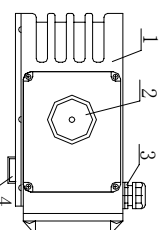
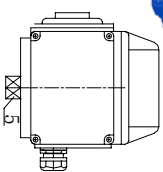
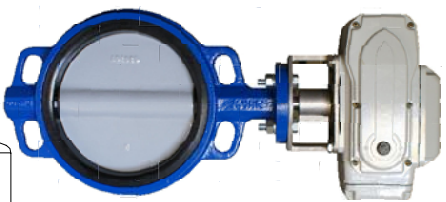


## BV 系列

### 阀门电动执行器使用说明书

#### 1. 产品介绍

BV 系列阀门电动执行器广泛应用于多种工业领域：石油、化工、电力、冶炼、能源、建材、制剂、造纸、水处理、食品加工、船舶及楼宇自动化系统工程等。该产品体积小、重量轻、外观美观大方，整机结构紧凑、配套简单，免加油、免点检、防水防锈、任意角度安装。可适用多种电源（24VAC、110VAC、220VAC、380VAC、24VDC、220VDC），5 秒、15 秒、30 秒、60 秒多种输出时间，可满足于多种不同口径阀门在不同工况的需求。智能型阀门电动执行器：数字设定、数字整定、一机多能；采用现今的数字技术、控制模块高度集成于执行器中，机电一体化设计、无需外接定位器，可直接接收计算机或仪表输出的 4 mA ~ 20mAADC 标准信号，实现阀门电动执行器的智能控制 and 精确定位。

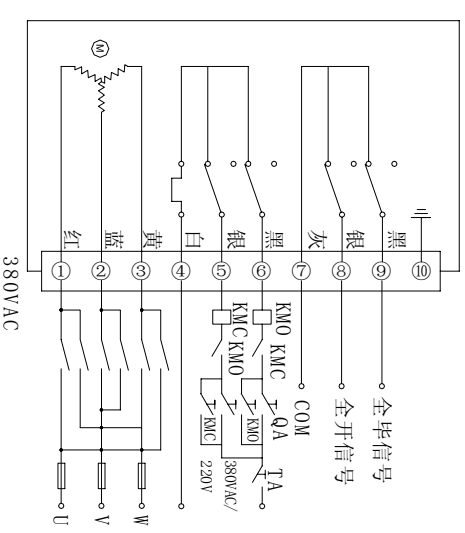
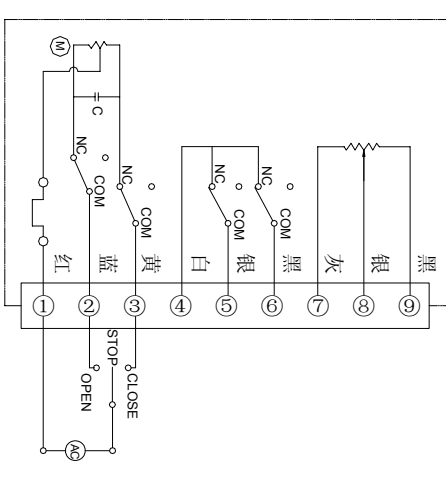
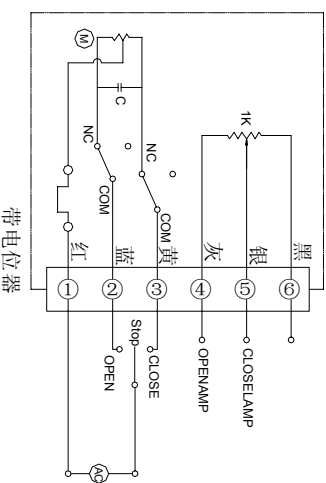
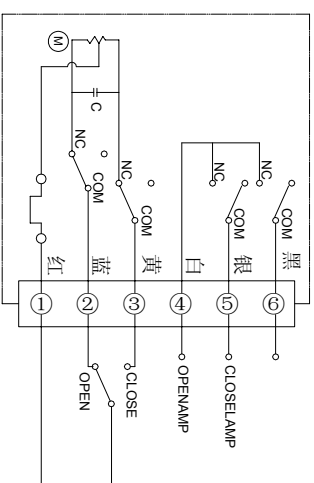
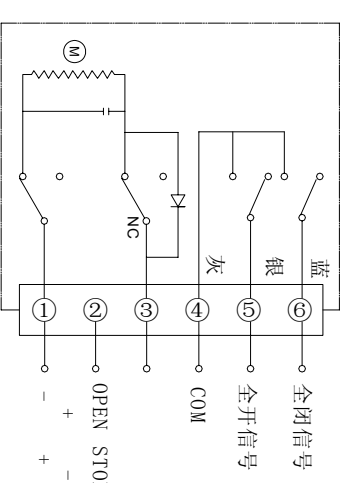
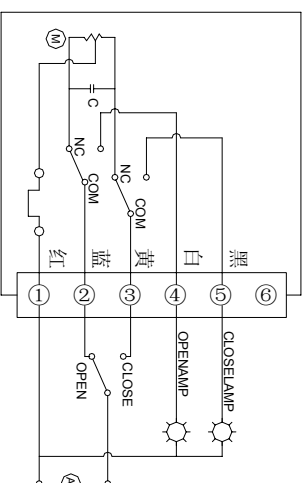


