

Data sheet

Actuators for three point control

AMV 85, AMV 86

Description



The actuators AMV 85 and AMV 86 are used with VFM 2 (DN 150-250), VFS 2 (DN 65-100), VF2/3 (DN 125, 150) and AFQM (DN150-250) valves.

Features:

- "Self stroking" function
- Load related "Switch off" function that prevents overloading
- Manual operation
- Diagnostic LED

Main data:

- Nominal voltage:
 - 24 VAC, 230 VAC, 50 Hz/60 Hz
- Control input signal: 3-point
- Force: 5000 N
- Stroke: 40 mm
- Speed: 8 s/mm (AMV 85), 3 s/mm (AMV 86)
- Max. medium temperature: 200 °C
- Manual operation

Ordering

Actuator

| Type | Power supply (V~) | Speed (s/mm) | Code No. |
|--------|-------------------|--------------|-----------------|
| AMV 85 | 24 | 8 | 082G1450 |
| | 230 | | 082G1451 |
| AMV 86 | 24 | 3 | 082G1460 |
| | 230 | | 082G1461 |

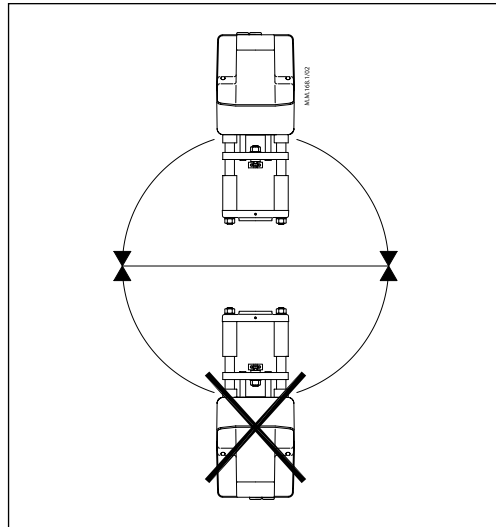
Accessories

| Type | for actuators | Code No. |
|--|---------------|-----------------|
| Additional switches (2x) | AMV 86/3/24 | 082H7050 |
| | AMV 86/3/230 | 082H7051 |
| | AMV 85/8/24 | 082H7072 |
| | AMV 85/8/230 | 082H7071 |
| Additional switches (2x) and potentiometer (10 kΩ) | AMV 86/3/24 | 082H7081 |
| | AMV 86/3/230 | 082H7080 |
| | AMV 85/8/24 | 082H7083 |
| | AMV 85/8/230 | 082H7082 |
| Stem heater | | 065Z7021 |

Technical data

| Type | | AMV 85 | AMV 86 |
|--|------|---|--------|
| Power supply | V~ | 24 AC, 230 AC ; +10 to -15% | |
| Power consumption | VA | 10.5 | 23 |
| Frequency | Hz | 50 / 60 | |
| Control input | | 3-point | |
| Cl force | N | 5000 | |
| Max. stroke | mm | 40 | |
| Speed | s/mm | 8 | 3 |
| Max. medium temperature | | 200 | |
| Ambient temperature | °C | 0 ... 55 | |
| Storage and transport temperature | | -40 ... +70 | |
| Protection Class | | II | |
| Grade of enclosure | | IP 54 | |
| Weight | kg | 9.80 | 10.0 |
| - marking in accordance with the standards | | Low Voltage Directive 73/23/EEC and 93/68/EEC, EN 60730/2/14 | |
| | | EMC Directive 89/336/EEC, 92/31/EEC, 93/68/EEC, EN 50081-1 and EN 50082-1 | |

Installation



Mechanical

The actuator should be mounted with the valve stem in either horizontal position or pointing upwards. Use the 57 mm castellated nut (supplied) to fit the actuator to the valve body. While the actuator is being fitted, a 8 mm Allen key can be used to tighten the pinch screw in the valve body ring to stop the valve turning.

Allow for necessary clearance for maintenance purposes.

Electrical

Electrical connections can be accessed by removing the cover. Two M16 x 1.5 cable entries are provided. Both entries are provided with a rubber grommet for use with flexible cable. Note that in order to maintain the enclosure IP rating, appropriate cable glands must be used.

