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

Description

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

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

Ordering

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Supply Voltage</th>
<th>Input signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>082H0162</td>
<td>AMV 435</td>
<td>24 VAC/DC</td>
<td>3-point floating</td>
</tr>
</tbody>
</table>

Accessories

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>065Z0315</td>
<td>Stem heater, 24VAC</td>
<td>For valve sizes 1½” to 4”</td>
</tr>
<tr>
<td>082H7090</td>
<td>AM-PBU25</td>
<td>External battery backup for safety function</td>
</tr>
</tbody>
</table>
Data sheet  AMV 435 series motorized actuator

Technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>24 VAC/DC; +10%...-15%</td>
</tr>
<tr>
<td>Power consumption</td>
<td>3.0 VA</td>
</tr>
<tr>
<td>Position in power failure</td>
<td>Fail in place</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz/60 Hz</td>
</tr>
<tr>
<td>Control input Y</td>
<td>3-point floating</td>
</tr>
<tr>
<td>Output signal X</td>
<td>Position Indication</td>
</tr>
<tr>
<td>Close off force</td>
<td>400 N</td>
</tr>
<tr>
<td>Max. actuator travel</td>
<td>20 mm</td>
</tr>
<tr>
<td>Speed</td>
<td>7.5 s/mm or 15 s/mm selectable</td>
</tr>
<tr>
<td>Max. medium temperature</td>
<td>248°F (120 °C)</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>32 ... 131 °F (0 ... 55 °C)</td>
</tr>
<tr>
<td>Storage and transport temperature</td>
<td>-40 ... 158 °F (-40 ... +70 °C)</td>
</tr>
<tr>
<td>Protection class</td>
<td>II</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>NEMA 2</td>
</tr>
<tr>
<td>Weight</td>
<td>1.0 lb (0.45 kg)</td>
</tr>
</tbody>
</table>

- 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)

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### 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
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

Insert line dwg of 1.5" or 2" valve with AMV435 actuator

AMV 435 + AB-QM (1½" - 4")

Dimensions

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