

Data sheet

24V, Motorized Actuators AMV 435, 3-point floating

Description



Main data:

- Supply voltage: 24 VAC/DC, 50 or 60 Hz
- Available control input signal versions:
- 3-point floating
- Stem travel: 20 mm
- Selectable stem travel speed:
- 7.5 s/mm
- 15 s/mm
- Manual operation

AMV 435 series of actuator is used with 2-way pressure independent control valve type AB-QM in sizes ranging 1½ to 4"

Features include

- No tool requirement for installation
- LED visual operation feedback
- Protection from excessive stem travel
- End position indication
- Selectable stem travel speed

Ordering

Code No.	Type	Supply Voltage	Input signal
082H0162	AMV 435	24 VAC/DC	3-point floating

Accessories

Code No.	Type	Description
065Z0315	Stem heater, 24VAC	For valve sizes 1½" to 4"
082H7090	AM-PBU25	External battery backup for safety function

Technical data

Power supply	24 VAC/DC; +10%... -15%
Power consumption	3.0 VA
Position in power failure	Fail in place
Frequency	50 Hz/60 Hz
Control input Y	3-point floating
Output signal X	Position Indication
Close off force	400 N
Max. actuator travel	20 mm
Speed	7.5 s/mm or 15 s/mm selectable
Max. medium temperature	248°F (120 °C)
Ambient temperature	32 ... 131 °F (0 ... 55 °C)
Storage and transport temperature	-40 ... 158 °F (-40 ... +70) °C
Protection class	II
Degree of protection	NEMA 2
Weight	1.0 lb (0.45 kg)
CE - marking in accordance with standards	Low Voltage Directive (LVD) 2006/95/EC: EN 60730-1, EN 60730-2-14 EMC Directive 2004/108/EC: EN 61000-6-2, EN 61000-6-3

Disposal

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

Installation

The actuator must not be installed in an explosive environment or in ambient temperatures lower than 32 °F (0 °C) or at ambient temperature higher than 131 °F (55 °C). The actuator must not be subject to steam jets, water jets or dripping liquid as well.

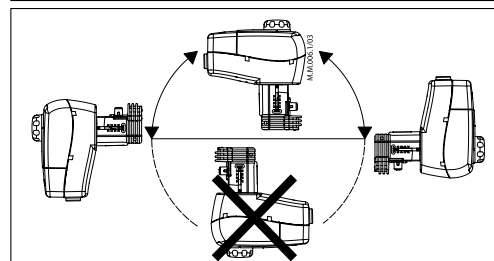
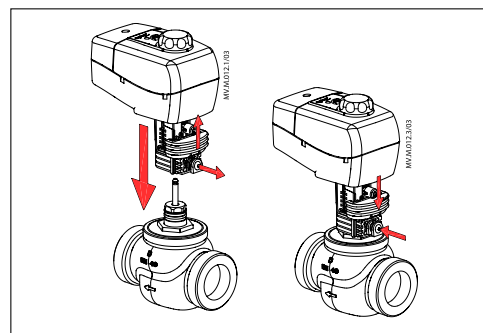
Mounting

No tool is required to mount the actuator to the valve. The mounting mechanism is integrated into the design of the actuator.

Orientation

Installation of the valve with the actuator is allowed in a horizontal or pointing in an upwards position. The installation of the actuator pointing down is not allowed.

The actuator may be rotated 360° with respect to the valve's mounting base stem by loosening the mounting mechanism. Once properly rotated, re-engage the mounting mechanism.



Commissioning

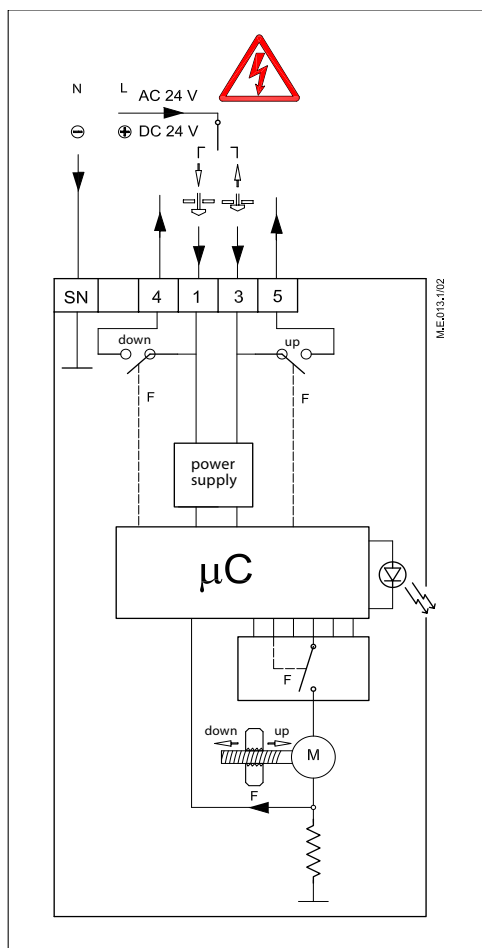
Complete the mechanical and electrical installation and perform the necessary checks and tests:

- Apply power
- Apply the appropriate control signal and check that the valve stem direction is correct for the application.