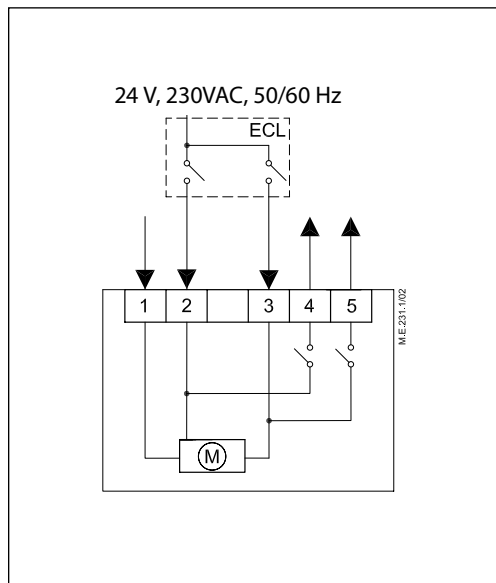
Disposal

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

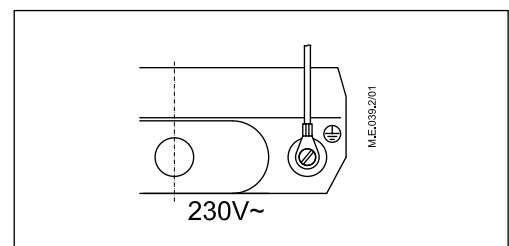
Wiring



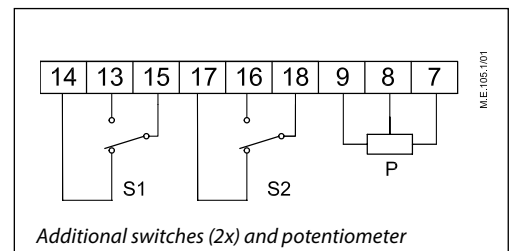
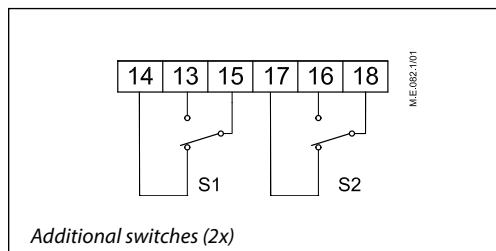
230 VAC version:
Do not touch anything on the PCB!
Do not remove the cover before the power supply is fully switched off.



| | | |
|---|-------------------|--------------------|
| 1 | 0V | Neutral |
| 2 | 24 VAC 230 VAC | Input power supply |
| 3 | | |
| 4 | 2 → 4 3 → 5 | Output |
| 5 | | |



Accessories



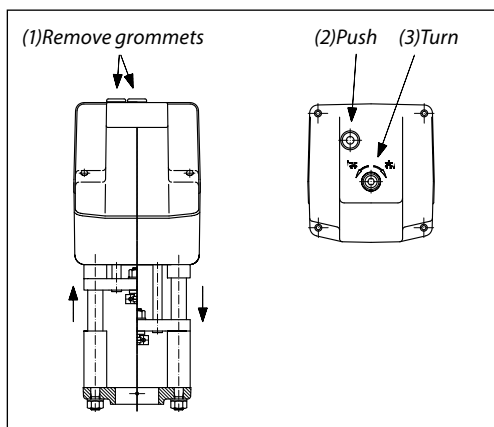
Commissioning

The following mechanical and electrical installation and the necessary checks and tests are to be completed in order to commission the unit:

- Turn on the power.
- Set the appropriate control signal and check the valve stem direction is correct for the application.

The unit is now fully commissioned.

