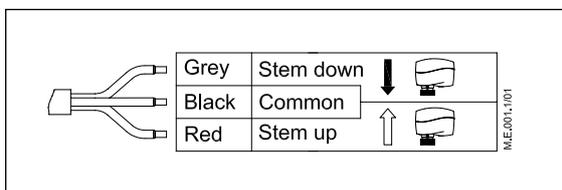
The actuator is fixed to the valve body by means of a mounting ring, which requires no tools for mounting. The ring should be tightened by hand.

Electrical

**Important:** It is strongly recommended that the mechanical installation is completed before the electrical installation.

Each actuator is supplied with the connecting cable for the controller.

Wiring



Commissioning

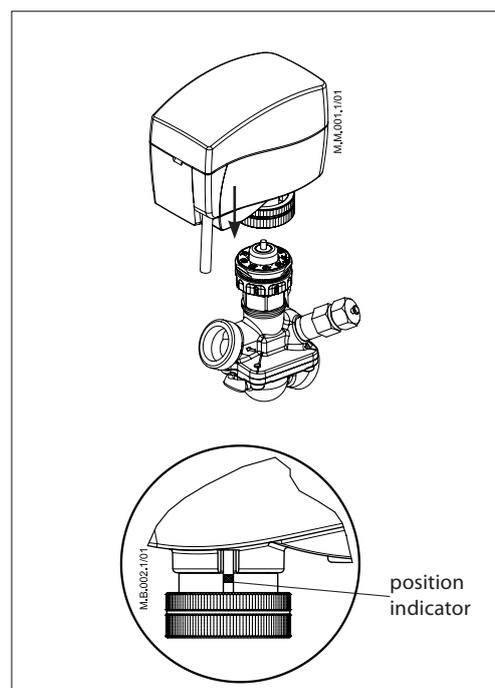
The factory setting of the spindle is the fully stem up position because of easier mechanical connection of the actuator on the valve.

Installation and commissioning procedure (if required)



Do not touch anything on the PCB!  
Do not remove the cover before the power supply is fully switched off.

1. Check the valve neck. The actuator should be in stem up position (factory setting). Ensure that the actuator is mounted securely on the valve body
2. Wire the actuator according to the wiring diagram
3. The direction of the stem movement can be observed on the position indicator



**Disposal**

The actuator must be dismantled and the elements sorted into various material groups before disposal.

