

## Kombi-8F 系列安装及调试说明

### 法兰式压力无关线型温度调节阀

#### 安装及调试说明



#### 主要技术参数

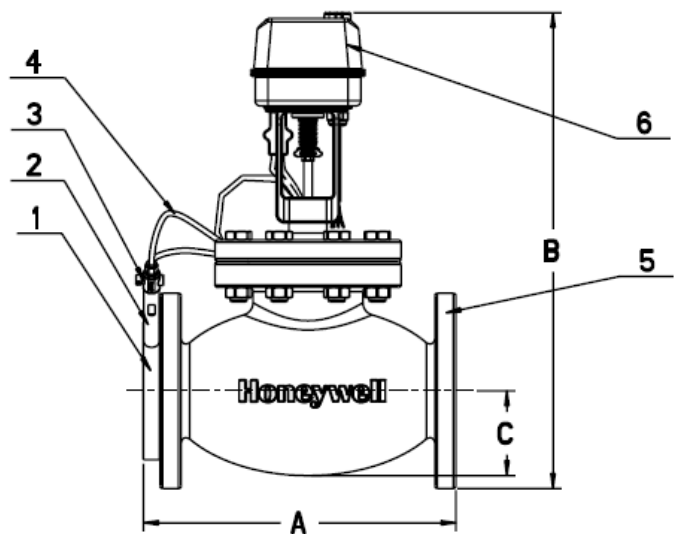
尺寸范围: DN65~DN150	流量控制精度: $\pm 4\%$
最大流量调节范围: 60~100%	最大关闭压力: 10bar
输入信号: 0/2~10VDC	调节阀连接: 法兰
0/4~20mA	ISO7005-2
工作电压: 24VAC	反馈信号: 2~10VDC
电气连接: 1米长电缆	调节阀额定压力: PN16
材 质: 调节阀\铸铁	采样直管\不锈钢SS304
专用排气阀\黄铜	前置感应器\不锈钢SS304
介 质: 水、乙二醇水溶液	介质温度: 0~120°C
环 境 温 度: -10~50°C	大 气: 无腐蚀无爆炸

#### 选型

尺寸	ML-SBE 系列超级电动执行器组件 OS#	调节阀 OS#
DN65	ML7420A6033-SBE065	V5328A1179
DN80	ML7420A6033-SBE080	V5328A1187
DN100	ML7421B1023-SBE100	V5088A1005
DN125	ML7421B1023-SBE125	V5088A1013
DN150	ML7421B1023-SBE150	V5088A1021

图标说明:

1. 前置感应器 2. 采样直管 3. 专用排气阀  
4. 软管 5. 调节阀 6. 超级电动执行器



#### 主要性能参数及尺寸

尺寸	额定最大流量 (m <sup>3</sup> /h)	工作压差范围 (kPa)	最大流量调节范围	流量控制精度	A (mm)	B (mm)	C (mm)
DN65	26	30~250	60% ~ 100%	$\pm 4\%$	310	446.5	92.5
DN80	40	30~250			330	456	100
DN100	63	30~250			370	617	110
DN125	103	30~250			420	670	125
DN150	137	30~250			500	687.5	142.5

## ML-SBE 系列超级电动执行器组件

ML-SBE 系列超级电动执行器组件由超级电动执行器、前置感应器、采样直管和专用排气阀等构成。

### 性能参数

OS#	配调节阀尺寸	功率消耗	行程	防水等级	轴向力	全行程时间	储藏温度	相对湿度
ML7420A6033-SBE065	DN65	6VA	20mm	IP54	$\geq 600\text{N}$	60S	-10~65°C	5%~95%
ML7420A6033-SBE080	DN80							
ML7421B1023-SBE100	DN100	12VA	38mm		$\geq 1800\text{N}$	175S		
ML7421B1023-SBE125	DN125							
ML7421B1023-SBE150	DN150							

### 警告

安装前应仔细阅读说明书，如果不按照说明书的内容去做，可能导致损坏产品或其它危险的情况。

### 安装前

1. 安装前应查验说明书给定的参数，并确认产品符合用户的应用要求；
2. 必须确保安装者是训练有素、富有实际经验的专业安装人员，严禁非专业人员从事此产品的安装。

### 调节阀和前置感应器的安装

1. 调节阀和前置感应器在系统管道设备安装时进行安装（前置感应器在超级电动执行器组件包装内）；
2. 调节阀的安装应确保调节阀体上的箭头方向与水系统管道水流方向一致，调节阀可以水平或竖直安装；
3. 前置感应器安装在调节阀的进水口，如图1所示，安装时保证感应器上的箭头方向与水流方向一致，感应器上两个取压孔的中心轴线应保证与水平面成45°，如图2所示；
4. 安装前置感应器时，应注意观察两个取压孔的位置，一个取压孔取的是内部节流孔进水端水压（上有高压标记‘H’），另一个取压孔取的是内部节流孔出水端的水压（上有低压标记‘L’）；
5. 应在前置感应器进水管系统设置除污器，以避免在系统管道清洗后焊渣或污垢淤积在前置感应器处。

螺纹与前置感应器的取压孔连接，确保密封要求，并做好高压管和低压管的标记；

3. 专用排气阀为一种球阀结构的排气阀，一端为外螺纹，连接采样直管，一端为连接软管的锥形挤压式接头；
4. 专用排气阀包括三个工作位置：开启、关闭和排气（排气必须在阀门关闭的时候进行），分别如图4、5、6所示；

