

CONTROL BUTTERFLY VALVE

INSTRUCTION MANUAL

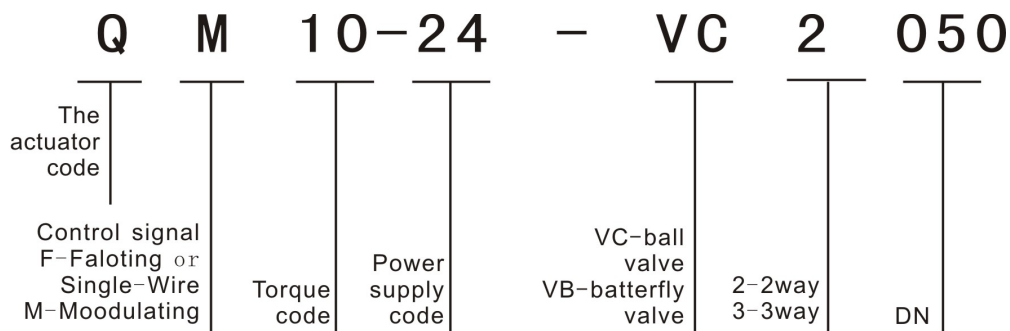


The Actuated Butterfly Valves are suitable for heating and cooling applications. They can also be employed for industrial applications, general services and water treatment. The VB series is equipped with standard On/Off or modulating (4~20mA/0-10V,) control quarter-turn electric actuator.

FEATURES

1. Cast Iron or nodular cast iron Wafer Body
2. Centric butterfly valve with elastomer liner
3. Manual override non-clutch design. Manual operation can be operated without any lever, clutch or brake upon power voltage.
4. Mechanical Stops External Adjustable Limit stops
5. Stall Protection Built-in thermal protection
6. Low power consumption
7. Position feedback
8. Direct/reverse acting
9. 4-20mA/0-10V/2-10V choice
10. Maintenance free
11. Quick and easy installation
12. Accurate valve positioning
13. Indicator Continuous Position Indicator
14. Manual Override Non-clutch design
15. Gear Permanently lubricated and self locking

MODEL NUMBER DESCRIPTIONS



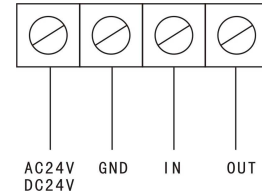
TECHNICAL DATA

VALVE	
Flow media	Cold and hot water, water with max. 50% volume of glycol
Temperature of medium	-10°C.. +100°C
Rated pressure	1600 / 2760kPa
Leakage rate	Air bubble-tight (Bo 1, DIN 3230)
Size	DN40-DN125
Material	Body Cast Iron or nodular cast iron ,Shaft Stainless Steel,
	Disc Ductile Iron with epoxy coating
	Liner EPDM
Actuator	
Actuator	QF/QM
Output torque	10, 16, 25, 40N.m
Power supply	AC220V or AC/DC24V
Run time	about 120S
Operating power	5VA
Output angle	90°± 3°
ON/OFF control signal	1 wire or 2 wire control
Control signal	4~20mA, 1~5V, or 0(2)~10V
Feedback signal	DC0 -10V
Installation position	Upright to horizontal (No upset)
Protection class	IP54
Ambient conditions	ZERO 10°C.. +55°C 0..90% RH
Weight	1.5...2.8kg
Material	Flame-resistant Abs

DN	Torque(N.m)	Weight(KG)	Running time(S)	Power(w)	ON/OFF	MODULATING
DN40	16	1	120	5	QF16	QM16
DN50	16	1	120	5	QF16	QM16
DN65	16	1	120	5	QF16	QM16
DN80	16	1	120	5	QF16	QM16
DN100	25	1	120	5	QF25	QM25
DN125	40	1	120	5	QF40	QM40

