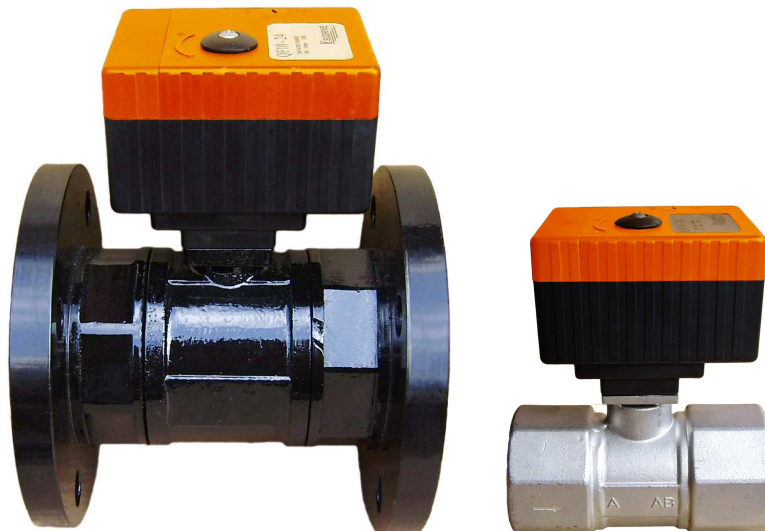


APPLICATION

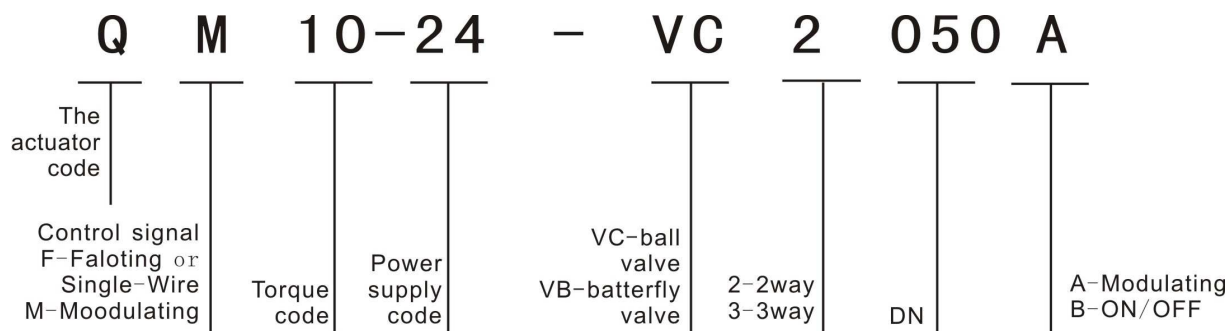
The QM/QF series of electric valve actuators are used in heating, ventilation, and air-conditioning (HVAC) applications. The QM series of electric valve actuators are modulating control actuators used with controls that provide an analog output of 0 to 10Vdc, 2 to 10Vdc or 4-20mA. The internal selector plug can be used to reverse the direction of action. The QF series of electric valve actuators are controlled by an on/off output.



FEATURES

- Low power consumption
- Position feedback by signal
- Direct/reverse acting
- 4-20mA/0-10V/2-10V choice
- Maintenance free
- Quick and easy installation
- No separate linkage required
- Accurate valve positioning
- Indicator Continuous Position Indicator
- Manual Override Non-clutch design
- Gear Permanently lubricated and self locking
- Stall Protection Built-in thermal protection

MODEL NUMBER DESCRIPTIONS



WARNING

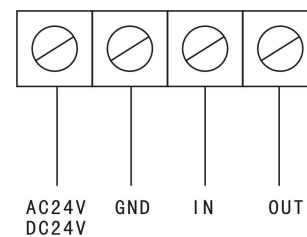
1. Only for professional installation. To avoid injury and electric shock, do not perform any servicing other than that contained in this manual.
2. All actuators have been installed before shipped from the factory; no electrical adjustments are required before placing them in operation.
3. Check the connections before energizing the power supply because wrong connections can damage the equipment.
4. The actuator should be stored in a clean and dry shipping carton.