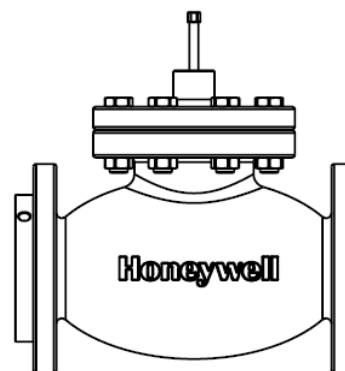


图 1 前置感应器安装

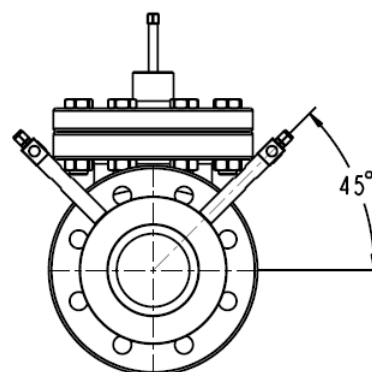


图 2 前置感应器安装角度

### 采样直管和专用排气阀的安装

1. 安装完调节阀和前置感应器后，可以进行采样直管和专用排气阀的安装（此部件也在超级电动执行器组件的包装内），如图3所示；
2. 采样直管一端为外螺纹，一端为内螺纹，将外

5. 随包装箱配两个排气阀操作工具，用于开启和关闭阀门，如图7、8所示；在开启状态，排气阀进出口连通但不能排气，在关闭状态，排气孔与连接采样直管的外螺纹接口连通，拧开排气孔上的排气帽进行排气；
6. 安装专用排气阀前需检查三个位置的工作状态，以确保排气阀能正常工作；
7. 将排气阀安装在导压管上，并确保密封要求。

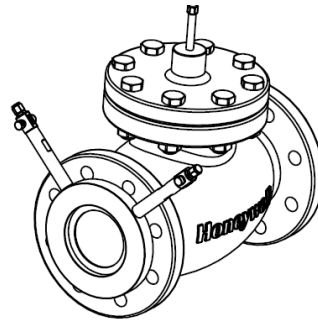


图3 采样直管及排气阀安装

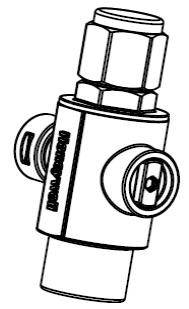


图4 排气阀全开

## 警告

**必须严格按照以下步骤进行超级电动执行器及其软管的安装，否则会导致损坏产品或其它危险的情况。**

### 超级电动执行器安装前的准备工作

1. 空调水系统的管道试压工作、管道清洗工作已经完毕，管道中的污垢等已经清理干净；
2. 空调水系统正式运转前，管道已充满纯净水。

### 超级电动执行器的安装

1. 将调节阀杆提升并保持在最高处并与执行器的连接板连接，旋转执行器手动旋钮，使其连接板升到最高处，拧紧下端顶丝与调节阀固定，执行器下端面尽可能与调节阀的连接平面齐平，必要时需调节阀杆连接螺母（以上工作须在准备工作前做，以下须在准备工作完成后才能实施），执行器的安装如图9所示；
2. 用专用工具同时开启两个专用排气阀，确保放出所有淤积的气体，直到只有水而没有任何气体排出为止；
3. 同时开启和关闭排气阀若干次，以确保排气阀开启和关闭灵活（若发现两个排气阀开关动作不一致应及时进行处理以保证动作灵活且一致）；
4. 同时关闭两个排气阀；
5. 观察超级电动执行器上传感组件的外壳下侧（如图10所示），标注为“H”处连接的软管为高压软管，标注为“L”处连接的软管为低压软管；
6. 将高压软管连接到高压排气阀上，将低压软管连接到低压排气阀上，并锁紧螺母确保密封，如图11所示，（注意：软管内已充满硅油，安装时应避免硅油泄漏以及气体进入软管）；



图5 排气阀全关

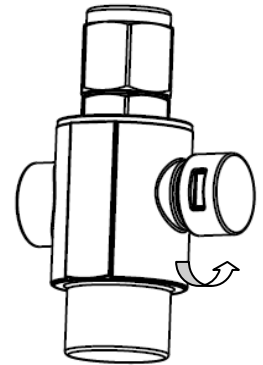


图6 逆时针旋转排气帽排气

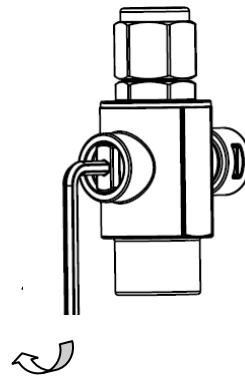


图7 顺时针旋转  
排气阀关闭



图8 逆时针旋转  
排气阀开启

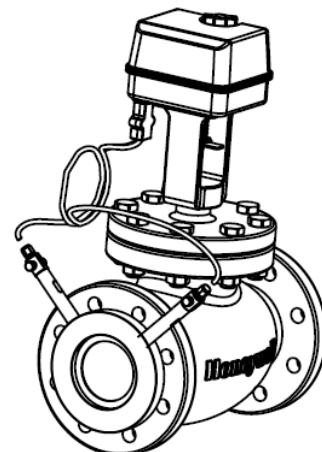


图9 电动执行器安装

时进行，否则会导致产品损坏。41366 www.shjqkt.com

## 运行过程中的排气

在系统运行过程中，如发现取压管需要排气，则需进行以下操作：

1. 用专用工具同时关闭两个排气阀；
2. 拧开专用排气阀上的排气帽进行排气，直到只有水而没有任何气体排出为止；
3. 拧紧两个排气帽；
4. 同时打开两个专用排气阀。

