BAM04
BALL VALVE ACTUATOR

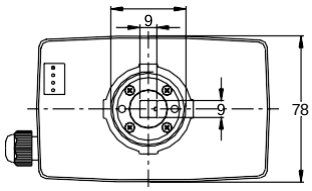
MATE

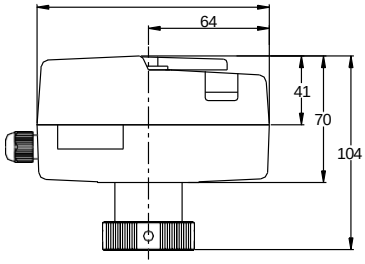
Description

BAM04 series ball valve actuator is using bi-directional motor. Matching with BVM series ball valve, it is mainly used in central air-conditioning system, heating system, water treatment, and production industry to control the flow of chilled/hot medium.

Characteristic

- Bi-directional AC motor
- Apply to valves of DN32 to DN50 (can be also apply to valves of DN15-25 as per request)
- Fire-retardant ABS engineering plastic, measure up UL94V-0 standard
- With manual switch and position indicator
- Floating type or modulating type (with internal PCB)
- Detachable design, easy to install and maintain
- Fluid temperature and ambient temperature are hard to reach inside of actuator.
- High reliable and safety requirement level
- Actuator manual handle can be disassembled to install on the valve stem for opening or close the valve.
- 0(2)~10V dc or 0(4)~20mA dc control input signal, proportional control.
- 0~10V feedback signal.
- With LED open degree display for option





Model Selection

BAM04 – XXX X X

Product Code
Ball Valve Actuator

Series
04–The Fourth Series

Voltage

024-24VAC	110-110VAC
120-120VAC	220-220VAC
230-230VAC	240-240VAC

Additional Code
U - 24VAC/DC AC / DC universal voltage input
S2 - With 2 Position Feedback Auxiliary Switches

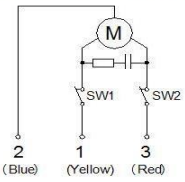
Control Mode
F(blank)- 3-point floating control or 3-wires on/off control
E - Modulating Control(Only for 24V)
D - Modulating Control, with LED display
(Only for BAM04-024D)

Specification

MODEL		BAM04- 024	BAM04- 110	BAM04- 120	BAM04- 220	BAM04- 230	BAM04- 240	BAM04- 024E	BAM04- 024D
POWER SUPPLY		24VAC	110VAC	120VAC	220VAC	230VAC	240VAC	24VAC	24VAC
POWER CONSUMPTION		3VA	5VA					4VA	4.5VA
OPEN DEGREE DISPLAY		——						——	LED
CONTROL SIGNAL		On/Off or 3 point floating signal						0(2)~10VDC (input impedance:200KΩ) or 4~20mA DC (input impedance: 500Ω)	
FEEDBACK SIGNAL		——						0~10V DC (1mA)	
DEFAULT SETTING		——						Input signal: 0~10V DC Mode: DA	
CURRENT FREQUENCY		50/60Hz							
TORQUE		≥5Nm							
OPERATION TIME		≈1min(50Hz/90°)							
MAX ANGLE		90° < limiter ≤95°							
ANXILIARY SWITCH		125 ~ 250VAC,3A							
CONNECTING WIRES		0.5 ~ 1mm²							
MATERIAL	COVER	Fireproof ABS engineering plastic							
	CHASSIS	Fireproof Reinforced nylon PA6-110							
	GEAR	POM (polyoxymethylene) + Brass HPb59-1 + iron-base powder metallurgy							
TEMP. LIMIT		Operation: -5 ~ +50℃; Storage: - 30 ~ +70℃							
IP CLASS		IP54							

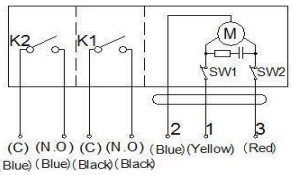
Wiring

A.On/Off or Floating Signal



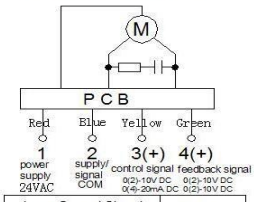
Power Supply	Rotate To
1-2	0°
2-3	90°

B.On/Off or Floating Signal with Feedback



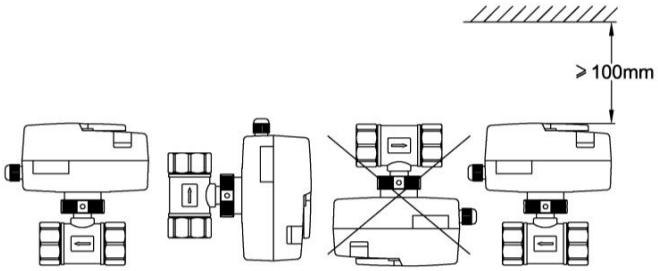
Power Supply	Rotate To	Passive dry contact switch	
		K1	K2
1-2	0°	On	Off
2-3	90°	Off	On