1. 箱体、2. 开度式、3. 进线线锁、4. 防水橡胶塞、5. 输出轴、6. 减速盖、7. 电气盖、8. 接线盖、9. 手柄轴孔

#### 2. 回转型阀门电动执行器特性参数表

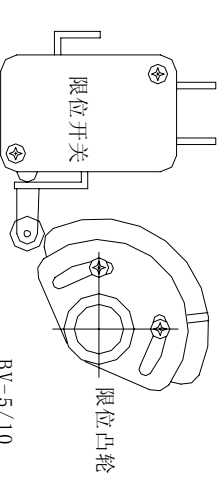
| 型号    | BV-5                                         | BV-5N                                        | BV-10                                        | BV-10N                                       | BV-20                                        | BV-20N                                       | BV-50                                        | BV-50N                                       | BV-100                                       | BV-100N                                      | BV-200                                       | BV-200N                                      |
|-------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| 电源    | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC |
| 力矩    | 50N·M                                        | 100N·M                                       | 250N·M                                       | 500N·M                                       | 1000N·M                                      | 2000N·M                                      |                                              |                                              |                                              |                                              |                                              |                                              |
| 时间 /s | 5、10、15、20、60                                | 5、10、15、30、60                                | 360                                          | 100                                          |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 电机    | 15W                                          | 25W                                          | 50W                                          | 90W                                          | 110W                                         | 110W                                         |                                              |                                              |                                              |                                              |                                              |                                              |
| 保护    | 热保护                                          |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 转动角度  | 90°                                          |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 环境温度  | -10℃~+60℃                                    |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 耐压值   | 1500V                                        |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 重量    | 2.5Kg                                        | 2.8Kg                                        | 4Kg                                          | 4.5Kg                                        | 7Kg                                          | 7.5Kg                                        | 7.8Kg                                        | 12Kg                                         | 12Kg                                         | 12.5Kg                                       | 12.8Kg                                       |                                              |
| 防水性   | IP-67                                        |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 限位    | 电气机械                                         |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 箱体材料  | 铝合金                                          |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 手动操作  | 附带手柄                                         |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 输入信号  | 4mA~20mA                                     |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |
| 输出信号  | 4mA~20mA                                     |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |                                              |

#### 3. 电路图

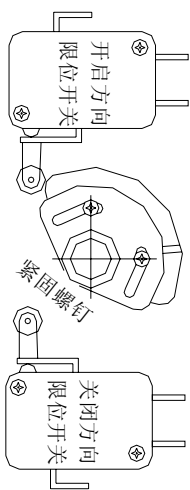


#### 4. 开关角度的调整

- (1). 电气限位的调整  
松开行程挡块的螺钉，用螺丝刀轻敲行程挡块，即可调整行程挡块的角度，从而改变电气限位的开闭角度。最后，切实紧固好行程挡块的螺钉。

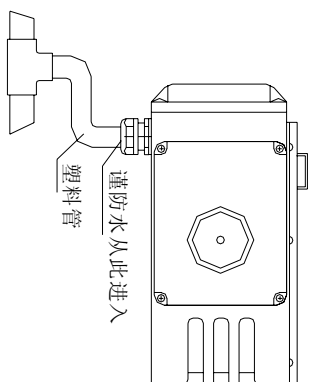


BV-5/10



## (2). 机械限位的调整

- ①. 用手柄转动至全开位置。
- ②. 松开锁紧螺母，旋转调整螺钉，使之与机械挡块接触，然后反方向旋转螺钉半圈，锁紧螺母。
- ③. 用同样办法，可进行全闭位置的机械挡块的调整。



