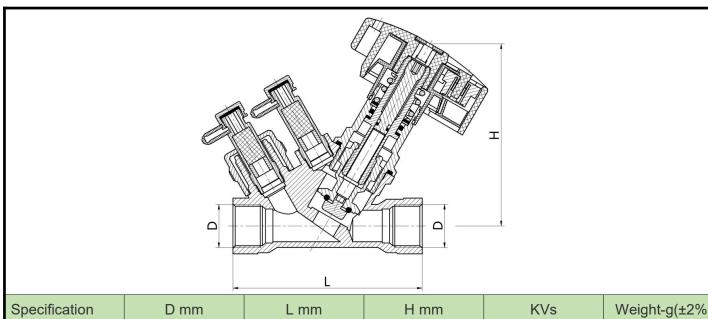
### TECHNICAL FILE FOR BRASS BALANCING VALVES

| 1: Description and Appearance |  |   |  |  |  |  |  |
|-------------------------------|--|---|--|--|--|--|--|
| 1/2 / PN25                    |  | Balancing digital valve operates  |  |  |  |  |  |
| 3/4 // PN25                   | anter Contraction of the Contrac | accurately in a variety of<br>environments and has a wide range<br>of applications for heating and coolin |  |  |  |  |  |
| 1 ″ PN25                      |  |   |  |  |  |  |  |
| 1 1/4 // PN25                 |  |   |  |  |  |  |  |
| 1 1/2 / PN25                  | A Contraction of the second se | water supply systems.   |  |  |  |  |  |
| <b>2</b> ″ PN25               |  |   |  |  |  |  |  |
| 2: Parameters                 | 2: Parameters  |   |  |  |  |  |  |
| Nominal Diameter              | 1/2  | 2 //2 //  |  |  |  |  |  |
| Nominal Pressure              | 0.6  | 2.5MPa  |  |  |  |  |  |
| Working Temperature           | ≤ <b>150</b> °C  |   |  |  |  |  |  |
| Applicable medium             | Water under the temperature of -10-150 $^\circ \!$   |   |  |  |  |  |  |
| Flow characteristics          | Equal percentage   |   |  |  |  |  |  |
| Connection Type               | Female thread( G Type)   |   |  |  |  |  |  |
| 3.Parts and Materials         |  |   |  |  |  |  |  |

| Valve assemb | ly               |          | 08<br>02            |
|--------------|------------------|----------|---------------------|
| S/N          | Parts            | Material | Process             |
| 01           | Valve body       | HPB 57-3 | Brass nickel-plated |
| 02           | Valve Spool      | HPB 57-3 | Brass               |
| 03           | Male connector   | HPB 57-3 | Brass               |
| 04           | Color cover      | HPB 57-3 | Brass               |
| 05           | Plug             | HPB 57-3 | Brass               |
| 06           | Connecting Parts | Plastic  | Red Blue            |
| 07           | protective case  | Plastic  | Grey                |
| 08           | Hand wheel       | Plastic  | Black               |
| 09&10        | Seal             | EPDM     | Black               |

| Valve Spool Assembly                   |   |   |   |  |  |
|--|---|---|---|--|--|
| S/N                                    | Parts   | Material  | Process   |  |  |
| 0/11                                   |   | HPB 57-3  |   |  |  |
| 01                                     | Valve Cover   | ПРБ 37-3  | Brass nickel-plated   |  |  |
|  | Valve Cover<br>Seal head  | HPB 57-3  | Brass nickel-plated<br>Brass                                |  |  |
| 01                                     |   |   |   |  |  |
| 01<br>02                               | Seal head   | HPB 57-3  | Brass   |  |  |
| 01<br>02<br>03                         | Seal head<br>Plug   | HPB 57-3<br>HPB 57-3  | Brass<br>Brass  |  |  |
| 01<br>02<br>03<br>04                   | Seal head<br>Plug<br>stem   | HPB 57-3<br>HPB 57-3<br>HPB 57-3                                | Brass<br>Brass<br>Brass                                     |  |  |
| 01<br>02<br>03<br>04<br>05             | Seal head<br>Plug<br>stem<br>Spool upper part                               | HPB 57-3<br>HPB 57-3<br>HPB 57-3<br>HPB 57-3                    | Brass<br>Brass<br>Brass<br>Brass                            |  |  |
| 01<br>02<br>03<br>04<br>05<br>06       | Seal head<br>Plug<br>stem<br>Spool upper part<br>Spool lower part           | HPB 57-3<br>HPB 57-3<br>HPB 57-3<br>HPB 57-3<br>HPB 57-3        | Brass<br>Brass<br>Brass<br>Brass<br>Brass<br>Brass          |  |  |
| 01<br>02<br>03<br>04<br>05<br>06<br>07 | Seal head<br>Plug<br>stem<br>Spool upper part<br>Spool lower part<br>Spring | HPB 57-3<br>HPB 57-3<br>HPB 57-3<br>HPB 57-3<br>HPB 57-3<br>304 | Brass<br>Brass<br>Brass<br>Brass<br>Brass<br>Brass<br>SS304 |  |  |