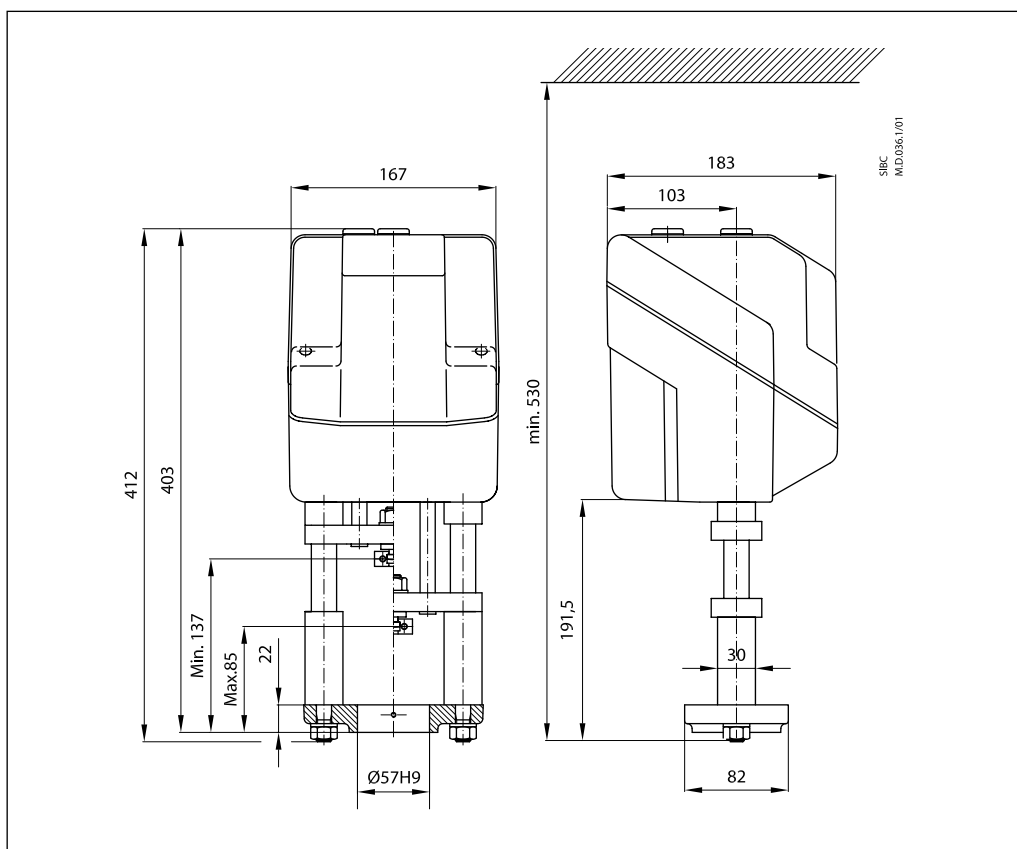
Manual override



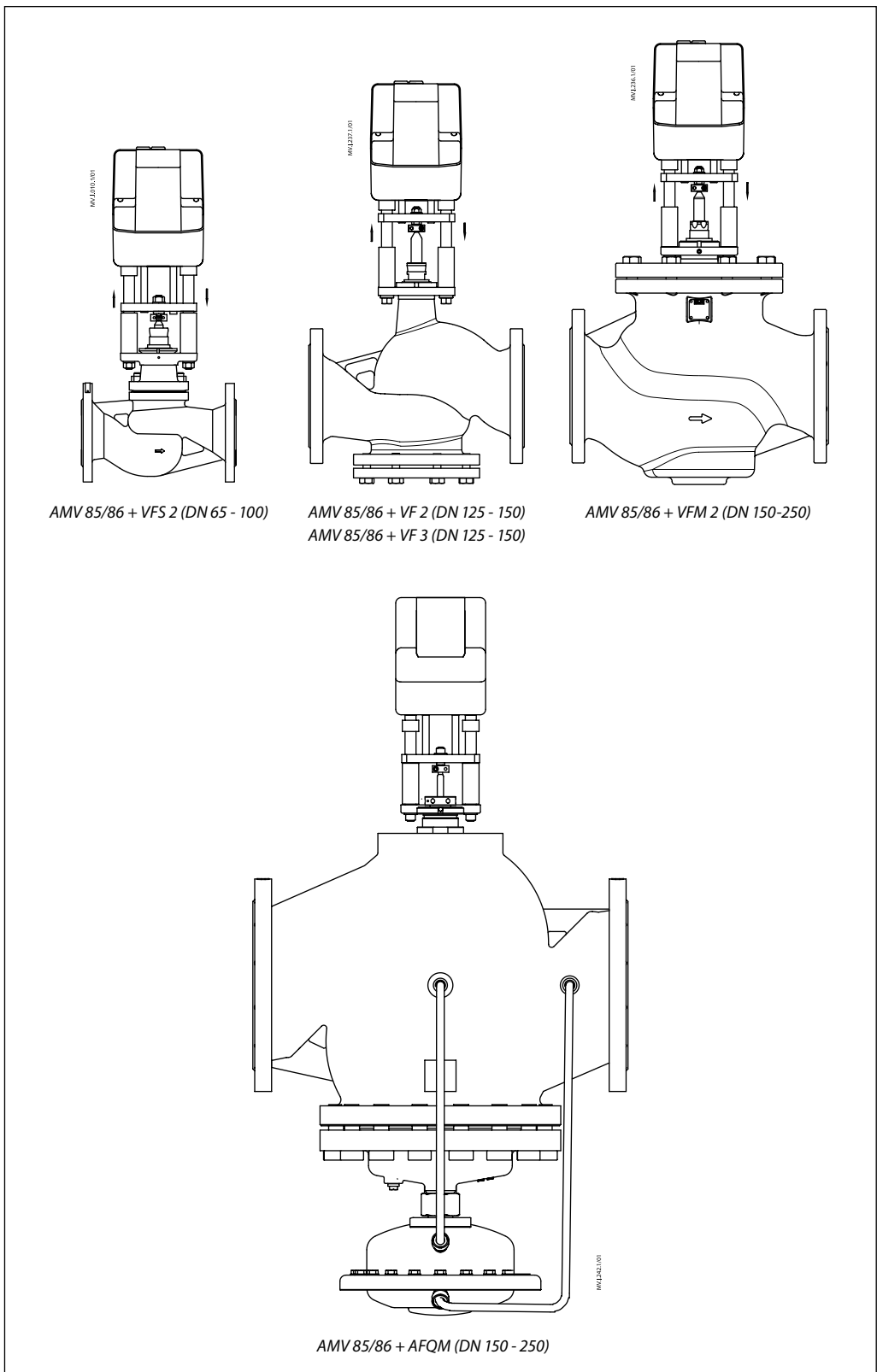
The manual override is applied by rotating the 8 mm Allen key (not supplied) to the required position. Observe the direction of the rotation symbol.

- Disconnect control signals
- Remove grommets and push the button
- Adjust valve position using an 8 mm Allen key
- Set valve to closed position
- Restore control signals

Dimensions



Actuator - valves combinations



Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without consequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.