WIRING DIAGRAMS

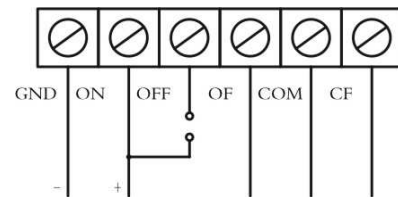
QM



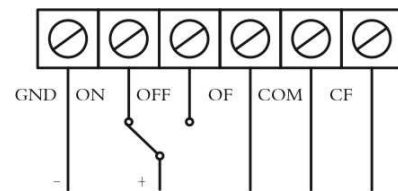
IN: 0-10V / 4-20mA Control signal

OUT: 0-10V Feedback signal

QF



ON/OFF control

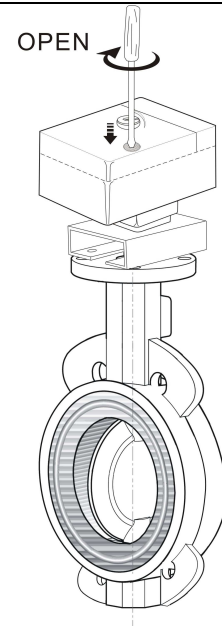
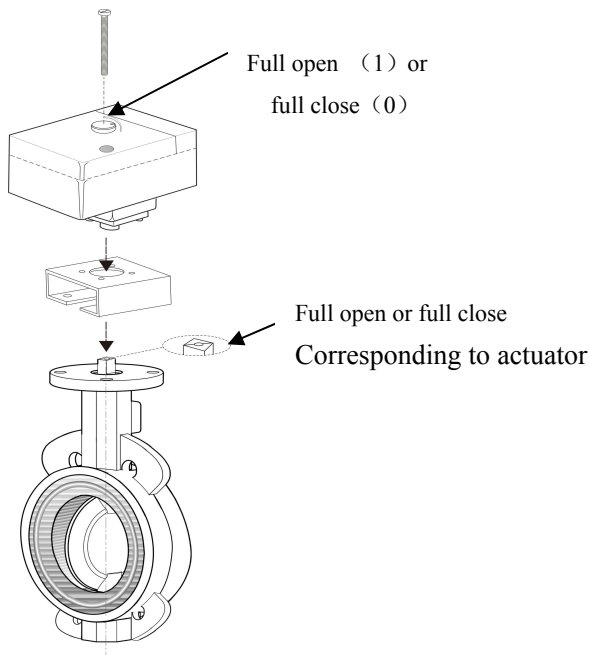


Floating-point control

POWER: 24V ADC/220VAC

WARNING

1. Installation are for use by qualified personnel only. To avoid injury and electric shock, do not perform any servicing other than that contained in this manual.
2. All actuators are shipped from the factory already for installation; no electrical adjustments are required before placing them in operation.
3. Check the connections before energizing the power supply since wrong connections can damage the equipment.
4. The actuator should be stored in its shipping carton in a clean, dry area.



Note:

Opening/closing the valve can be judged by the line on the valve stem. When the valve opened, the line is parallel with flow direction.

Operate the valve manually to fully open or fully closed position before the actuator is mounted.

Operate the actuator and valve stem to fully open or fully closed position.

Check that the actuator and valve stem are in correct position. Please note, valve and actuator must be in the same mode (fully open/fully closed) prior to the assembly.

Mount the actuator on the valve and check that the actuator and valve stems are centered and aligned.

OPERATION

The internal force sensor will turn off the actuator when the valve is locked accidentally during running, so the motor of the actuator will never overload.

Manual operation

The QM/QF are equipped with a manual operator knob to open or close valves in the events of power failure.

Push down the manual operator knob and turn the knob:

- A: counterclockwise to drive the valve close
- B: clockwise to drive the valve open

Direction of action

Repositioning the selector plug S3 can change the direction of action.

S3 ON 10V/20 mA OFF 0V

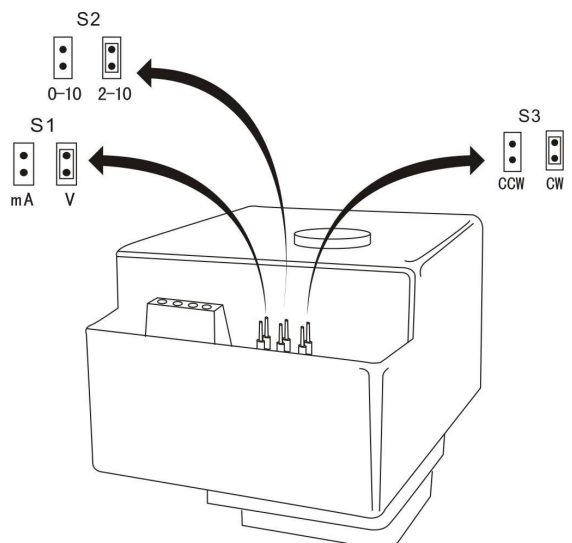
Control signal

The control signal Vdc/mA can be changed by selector plug S1.