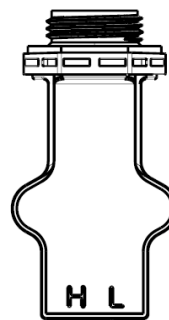


图 10 传感组件

## 过渡性季节系统排水后的安装

对于过渡性季节，如果系统需要排空水，而新的采暖季或空调季需要重新注满水的系统，应以下步骤进行操作：

1. 在排空水前关闭两个排气阀；
2. 在系统重新注满水后先拧开专用排气阀上的排气帽进行排气，直到只有水而没有任何气体排出为止；

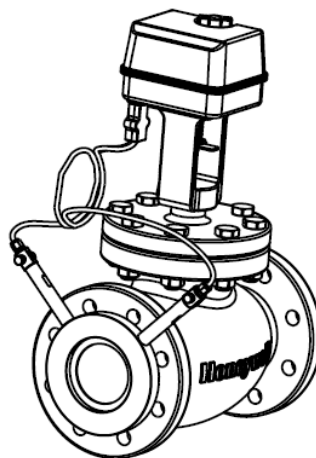
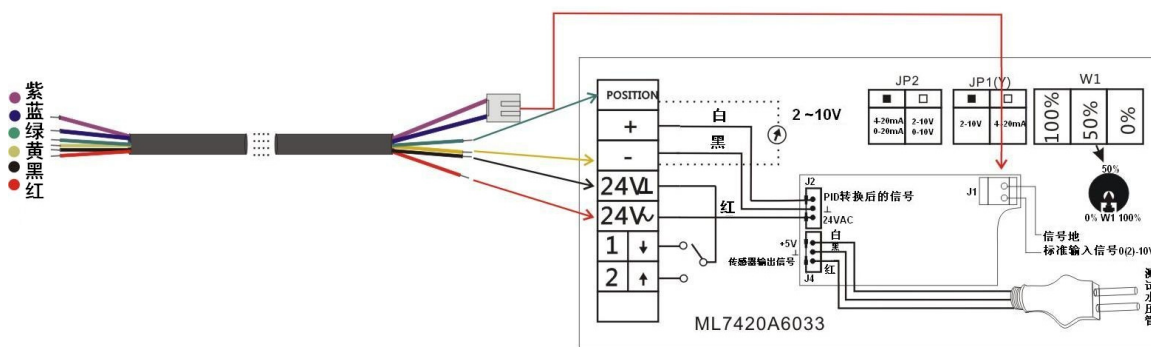


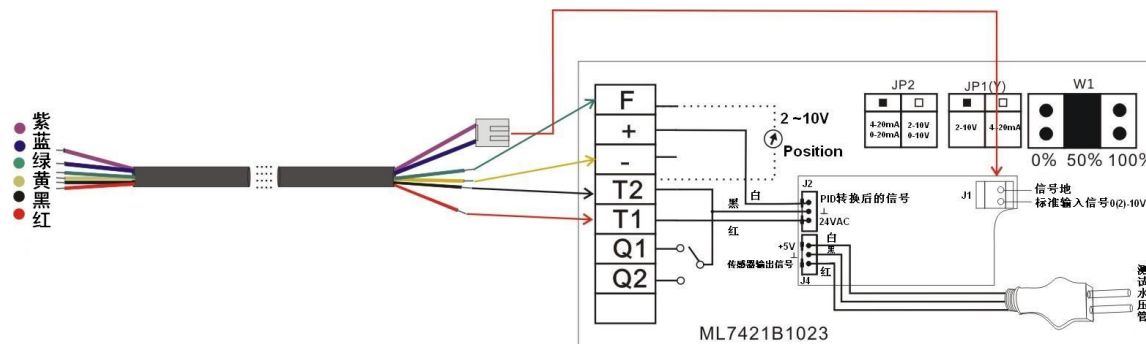
图 11 高压软管安装

## 超级电动执行器接线图

超级电动执行器的接线图如下，其中输入控制信号的形式在内部PCB控制器上，直接选择设定即可，而无需改变出厂时的机械设定。



ML7420A6033-SBE 系列接线图



ML7421B1023-SBE 系列接线图

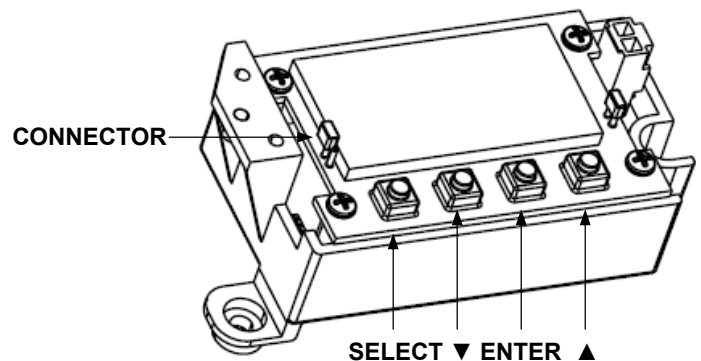
注：1. 紫色线为信号地，黑色线是电源地；  
2. 黑色线、红色线为 24VAC 电源，紫色线、蓝色线为标准输入信号，黄色线、绿色线为反馈信号。  
上海君琼空调科技有限公司021-60341366 www.shjqkt.com