## (3). 保险丝、短路开关的选用

其容量请选用在其正常工作电流的2~3倍间比较合适。但必须使用保险丝和短路开关。

## (4). 断电开关保险丝的选用

| 型号               | 保险丝 | 电机功率 (W) |
|------------------|-----|----------|
| BV-2、5           | 3A  | 15       |
| BV-10            | 5A  | 25       |
| BV-20、50、100、200 | 7A  | 50、110   |

## 7. 安装

### (1). 室内安装注意事项

- ①. 属非防爆产品，不要安装在有爆炸性气体的室内。
- ②. 安装在有水和原料飞溅的地方时，请加装遮蒸整机的防护罩。
- ③. 请预留进线、手动时所需要的空间。
- (2). 室外安装注意事项
- ①. 请装遮蒸整机的防护罩，避开雨水和阳光直射。
- ②. 请预留进线、手动时所需要的空间。

注：室外阳光直射会造成高温，加速元件的老化，甚至失效；雨水会加速脚垫的老化，并在万一防水操作不当瞬间损坏产品

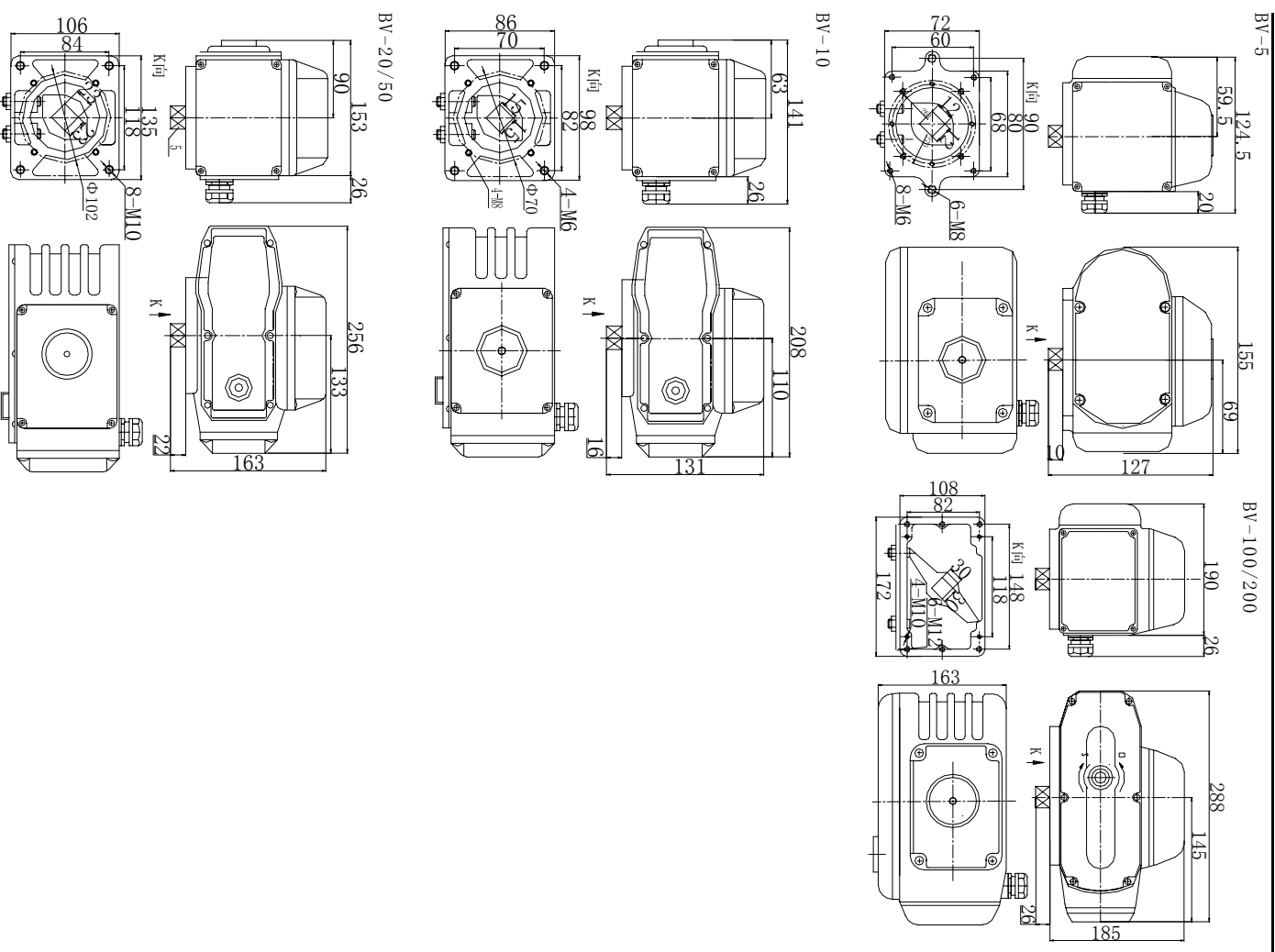
### (3). 环境温度、流体温度条件

- ①. 环境温度应在-30℃~+60℃范围内
- ②. 当流体温度高达100℃时，应使用高温型的连接架和接头将驱动装置安装在阀门上。

## 8. 特别说明

由于产品不断改进，本说明书电气连接图仅供参考，详细的电气接线图印于产品本身。

## 9. 外形尺寸

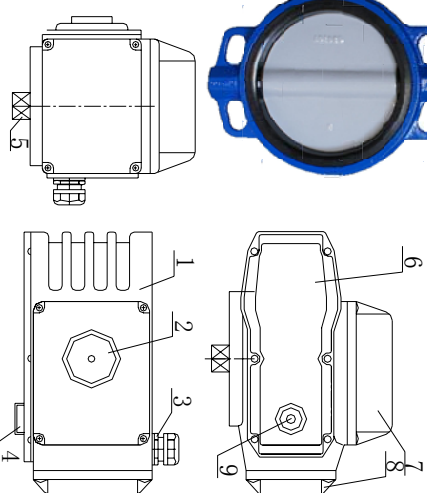
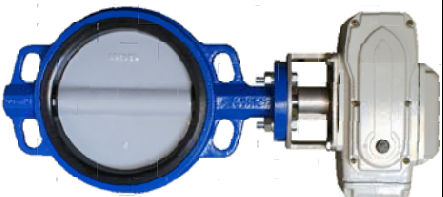


## BV Series

### Electric Valve Actuator Manuals

#### 1. Product introduction

BV series of electric valve actuator widely used in a variety of industrial sectors: oil, chemicals, electric power, refining, energy, building materials, preparation, paper, water treatment, food processing, shipping and building automation systems engineering, and so on. The products small size, light weight, the aesthetic appearance of generosity, the whole structure closer, matching simple, avoid refueling point seizure-free, water-proof antitrust, arbitrary point of installation. Multiple Power applicable Zun (24VAC, 110VAC, 220VAC, 380VAC, 24V DC, 220VDC), 5 seconds, 15 seconds, 30 seconds, 60 seconds variety of output time, will meet in a variety of different caliber valves in different conditions demand. Intelligent valve electric actuator: digital creation, digital tuning, a multifunctional energy: 1 to 5V, 0 to 10V standard signals to achieve the valve electric actuator intelligent control and precision positioning.