The control signal 0-10V/2-10V can be changed by selector plug S2

S1 ON 0-20mA/OFF 0-10V

S2 ON 2-10V/OFF 0-10V OR ON 4-20mA/OFF 0-20 mA



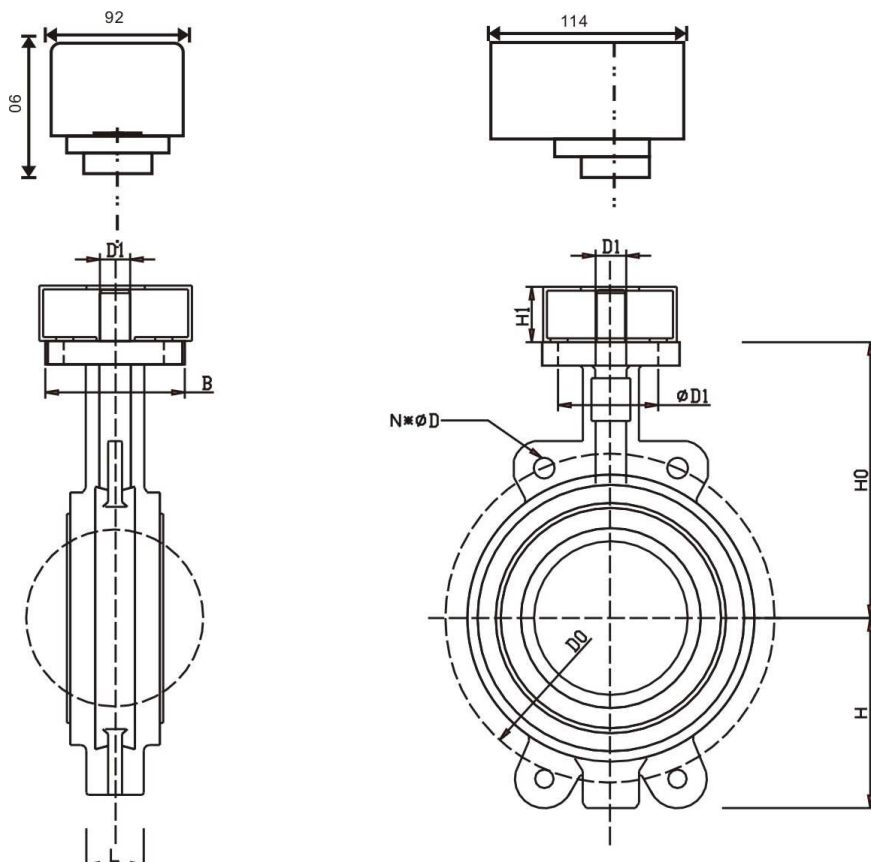
Note:

Turn the power off before changing the following setting.

CH-BA

INSTALLATION DIMENSIONS (PN16)

DN	L	H	H0	B	D0	∅D	D1	H1	∅D1
40	33	65	146	90	110	4*18	10	33	70
50	43	80	151	90	125	4*18	10	33	70
65	46	92	175	90	145	4*18	10	33	70
80	46	95	181	90	160	4*18	10	33	70
100	52	114	200	90	180	4*18	10	35	70
125	56	127	213	90	210	4*18	10	35	70



ORDER EXAMPLE

1. Order valve DN80, 24V 2 WAY ON/OFF control butterfly valve
Type: QF16-24-VB2080
2. Order valve DN80 butterfly valve only
Type: VB2080
3. Order DN80, 24V ON/OFF actuator only
Type: QF16-24-VB