## Kombi-8调试说明

Kombi-8系列压力无关线形温度调节阀的超级电动执行器内置PCB控制器（如右图），在运行前必须先进行简单的参数及输入信号设定。

### 按键说明

- ‘SELECT’ 键：进入密码输入区域，设定模式的参数切换；
- ‘▲’ 键：参数向上调整；
- ‘▼’ 键：参数向下调整；
- ‘ENTER’ 键：显示模式参数切换，设置模式的参数确认；
- ‘CONNECTOR’：连接器，用于输入信号选择  
 连接器插在两个接线柱上：0/4~20mA  
 连接器插在一个接线柱上：0/2~10VDC



### 面板图标内容说明

图标	显示内容	图标	显示内容	图标	显示内容
DATA	主显示区	SET1	参数设定区	Qs	最大设定流量
DN	调节阀规格	Si	输入信号形式	T	最大流量调节系数
P	比例常数	I	积分时间常数	D	微分时间常数
Rev	正反比例系数	Tval	特征值	Pass	旁通模式
Kvs	流量系数	Qr	额定最大流量	Pmin	启动工作压差
Pmax	最大工作压差	m <sup>3</sup> /h	流量单位	kPa	压差单位
V	电压单位	mA	电流单位		

### 常态显示

常态下 LCD 面板显示最大设定流量 Qs。

### 正常显示模式

在正常显示模式下按 ENTER 键，LCD 面板依次显示以下参数：最大设定流量 Qs→调节阀规格 DN，流量系数 Kvs→额定最大流量 Qr→最小工作压差 Pmin→最大工作压差 Pmax→输入信号形式 Si→（回圈）。

### 参数设定模式

在正常显示模式下按 SELECT 键，进入密码输入区域，按▲、▼键输入密码，然后按 ENTER 键确认，这时进入参数设定模式：

- 在参数设定模式下按 SELECT 键依次显示以下参数：调节阀规格 DN→输入信号形式 Si→最大流量调节系数 T→比例常数 P→积分时间常数 I→微分时间常数 D→正反比调节系数 Rev→特征值 Tval→旁通功能选择 Pass→（回圈）；
- 如需对某参数进行重新设定，按▲或▼键，向上或向下调节参数；
- 参数选定后，按 ENTER 键确认。设定值闪烁 3 秒，

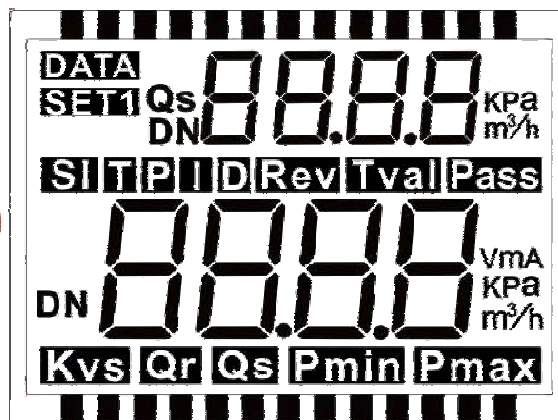
表示参数修改已经确认，并存入内存；

- 如没有按 ENTER 键确认而直接按 SELECT 键，当前选定值无效，LCD 直接显示下一项参数；
- 所有参数设定完毕后，按 ENTER 键 2 秒，退出参数设定模式，恢复到正常显示模式；
- 这时系统立刻按新设置的参数值运行。

### 参数设定

- 调节阀规格 DN：根据所配阀门在 DN25、DN32、DN40、DN50、DN65、DN80、DN100、DN125、DN150 之间选择；
- 输入信号形式 Si：0~10V，2~10V，0~20mA，4~20mA 共 4 种选择；
- 最大流量调节系数 T：缺省值为 1.00，设定范围为 0.60~1.05，调节步长 0.01；
- PID 参数：缺省值为(100, 50, 0)，一般不需要调整。P 设定范围为 0~500,调节步长 1；I 设定范围为 0~5000，调节步长 1；D 设定范围为 0~5000,调节步长 1；
- 正反比调节系数 Rev：缺省值为 0，无须调整；

- 特征值 Tval: 缺省值为 3, 设定范围为 0、1、2、3、4、5, 调节步长为 1;
- 旁通功能选择 Pass: 缺省值为 0, 设定范围为 0、1, 调节步长为 1。当 Pass=0 时, Kombi8 处于压力无关工作模式, 具有压力无关、线型温度控制和电动调节功能; 当 Pass=1 时, Kombi-8 处于旁通工作模式, 这时只有电动调节功能。



特征值	0	1	2	3	4	5
应用范围	八排管空调箱	八排或六排管空调箱	四排或六排管空调箱	四排管空调箱	二排或四排管空调箱	特殊用途、线形流量输出

**Honeywell**

**霍尼韦尔环境自控产品（天津）有限公司**

地址: 天津经济技术开发区南海路158号  
 电话: +86-22-66287000  
 传真: +86-22-25329935  
 霍尼韦尔保留对产品进行修改的权利, 恕不事先通知!