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)
Closing pressure	1000kPa
Size	DN25-DN100
Material	Body Cast copper or Stainless Steel ,Shaft Stainless Steel,
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	- 10°C. to. +55°C 0..90% RH
Weight	1kg
Material	Flame-resistant Abs

WIRING DIAGRAMS

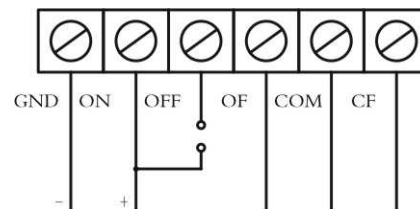
QM



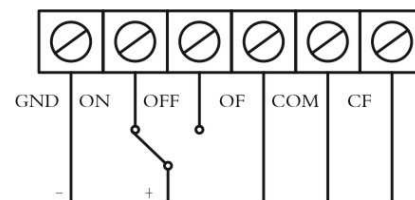
IN: 0-10V / 4-20mA Control signal

OUT: 0-10V Feedback signal

QF



ON/OFF control



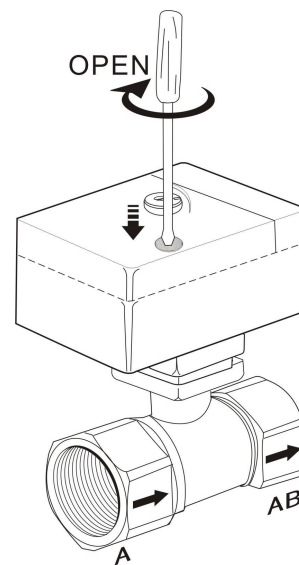
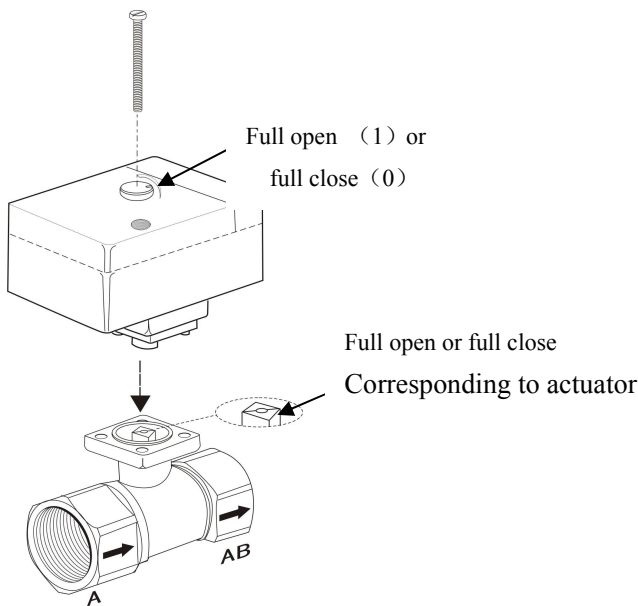
Floating-point control

POWER: 24V ADC/220VAC

24VAC/DC: Connect via safety isolating
 220VAC: To isolate from the main power supply, the system must incorporate the device which disconnects the phase conductors