**Manual override**

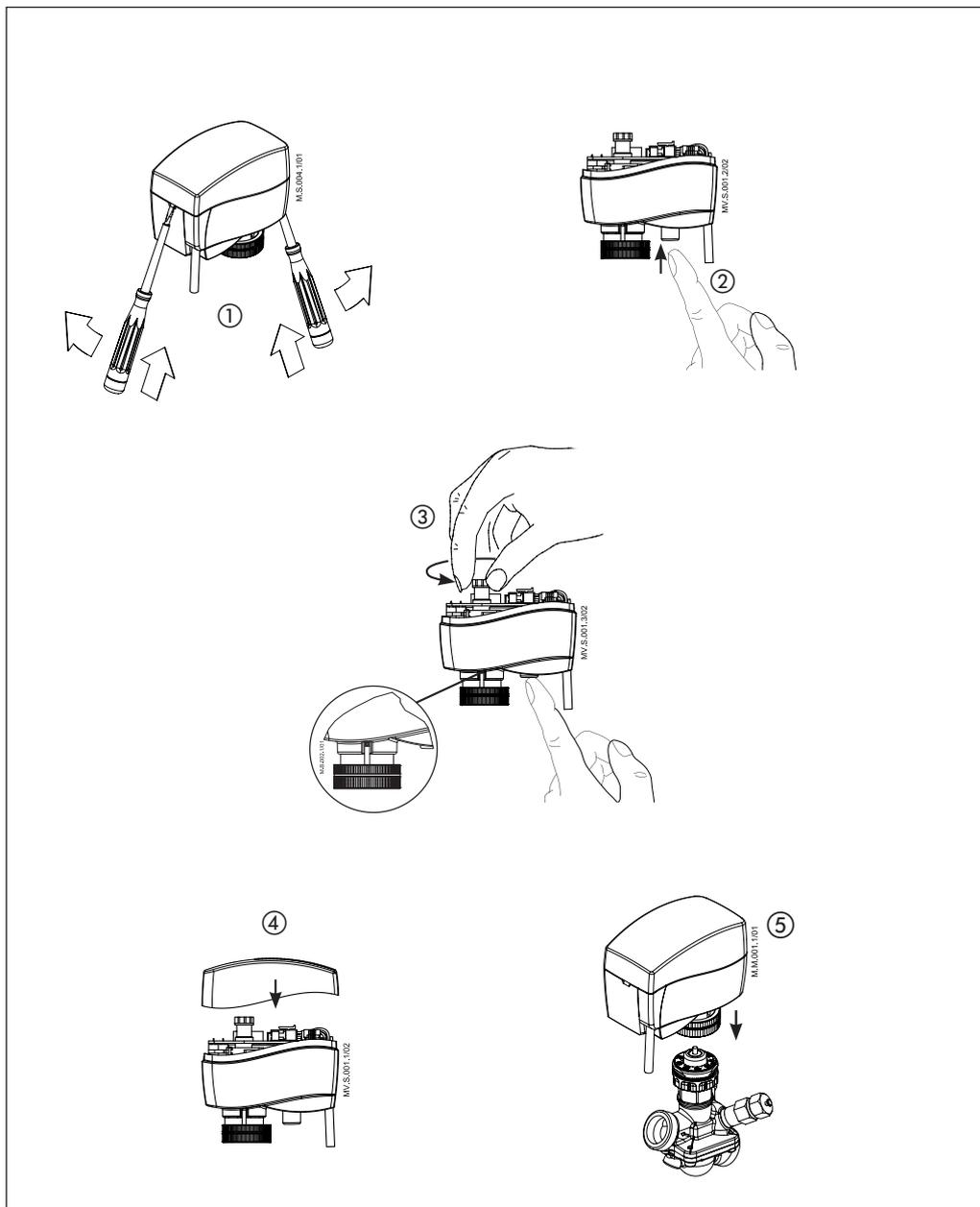
(for service purposes only)



**Caution:**  
Do not manually operate the drive if power is connected!

**Do not dismantle the actuator from the valve when it is in a stem down position!**

If dismantled in a stem down position, there is a high risk that the actuator gets stuck.



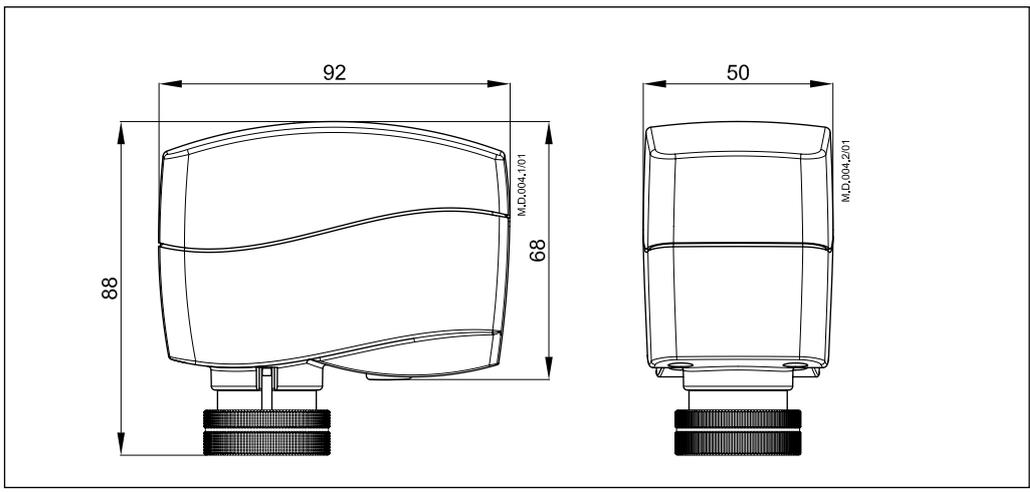
**AMV 110 NL, AMV 120 NL**

- Remove cover ①
- Press and hold the button ② (on the bottom side of the actuator) during manual override ③
- Replace cover ④
- Install actuator on valve ⑤

**Remark:**

A 'click' sound after energising the actuator indicates that the gear wheel has jumped into normal position.

Dimensions (mm)



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