

## 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	<b>082G1450</b>
	230		<b>082G1451</b>
AMV 86	24	3	<b>082G1460</b>
	230		<b>082G1461</b>

**Accessories**

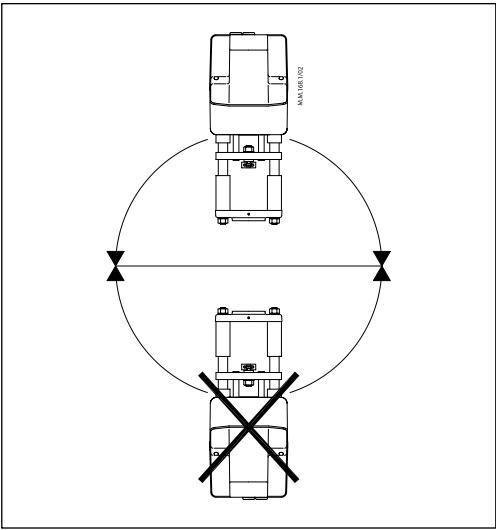
Type	for actuators	Code No.
Additional switches (2x) and potentiometer (10 kΩ)	AMV 86/3/24	<b>082H7081</b>
	AMV 86/3/230	<b>082H7080</b>
	AMV 85/8/24	<b>082H7083</b>
	AMV 85/8/230	<b>082H7082</b>
Stem heater		<b>065Z7021</b>
AM-PBU 25 - Power backup unit <sup>1)</sup>		<b>082H7090</b>

<sup>1)</sup> only for 24V version

## 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	
CI force	N	5000	
Max. stroke	mm	40	
Speed	s/mm	8	3
Max. medium temperature	°C	200	
Ambient temperature		0 ... 55	
Storage and transport temperature		-40 ... +70	
Protection Class		I (230 V); III (24 V)	
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.

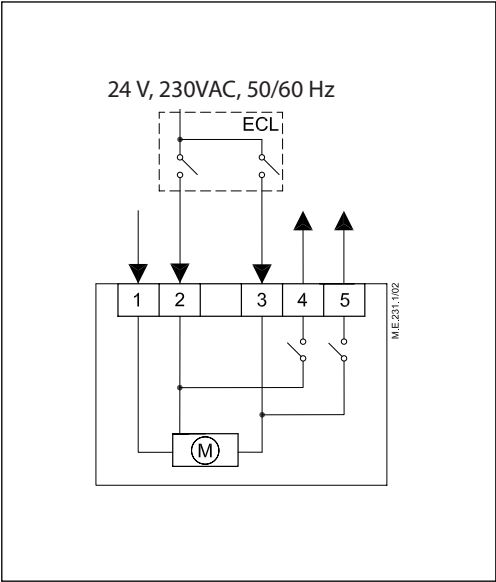
Electrical

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.

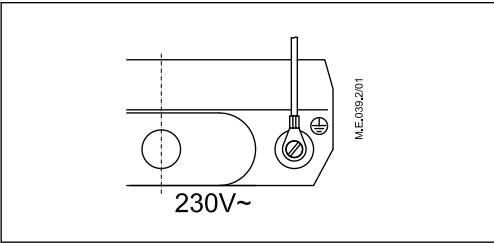
Wiring



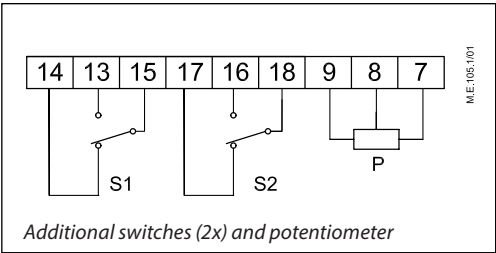
**230 VAC version:**  
Do not touch anything on the PCB!  
Do not remove the cover before the power supply is fully switched off.



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



Accessories



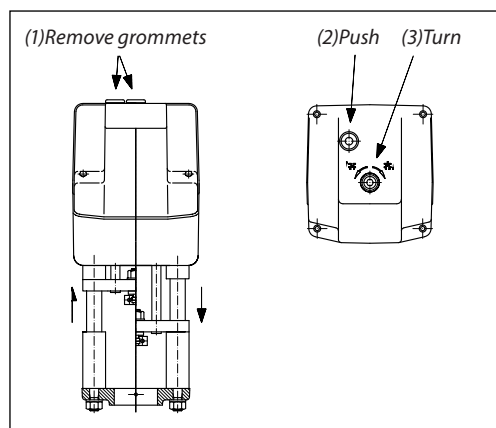
## Commissioning

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.