INSTALLATION

B: clockwise to drive the valve open



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

Direction of action

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

S3 ON 10V/20 mA OFF 0V

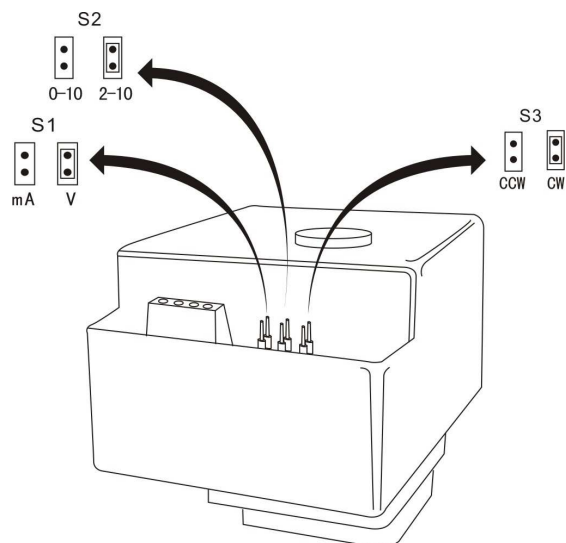
Control signal

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

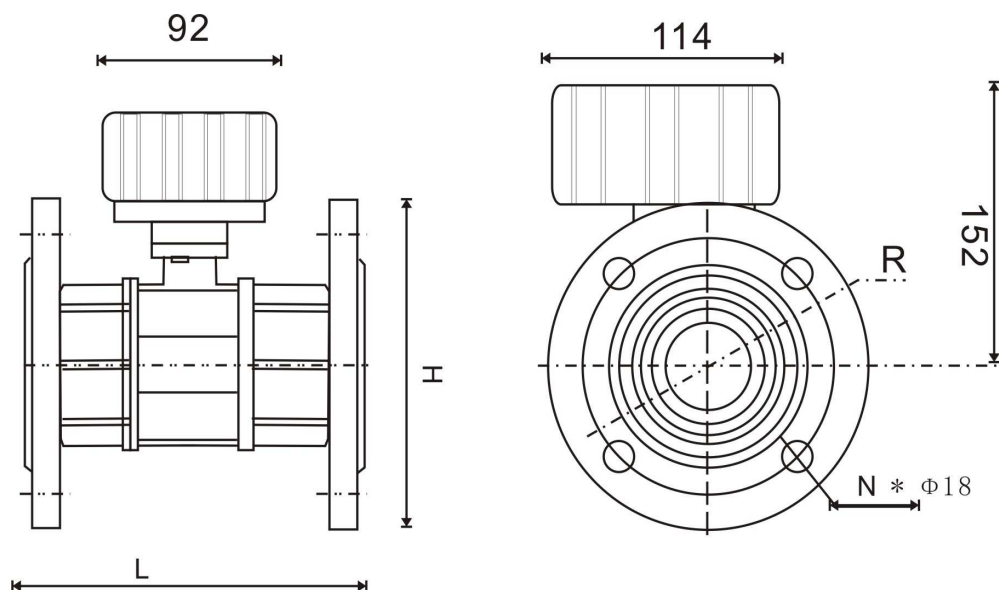
S2 ON 2-10V/OFF 0-10V OR ON 4-20mA/OFF 0-20 mA



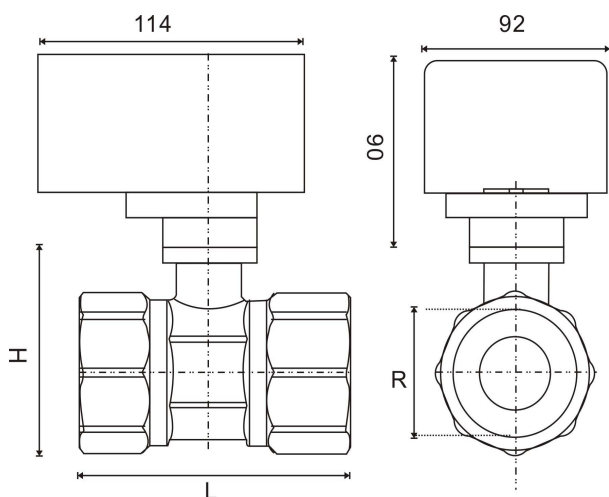
Note:

Turn the power off before changing the following setting.

DIMENSIONS



DN mm	Dimensions(mm)		R	N	Kvs	
	L	H			ON/OFF	MODULATING
65	185	185	120	4	119	95
80	200	200	135	8	140	110
100	215	215	150	8	175	140



ORDER EXAMPLE

The customer can order valve or actuator dividually. When order the actuator only , the customer should write the order form with detailed electric parameter.

1:Order valve DN50 , 24V 3 WAY control ball valve

Type: QF10-24-VC2050

2:Order DN50 ball valve only

Type: VC2050

3:Order DN50, 24V actuator only

Type:QF10-24-VC

DN mm	Dimensions(mm)			Thread R	Kvs	
	Lmp.	L	H		ON/OFF	MODULATING
25	1	80	70	1	25	16
32	1-1/4	100	70	1-1/4	32	18
40	1-1/2	110	85	1-1/2	40	25
50	2	120	90	2	50	40