## Instructions for Installation and Commissioning of Kombi-8F Series Flanged Pressure Independent Integrated Balancing Control Valve

### Instructions for Installation and Commissioning



#### Major Technical Parameters

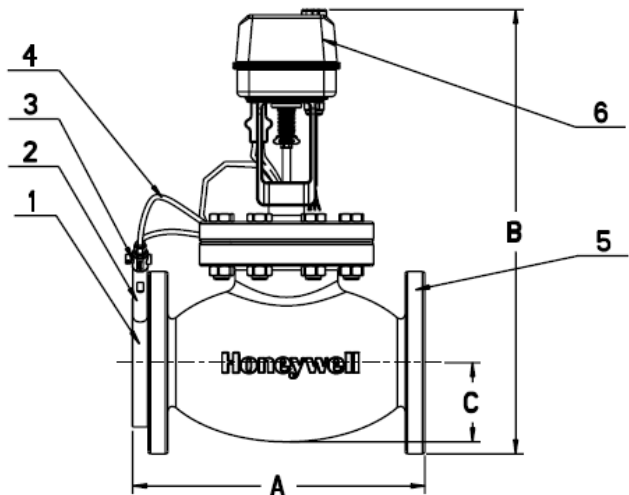
Size range: DN65~DN150	Flow control accuracy: $\pm 4\%$
Max. set flow range: 60%~100%	Max. close-off pressure: 10bar
Input signal: 0/2~10VDC, 0/4~20mA	Supply voltage: 24VAC
Feedback signal: 2~10VDC	Electric connection: 1m power cable
Rated pressure of control valve: PN16	Connection of control valve: Flange, ISO7005-2
Material: Control valve/ cast iron	Sampling straight pipe/stainless steel SS304
Special exhaust valve/brass	Pre-sensor/stainless steel SS304
Media: Water, glycol solution	Media temperature: 0~120°C
Ambient temperature: -10~50°C	Atmosphere: Non-corrosive, non-explosive

#### Selection

Size	ML-SBE Series Super Actuator Component OS#	Control Valve OS#
DN65	ML7420A6033-SBE065	V5328A1179
DN80	ML7420A6033-SBE080	V5328A1187
DN100	ML7421B1023-SBE100	V5088A1005
DN125	ML7421B1023-SBE125	V5088A1013
DN150	ML7421B1023-SBE150	V5088A1021

#### Description of Icons:

- |               |                           |                          |
|---------------|---------------------------|--------------------------|
| 1. Pre-sensor | 2. Sampling straight pipe | 3. Special exhaust valve |
| 4. Hose       | 5. Control valve          | 6. Super actuator        |



#### Major Performance Parameters and Sizes

Size	Rated Max. Flow (m <sup>3</sup> /h)	Operating Differential Pressure Range (kPa)	Max. Flow Regulating Range	Flow Control Accuracy	A (mm)	B (mm)
DN65	26	30~250	60% ~ 100%	$\pm 4\%$	310	446.5
DN80	40	30~250			330	456
DN100	63	30~250			370	617
DN125	103	30~250			420	670
DN150	137	30~250			500	687.5

#### ML-SBE Series Super Actuator Component

ML-SBE Series Super Actuator Component consists of super actuator, pre-sensor, sampling straight pipe and special exhaust valve.

### Performance Parameters

OS#	Control valve size	Power consumption	Stroke	Waterproof standard	Close-off Force	Total stroke run-time	Storage Temp.	Relative Humidity
ML7420A6033-SBE065	DN65	6VA	20mm	IP54	≥600N	60S	-10~65℃	5%~95%
ML7420A6033-SBE080	DN80							
ML7421B1023-SBE100	DN100	12VA	38mm		≥1800N	175S		
ML7421B1023-SBE125	DN125							
ML7421B1023-SBE150	DN150							

### Warning

**Before installation, read the instruction carefully. Failure to do as per instructions may cause damage to the product or other dangers.**

### Before Installation

1. Before installation, check the parameters given in the instructions and confirm the compliance of the product with the application requirements of the user;
2. Make sure that the installer is the well-trained and experienced professional installation personnel. Non-professional personnel are prohibited to install the product.

### Installation of Control Valve and Pre-sensor

1. Control valve and pre-sensor are installed along with the installation of the system pipeline equipment, see Fig. 1, while the pre-sensor is enclosed in the package of the super actuator component;
2. To install the control valve, make sure the arrow on the control valve body in the same direction of the water flow in the water system pipeline. Details please refer to the accompanying installation manual of control valve;
3. The pre-sensor is installed at the inlet of the control valve, make sure the arrow direction on the sensor to be consistent with the flow direction. And the central axis of the two pressure sampling holes on the sensor to be horizontally 45°, see Fig. 2;

### Installation of Sampling Straight Pipe and Special Exhaust Valve

1. After the control valve and pre-sensor installed, The installation of the sampling straight pipe and special exhaust valve can proceed, see Fig. 3, which are also enclosed in the package of the super actuator component;
2. Of the two sampling straight pipes, one end is male screw and the other end is female screw. Screw the male screw into the pressure sampling holes of the pre-sensors and ensure the seal requirement, Label the two pipes with high-pressure pipe and low-pressure pipe;
3. The special exhaust valve is a kind of exhaust valve with ball-valve structure, with one male screw end in connection with the sampling straight pipe and the other lock-type hose coupling end in connection with the hose;
4. Special exhaust valve has three working positions: open, close and close & exhaust, see Fig. 4-6;

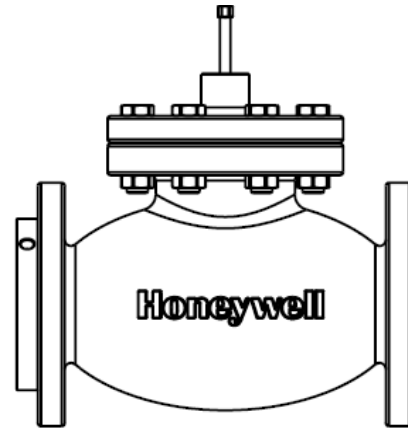


Fig. 1. Control valve and pre-sensor installation

4. As install the pre-sensor, make sure to observe the position of the two pressure sampling holes: one pressure sampling hole is for the water pressure (marked with 'H' at high pressure hole) at the water intake of the internal throttle hole and the other for the water pressure (marked with 'L' at low pressure hole) at the water outtake of the internal throttle hole;
5. It is necessary to set up the dirt separator at the supply pipe of pre-sensor to prevent deposition of any welding slag or dirt at pre-sensor.

