



Model AB-QM Pressure Independent Balancing and Control Valve

Actuator Submittal, Modulating AME 435QM

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PROJECT	ARCHITECT/ENGINEER	APPROVALS			
		AGENCY	REPRESENTATIVE	DATE	NOTES
SUPPLIER	CONTRACTOR	ARCHITECT			
		ENGINEER			
ORDER NO.		CONTRACTOR 1			
		CONTRACTOR 2			
		(OTHER)			
		NOTE	COMMENT		



Description

AME 435QM actuator is specifically used with the AB-QM 2-way valve bodies in sizes ranging from 1½" to 4". This actuator receives a modulating input signal and can provide an output signal for feedback. Other features of the AME 435QM include:

- No tool requirement for installation
- LED visual operation feedback
- Selectable stem travel speed
- Selectable linear or equal percentage actuator characteristic
- Adjustment of actuator characteristic under equal percentage
- Automatic stem travel calibration

Model	Number	Unit Tag	Qty
AME 435QM			

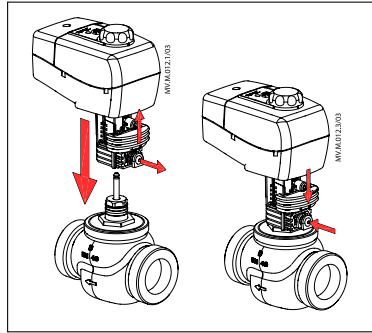
Code No.	082H0171
Power supply	24 VAC/DC; +10%...15%
Power consumption	4.5 VA
Frequency	50 Hz/60 Hz
Control input Y	0-10 V (2-10 V) Ri = 95 kΩ 0-20 mA (4-20 mA) Ri = 500 Ω
Output signal X	0-10V (2-10V) RL = 650 Ω (maximal load)
Close of force	400 N
Max. actuator travel	20 mm
Speed	7.5 s/mm or 15 s/mm selectable
Max. medium temperature	248°F (120 °C)
Ambient temperature	32 ... 131 °F (0 ... 55 °C)
Degree of protection	IP 54, NEMA 2
Weight	1.0 lb (0.45 kg)
- 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

Specification

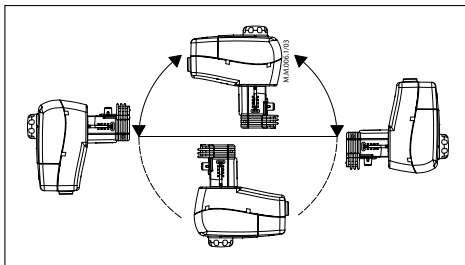
The motorized actuator shall be 24VAC/DC powered and mount directly to the AB-QM valve body. The actuator shall mount to the valve through an integrated mechanism that does not require any tools. The actuator shall be capable of calibrating its travel to the required stem travel of the valve. The operation of the actuator shall be determined based upon DIP switches located beneath the cover of the actuator that provides the options of actuator speed, signal input, direction, and actuator characteristic. The actuator shall also have the option of valve flow adjustment if the equal percentage characteristic is selected. The motorized actuator shall have a visible LED feedback to provide operation information and a manual knob for override adjustment of the actuator.

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.

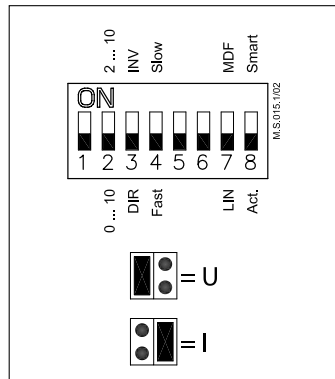
The actuator may be rotated 360° with respect to the valve's mounting base stem by loosening the mounting mechanism. Once properly rotated, re-engage the mounting mechanism.

Jumper

- **U/I** - Voltage or Current input signal selection

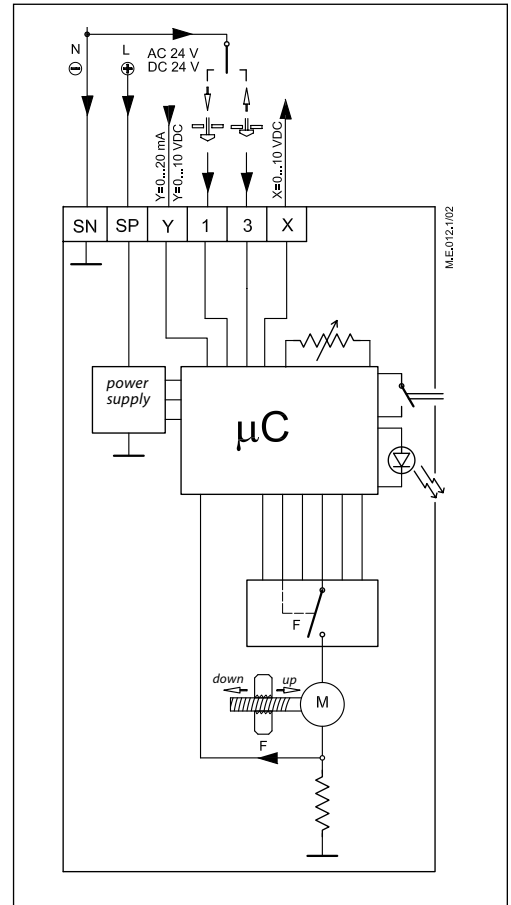
DIP switches

- **SW 1:** Not used
- **SW 2:** Input signal range selector
 - 0-10 V / 2-10 V
 - 0-20 mA / 4-20 mA
- **SW 3:** Direct or Inverse reaction
 - Valve opens as input signal increases
 - Valve closes as input signal increases
- **SW 4:** Actuator speed selection
 - 7.5 s/mm or 15 s/mm
- **SW 5:** Not used



- **SW 6:** Not used
- **SW 7:** Actuator characteristic
 - Linear or equal-percentage
- **SW 8:** Smart function selector
 - Compensates fluctuations to the input signal to maintain a more consistent control signal to the actuator

Wiring



- SP** 24 VAC/DC Power supply
- SN** Neutral Common
- Y** 0-10 V Input signal (2-10 V) 0-20 mA (4-20 mA)
- X** 0-10 V Output signal (2-10 V)
- 1, 3** Override input signal (can not be used for 3-point control)

Dimensions