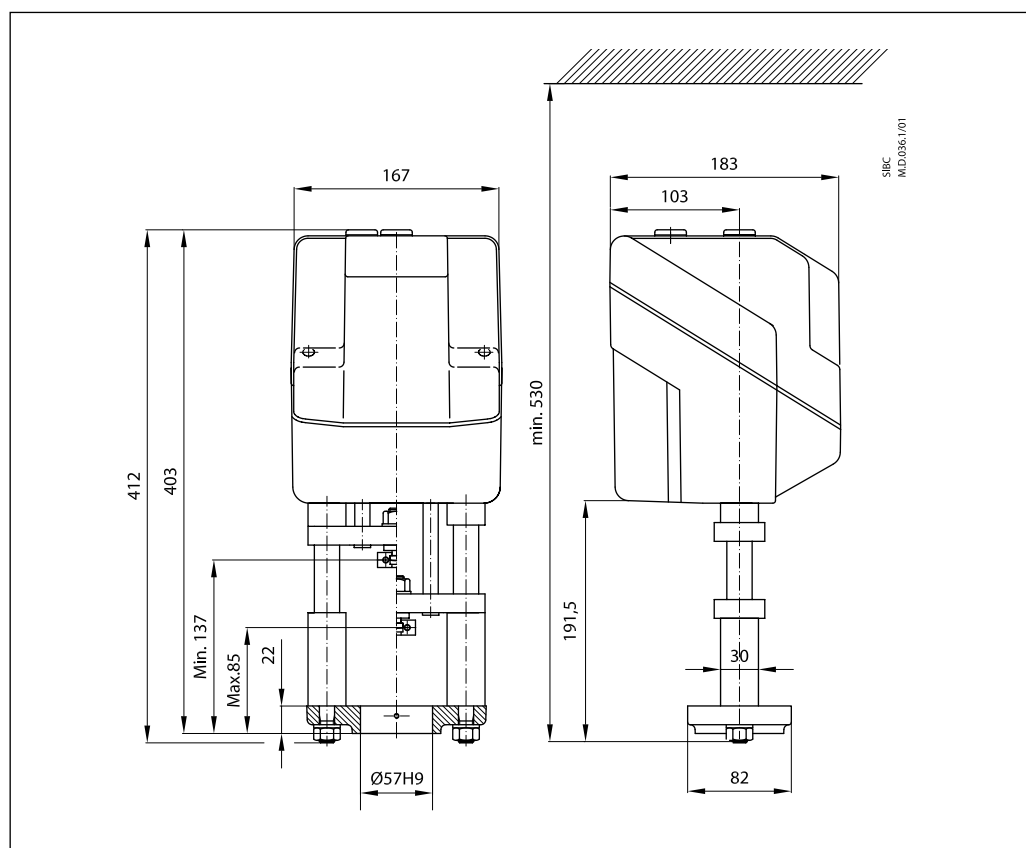
## Manual override



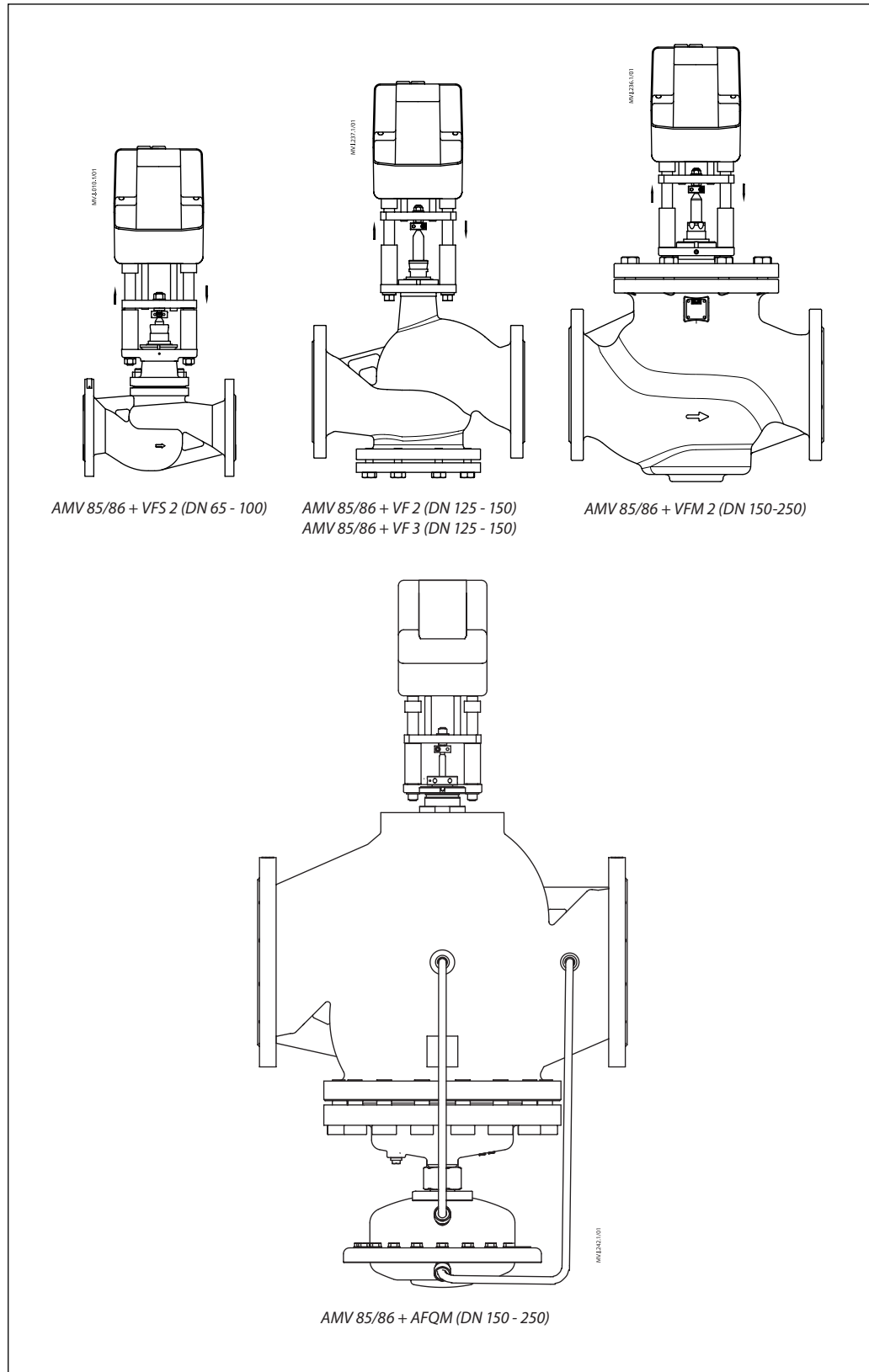
The manual override is applied by rotating the 8 mm Allen key (not supplied) to the required position. Observe the direction of the rotation symbol.

- 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



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