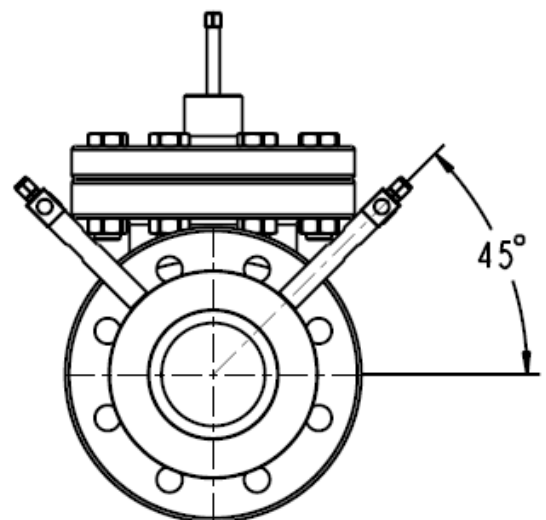


Fig. 2. Pre-sensor installation angle



- The two accompanying special tools for exhaust valve are used to open and close the valve, see Fig. 7,8; in the open position, the inlet and outlet of the exhaust valve are connected but cannot exhaust; in the close position, the relief hole is connected with the male-screw port in connection with the sampling straight pipe; relieve the air by turning open the relief cap on the relief hole;
- Prior to installation of the special exhaust valve, it is necessary to check the working status in the three positions to ensure that the exhaust valve be in normal operation;
- Install the special exhaust valve on the sampling straight pipe and ensure the sealing requirements.

## Warning

**Make sure to install the super actuator and hoses thereof strictly according to the following procedure; otherwise it may cause damage to the product or other dangers.**

## Preparation for Installation of Super Actuator

- The pipeline pressure testing and cleaning of the air-conditioning water system has been completed and dirt and so on in the pipeline has been cleared away;
- The water pipeline is full clean water before the air-conditioning water system is put into normal operation.

## Installation of Super Actuator

- To install the super electric actuator on the control valve, see Fig. 9, make sure that when the actuator's driving shaft retracts to the shortest position, the control valve is in the full-open position; (The above work may also be carried out before preparation, while the following work shall be executed only after the preparatory work is completed)
- With the special tools, open simultaneously the two special exhaust valves and make sure to relieve all the air therein till only water but no air will come out;
- Simultaneously open and close the exhaust valves several times to ensure the exhaust valves are flexibly opened and closed (in case of observing that the two exhaust valves open and close inconsistently, it is necessary to take action to ensure that the two valves be simultaneously flexibly opened and closed );
- Simultaneously close the two exhaust valves;
- Observe, below the outer casing of the sensing component on the super actuator (as shown in the right figure), the hose connected at the place marked with "H" is the high-pressure hose and the hose connected at the place marked with "L" is the low-pressure hose, see Fig. 10;
- Connect the high-pressure hose to the high-pressure exhaust valve, see Fig.11, connect the low-pressure hose to the low-pressure exhaust valve and lock the nut firmly for proper sealing(The silicon oil fill the hose, Avoid oil leakage and air incursion during installation);

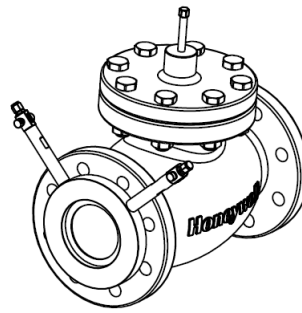


Fig. 3. Sampling straight pipe and special exhaust



Fig. 4. Exhaust valve fully open



Fig. 5. Exhaust valve fully closed

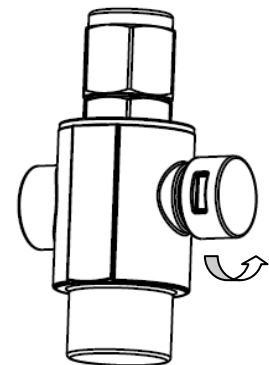


Fig. 6. Turn anticlockwise to relieve



Fig. 7. Turn anticlockwise to open the exhaust valve

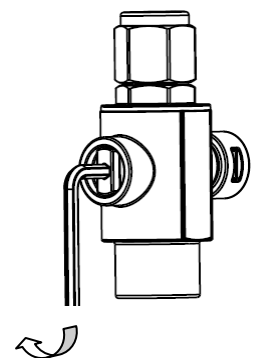


Fig. 8. Turn clockwise to close the exhaust valve

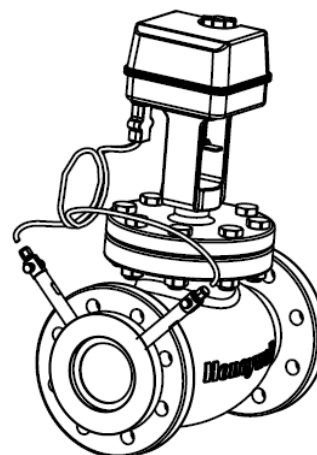


Fig. 9. Actuator installation

7. Simultaneously open the two exhaust valves (**warning: make sure the operation shall be carried out simultaneously; otherwise, it may cause damage to the product**).