C.Modulating Type

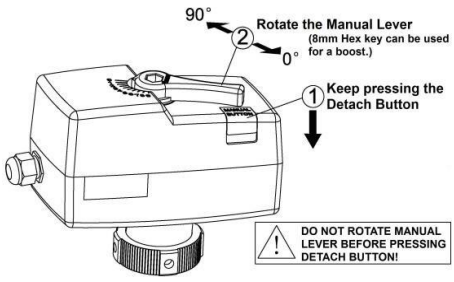


Input Control Signal		Rotate To
DA	RA	
Increase	Decrease	90°
Decrease	Increase	0°

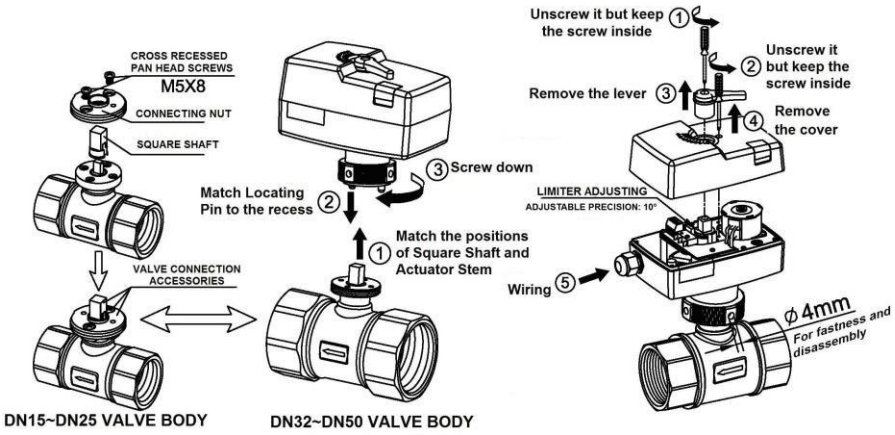
Installation Instruction



Manual Switch



Actuator Installation

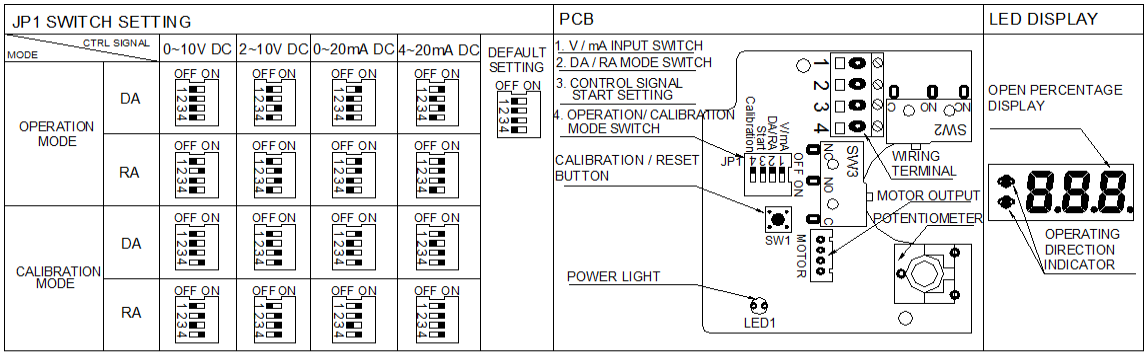


PCB Setting

1. Calibration mode: After power is on, set JP1 switch “4” to position “ON” as request (refer to the below diagram) , then press SW1 calibration/reset button, power LED is flashing during calibration, and the actuator stem is rotating till to the end (has reached the end position of ball valves). Afterward the stem will rotate back to initial position. Power LED will stop flashing after the calibration mode is over. MCU will keep the position data in memory even power is off. Then JP1 switch “4” is needed to set to “OFF” after calibration is finished and back to operation mode. If this JP1 switch”4” is forgotten to set to “OFF” during operation, the actuator will operate as usual, but it will go through the calibration mode every time when power is on.

2. Operation mode: When power is on, the actuator will work according to the control signal.

3. Calibration/operation mode shift: If user needs to switch calibration/operation mode, make sure the JP1 has been set correctly, then press SW1 calibration/reset button. Don’t need to cut off power.



Note: It is strongly recommended that JP1switch should be set on operation mode in normal use