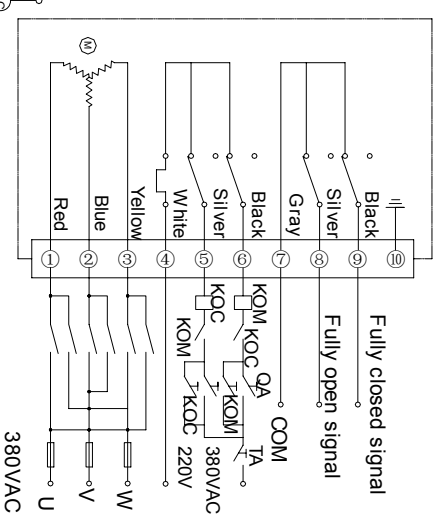
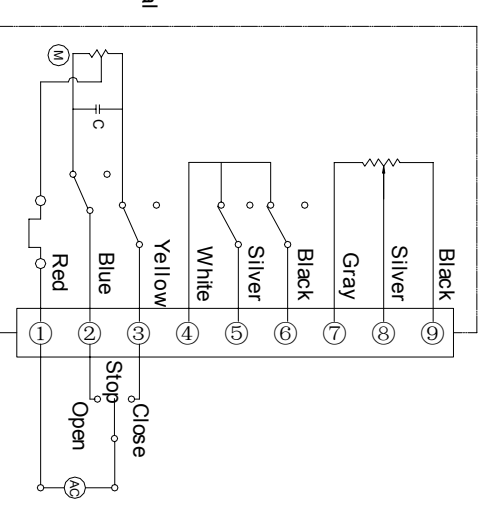
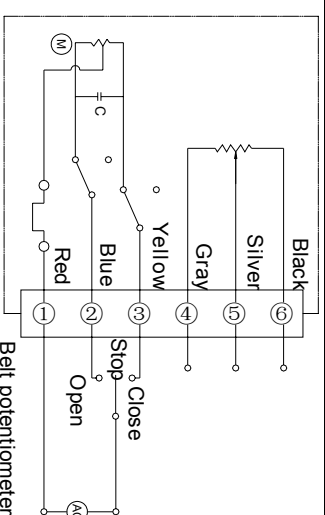
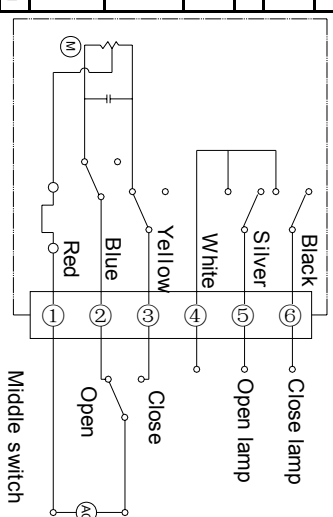
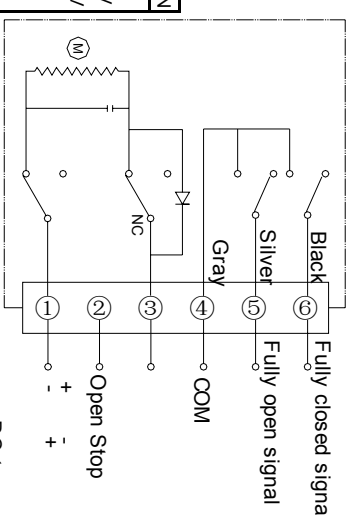
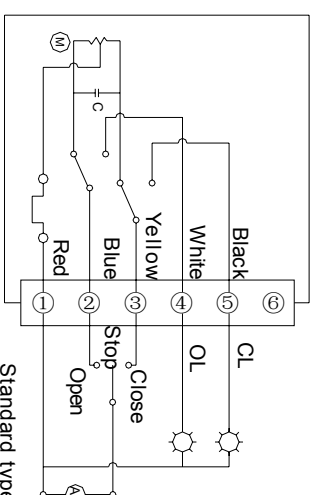
1.Box body 2. Opens a type 3.Inlet lock 4. The waterproof rubber fills 5.Output shaft 6.elevates the lid 7.Electrical lid 8.Wiring lid 9.Handle hole