**Air Relief in Operation**

During the operation of the system, where it is found necessary to relieve airs for the pressure sampling pipe, operate as follows:

1. With the special tools, simultaneously close the two exhaust valves;
2. Screw open the relief cap on the special exhaust valve to relieve the air till only water but no air will come out;
3. Screw tight the two air relief caps;
4. Simultaneously open the two special exhaust valves.

**Installation after Drainage of System in Transitional Season**

Where it is necessary to drain out the water from the system in the transitional season and the system needs to be filled with water in the new heating or air-conditioning season, operate according to the following procedure:

1. Close the two exhaust valves before draining out the water;
2. With the system refilled with water, first screw open the relief cap on the special exhaust valve for air relief till only water but no air will come out;
3. Screw tight the two air relief caps;
4. Simultaneously open the two special exhaust valves.

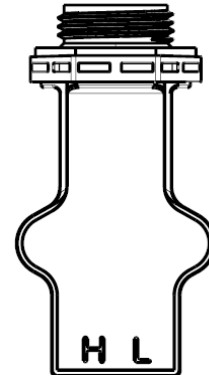


Fig. 10. Sensing Component

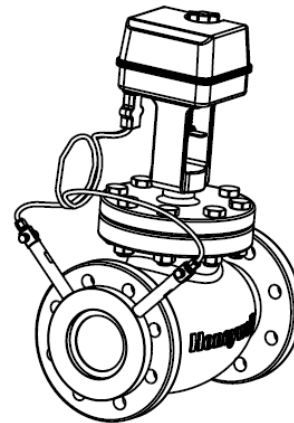
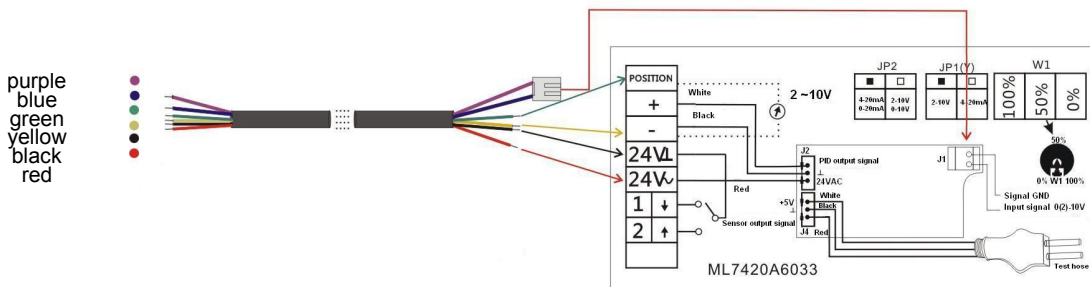


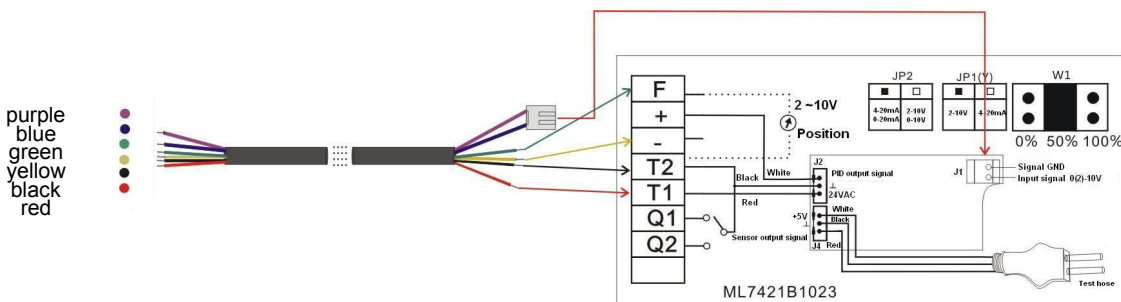
Fig. 11. High-pressure hose installation

**Wiring Diagram for Super Actuator**

The wiring diagram of the super electric actuator is as follows. The mode of the input control signal can be set directly by selecting in the built-in PCB controller, without the need to change the ex-factory mechanical setting.



ML7420A6033-SBE Series Wiring Diagram



ML7421B1023-SBE Series Wiring Diagram

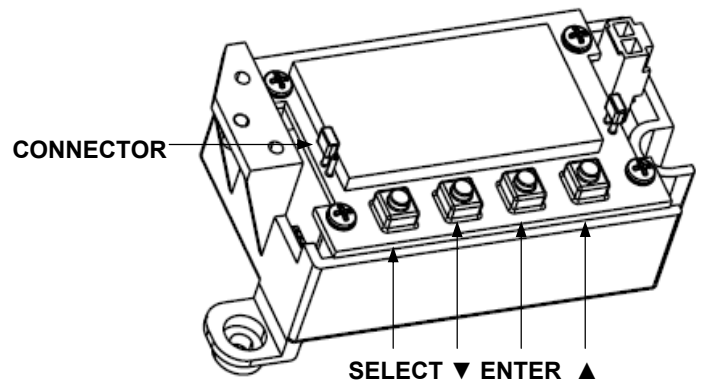
- Notes:
1. The purple wire is the signal earthing, while the black wire is the power earthing;
  2. Black wire and red wire are 24VAC power supply, the purple wire and blue wire are standard input signal, the yellow wire and green wire are feedback signal.
- 上海君琼空调科技有限公司021-60341366 www.shjqkt.com

## Instructions for Commissioning of Kombi-8

For the built-in PCB controller in the super actuator of Kombi-8 Series Pressure Independent Integrated Balancing Control Valve (as shown in the following figure), it is necessary to carry out the simple parameter and signal input setting prior to operation.