The unit is now fully commissioned.

Wiring

AMV 435, 3-point floating input signal



Terminals 1, 3:

Control voltage input from the controller. Power supply 24 VAC/DC, 230 VAC (dependent on type)



Note:

Powered terminal 1 closes the AB-QM valve; powered terminal 3 opens the valve.

Terminals 4, 5:

Output used for position indication or monitoring

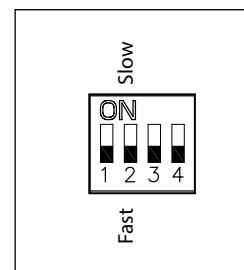
N

Neutral/Common (0 V)

DIP switch setting for AMV 435 actuator

DIP switches

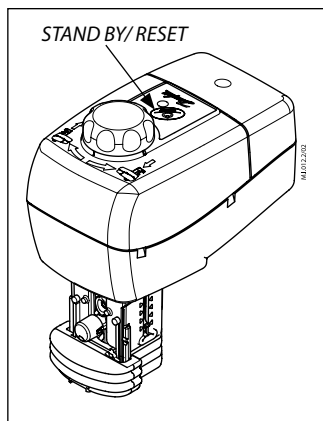
- **SW 1:** Not used
- **SW 2:** Actuator speed selection - 7.5 s/mm or 15 s/mm
- **SW 3:** Not used
- **SW 4:** Not used



**Led signalling/
Actuator operating modes**

LED function indicator

The bi-colour (green/red) LED function indicator is located on the actuator cover. Based upon the LED color and reaction, this visual feedback provides indication on the operation of the actuator.



AMV 435

	Flashing LED	Constant LED
RED	Actuator is raising the stem	Stem fully raised
GREEN	Actuator is closing the stem	Stem fully closed

STAND BY/ RESET button

Located next to the LED indicator the STAND BY/RESET button when pressed holds its last position and does not react to any control signal.

Pressing the button once (Flashing RED LED)

In this mode the actuator can be in manual operation. Pressing the button again returns the actuator to normal mode.

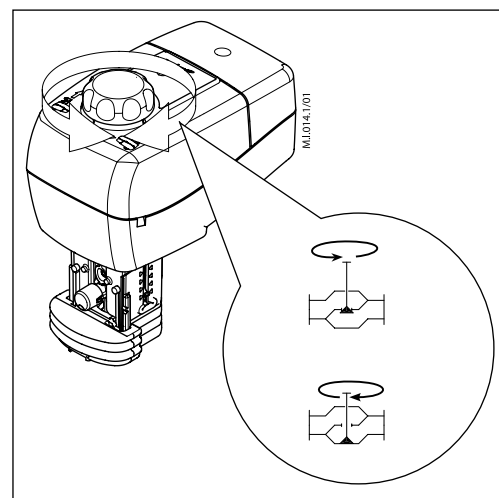
Manual override

Manual override is done by means of the control knob on top of actuator housing:

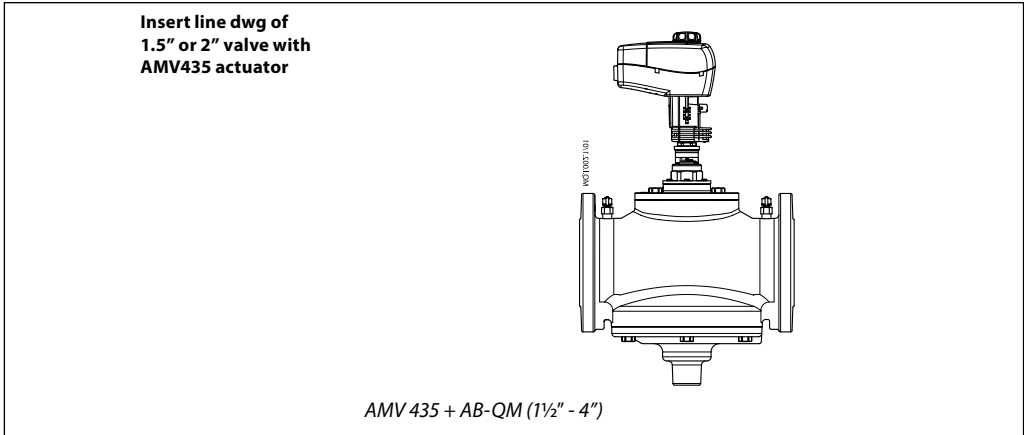
- Disconnect power supply or press STAND BY/ RESET button
- Adjust valve position using the control knob (observe the rotation direction)

After manual override is completed:

- Restore power supply or press STAND BY/RESET button again



Actuator - valve Assembly



Dimensions