#### 2. Rotation valve electrically operated execution characteristic parameter list

| Model                | BV-5                                         | BV-5N                                   | BV-10                                        | BV-10N                                  | BV-25                                        | BV-25N                                  | BV-50                                        | BV-50N                                  | BV-100                                       | BV-100N                                 | BV-200                                       | BV-200N                                 |
|----------------------|----------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------|
| Power supply         | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | AC-110V<br>AC-110V<br>AC-220V<br>AC-24V | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | AC-110V<br>AC-110V<br>AC-220V<br>AC-24V | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | AC-110V<br>AC-110V<br>AC-220V<br>AC-24V | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | AC-110V<br>AC-110V<br>AC-220V<br>AC-24V | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | AC-110V<br>AC-110V<br>AC-220V<br>AC-24V | 110VAC<br>220VAC<br>24VAC<br>380VAC<br>24VDC | AC-110V<br>AC-110V<br>AC-220V<br>AC-24V |
| Moment of Bve        | 50N·M                                        |                                         | 100N·M                                       |                                         | 250N·M                                       |                                         | 500N·M                                       |                                         | 1000N·M                                      |                                         | 2000N·M                                      |                                         |
| Time/s               | 5, 10, 15, 20, 60                            |                                         |                                              |                                         | 5, 10, 15, 30, 60                            |                                         |                                              |                                         | 360                                          |                                         | 100                                          |                                         |
| Electrical machinery | 15W                                          |                                         | 25W                                          |                                         | 50W                                          |                                         | 90W                                          |                                         | 110W                                         |                                         | 110W                                         |                                         |
| Protection           | Hot protection                               |                                         |                                              |                                         |                                              |                                         |                                              |                                         |                                              |                                         |                                              |                                         |
| Rotation angle       | 90°                                          |                                         |                                              |                                         |                                              |                                         |                                              |                                         |                                              |                                         |                                              |                                         |
| Ambient tem-         | -10℃~+60℃                                    |                                         |                                              |                                         |                                              |                                         |                                              |                                         |                                              |                                         |                                              |                                         |
| Pressure resistance  | 1500V                                        |                                         |                                              |                                         |                                              |                                         |                                              |                                         |                                              |                                         |                                              |                                         |
| Weight               | 2.5Kg                                        | 2.8Kg                                   | 4Kg                                          | 4.5Kg                                   | 7Kg                                          | 7.5Kg                                   | 7.8Kg                                        | 12Kg                                    | 12Kg                                         | 12.5Kg                                  | 12.8Kg                                       |                                         |

|                  |                         |
|------------------|-------------------------|
| Waterproof       | IP-67                   |
| Spacing          | Electrical machinery    |
| Cabinet Material | Aluminium alloy         |
| Manual operation | Supplements the handle  |
| Input signal     | 4mA~20mA, 1V-5V, 0V-10V |
| Output signal    | 4mA~20mA, 1V-5V, 0V-10V |

#### 3.Circuit diagram

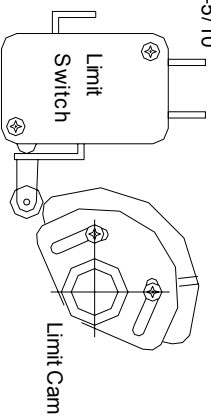


#### 4.Switch angle adjustment

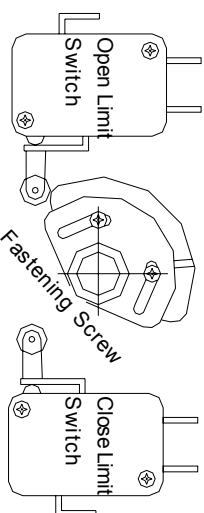
(1). Electrical spacing adjustment

The pine opens the traveling schedule files block the bolt, taps the traveling schedule with the screwdriver to keep off the block, the adjusts the traveling schedule to keep off the block the angle, from surface change electricity spacing make and break angle. Finally, practically fastens the good traveling schedule to keep off the block the bolt.

BV-5/10



BV-25/50/100/200



(2). Mechanical spacing adjustment

①. To all opens the position with the handle rotation.

②. The pine opens locks the nut, revolves the adjusting screw. Causes it to keep off the block contact with the machinery, then, the reversed direction revolves the bolt half-turn, locks the nut.

③. With the similar means, may carry on all shuts the position. The machinery keeps off the block the adjustment.

## 5. Valve connection

(1). The manual rotation valve, determined does not have the unusual situation, and changes to the valve all shuts the position, if the ball valve, must change to all opens the position.

(2). Gently fixes the support with the bolt on the valve, simultaneously shaft coupling set on valve lever.

(3). Inserts the electrically operated installment output shaft to the shaft coupling in, gently fixes the electrically operated installment with the bolt on the support.

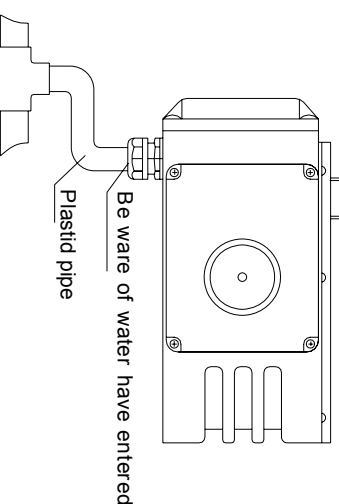
(4). The manual rotation electrically operated installment, confirmed doesn't have the bias, situation and so on deactivation, screws tight on the support each bolt.