### Description of Keys

- 'SELECT' key: enter password input area, setting mode parameter switches
- '▲' key: adjust the parameters upward;
- '▼' key: adjust the parameters downward;
- 'ENTER' key: display mode parameters switches, setting mode parameters confirmation;
- 'CONNECTOR': signal input selectable  
Connect with two terminal: 0/4~20mA  
Connect with one terminal: 0/2~10VDC



### Description of Panel Icons

Icon	Display Content	Icon	Display Content	Icon	Display Content
DATA	Main display area	SET1	Parameter setting area	Qs	Max. set flow
DN	Control valve size	Si	Input signal mode	T	Max. flow set coefficient
P	Proportional constant	I	Integration constant	D	Differential constant
Rev	Positive & reverse proportional coefficient	Tval	Characteristic value	Pass	Bypass mode
Kvs	Flow coefficient	Qr	Rated max. flow	Pmin	Start-off operating pressure difference
Pmax	Max. operating pressure difference	m <sup>3</sup> /h	Flow unit	kPa	Pressure difference unit
V	Voltage unit	mA	Current unit		

### Normal Display

In a normal state, LCD panel displays the maximum set flow Qs.

### Normal Display Mode

In the normal display mode, press ENTER key so that the LCD panel will display successively the following parameters: max. set flow 'Qs' → control valve size 'DN', flow coefficient 'Kvs' → rated max. flow 'Qr' → min. operating pressure difference 'Pmin' → max. operating pressure difference 'Pmax' → input signal mode 'Si' → (return circle).

### Parameter Setting Mode

In the normal display mode, press SELECT to enter the password input area, press ▲ or ▼ keys to key in the password, then press ENTER key for confirmation to enter the parameter setting mode.

- In the parameter setting mode, press SELECT key to display successively the following parameters: control valve size 'DN' → input signal mode 'Si' → max. flow set coefficient 'T' → proportional constant 'P' → integration constant 'I' → differential constant 'D' → positive and reverse proportional control

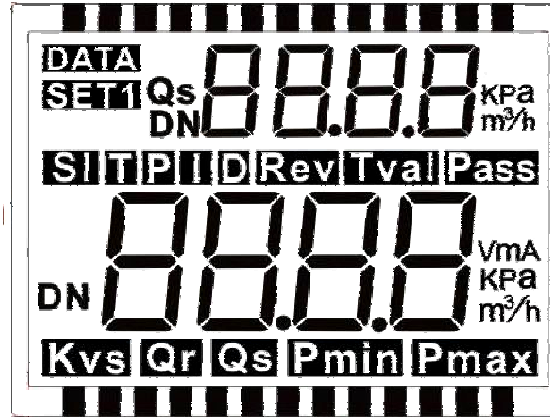
coefficient 'Rev' → characteristic value 'Tval' → bypass function selection 'Pass' → (return circle);

- To reset one parameter, press '▲' or '▼' key to adjust the parameters upward or downward;
- With the parameter set, press 'ENTER' key for confirmation. The set value flashes for 3 seconds, indicating the revised parameters is confirmed and stored in the memory;
- If pressing directly 'SELECT' key without pressing 'ENTER' key, the current set value is invalid and the LCD directly displays next parameter;
- With all the parameters set, press-hold 'ENTER' key for 2 seconds to quit the parameter setting mode and return to the normal display mode;
- Then the system will immediately operate according to the newly set parameter value.

### Parameter Setting

- Control valve size 'DN': according to the valve required, select among DN25, DN32, DN40, DN50, DN65, DN80, DN100, DN125 and DN150;
- Input signal mode 'Si': 4 choices for 0~10V, 2~10V, 0~20mA or 4~20mA;
- Max. flow set coefficient 'T': default value is 1.00,

- setting range is 0.60~1.05, control step length is 0.01;
- PID parameters: default value is (100,50,0), which is not to be adjusted generally. P setting range is 0~500, control step length is 1; I setting range is 0~5000, control step length is 1; D setting range is 0~5000, with a control step length of 1;
- Positive and reverse proportional control coefficient 'Rev': default value is 0, which shall not be adjusted;
- Characteristic value 'Tval': default value is 3, with a setting range of 0, 1, 2, 3, 4, 5 and a control step length of 1;
- Bypass function selection 'Pass': default value is 0, setting range is 0, 1, control step length is 1. When 'Pass'=0, Kombi8 is in the pressure independent operating mode, with the pressure independent, linear temperature control and electric regulating functions; when 'Pass'=1, Kombi-8 is in the bypass operating mode, only with the electric regulating function.



Characteristic value	0	1	2	3	4	5
Application Range	8- coil AHU	8 or 6-coil AHU	4 or 6-coil AHU	4-coil AHU	2 or 4-coil AHU	Special purposes, linear flow output

**Honeywell**

**Automation and Control Solutions**

Honeywell Environmental & Combustion Controls (Tianjin) Co., Ltd.

158 Nan Hai Road, TEDA, Tianjin, 300457, P.R.C

Phone: +86-22-66287000

Fax: +86-22-25329935

Subject to change without notice.