(5). When valve necessary use, the actuating medium temperature can conduct the valve electrically operated execution, the valve electrically operated execution organism temperature also can elevate. In order to decreases the heat conduction function as far as possible, the actuating medium temperature when is higher than 60℃ please select the high temperature support.

## 6. Matches the line connection

(1). Please use  $\Phi 6 - \Phi 11$  the cable, in-the cross-sectional area than was 1 mm<sup>2</sup>. Cable lines will pass through locks, cables thread ends anchored in the terminal stage, tightens the coat which the line lock jacket to locking cable.

(2). Figure below, the use of wires, waterproof should fully take countermeasures. This valve should ensure that the electrical wiring of the above devices, in order to prevent water inflow electrical installations along the wires, causing machinery damage.



| Model            | Fuse | Motor power(W) |
|------------------|------|----------------|
| BV-2.5           | 3A   | 15             |
| BV-10            | 5A   | 25             |
| BV-25,50,100,200 | 7A   | 50,110         |

## 7. Installation

(1). Indoor Installation Notes

If the non-explosion-proof products, are not installed in the indoor explosive gases. Installation of water and raw materials in the place where spatter to the installation of lamb unit to hide the defensive cover. Please reserve into line, manually when needed space.

(2). Outdoor Installation Notes

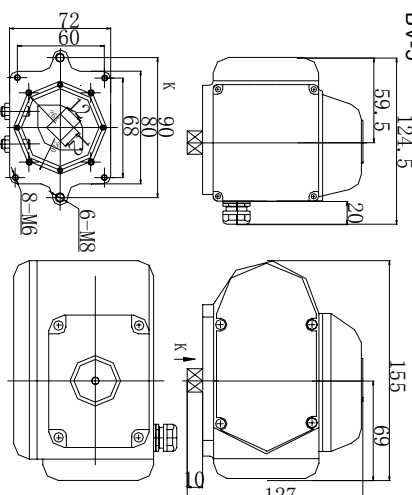
Please lamb unit installed to hide the defensive cover, avoid direct sunlight and rain. Please reserve into line, manually when needed space. Note: outdoor direct sunlight will cause high temperatures, accelerated aging components, or even failure. Rainwater will accelerate foot pad of aging, and do not operate in the event of waterproofing products was instantaneous damage.

(3). Environmental temperature, fluid temperature conditions

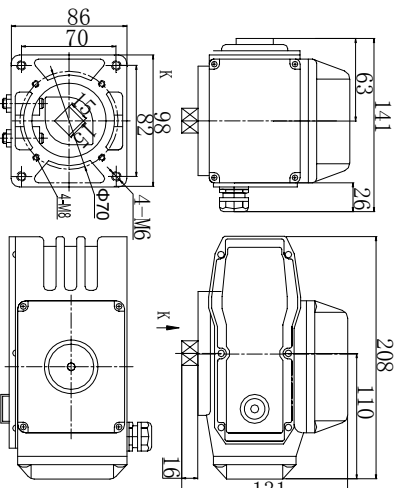
Environmental temperature should be -30℃ to +60℃ range. When the fluid temperature to 100℃ should be used when the temperature of the joints connecting frame and will be the driving devices installed in the valve on.

## 8. Dimensions

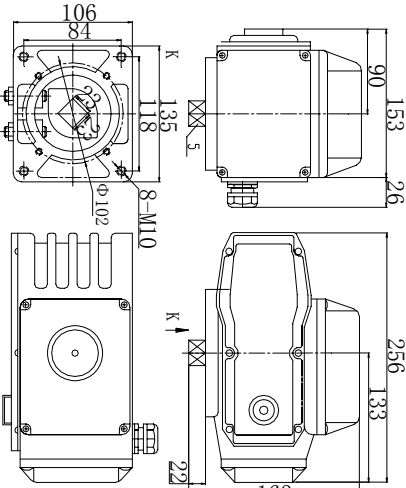
BV-5



BV-10



BV-25/50



BV-100/200