| Specification | D mm      | Lmm | H mm  | KVs    | Weight-g(±2%) |
|---------------|-----------|-----|-------|--------|---------------|
| 1/2 ″         | G 1/2 ″   | 90  | 87    | 1.286  | 540           |
| 3/4 ″         | G 3/4 ″   | 97  | 87    | 1.593  | 630           |
| 1 ″           | G 1 ″     | 110 | 90.5  | 2.287  | 830           |
| 1 1/4 ″       | G 1 1/4 ″ | 124 | 97    | 4.163  | 1100          |
| 1 1/2 ″       | G 1 1/2 ″ | 130 | 107   | 6.378  | 1460          |
| 2 ″           | G 2 ″     | 154 | 110.5 | 10.275 | 2110          |

### 5.Flowing data

| Turns / n   | Flowing m <sup>3</sup> /h |       |       |         |         |        |  |
|---|---------------------------|-------|-------|---------|---------|--------|--|
|   | 1/2 ″                     | 3/4 ″ | 1 ″   | 1-1/4 ″ | 1-1/2 ″ | 2 ″    |  |
| 0.5   | 0.124                     | 0.175 | 0.278 | 0.282   | 0.508   | 0.662  |  |
| 1   | 0.268                     | 0.404 | 0.556 | 0.644   | 1.220   | 1.286  |  |
| 1.5   | 0.419                     | 0.582 | 0.763 | 1.156   | 2.148   | 2.246  |  |
| 2   | 0.617                     | 0.672 | 1.189 | 1.649   | 3.061   | 3.680  |  |
| 2.5   | 0.780                     | 1.025 | 1.412 | 2.404   | 3.944   | 4.822  |  |
| 3   | 0.942                     | 1.250 | 1.758 | 3.042   | 4.798   | 7.504  |  |
| 3.5   | 1.106                     | 1.428 | 2.040 | 3.478   | 5.586   | 9.496  |  |
| 4   | 1.286                     | 1.593 | 2.287 | 4.163   | 6.378   | 10.275 |  |
| Note: The data is only for reference when selecting the valve. The actual opening degree depends on the final |                           |       |       |         |         |        |  |

testing result by the special instrument according to the different medium

actual pressure, and flow demand after the valve was installed.

#### 6.Packing

6.1 Each valve packed in one poly bag,box,every box must be with one "instruction sheet", several boxes packed in carton,then in pallet;

6.2 Loading/Unloading and transportation must be handled with care;

6.3 Box,Carton sizes and capacity

| Specification | Box Size (cm) | Box Capacity(pc) | Carton Size(cm) | Carton Capacity(pc) |
|---------------|---------------|------------------|-----------------|---------------------|
| 1/2 ″         | 13*14*7       | 1                | 33*27.5*32.5    | 16                  |
| 3/4 ″         | 13*14*7       | 1                | 33*27.5*32.5    | 16                  |
| 1 ″           | 13*14*7       | 1                | 33*27.5*32.5    | 16                  |
| 1 1/4 ″       | 17*17*8       | 1                | 39*25.5*38      | 12                  |
| 1 1/2 ″       | 17*17*8       | 1                | 39*25.5*38      | 12                  |
| 2 ″           | 17*17*8       | 1                | 39*25.5*38      | 12                  |

#### 7.Logo/Carton Label/wooden case Label

7.1 Valve body must be with buyer's lazer logo

7.2 Carton labels must indicate the product name/size/ and it must be printed or tied on the two fronts of the carton

7.3 Pallet label must indicate the buyer name, product name, size and quantity

#### 8.Testing

8.1 Test Medium: Compressed air

8.2 Filling and other joint sealing parts test: 2.3 Mpa pressure lasting3—5 min, the valve should be no leakage

8.3 Compressive strength test: 3.0 Mpa pressure lasting 3—5 min, the valve should be no leakage

8.4 Sealing surface seal test: 0.6-0.8mpa lasting3—5min, the valve should be no leakage

#### 9.Installation and instruction

9.1 Installation location and Precautions

9.1.1 The balancing valve can be installed on the return pipe or on the water supply line, and only one installation is required in each loop. It is recommended to install the balancing valve on the return pipe with a lower water temperature.

9.1.2 The balancing valve on the manifold should be installed in the direction of the outlet of the pump.

9.1.3 The balancing valve can be installed horizontally or vertically.

9.1.4 The direction of flow of the medium should be the same as the direction marked on the valve body.

9.2 Precautions

9.2.1 The balance valve opening should not be arbitrarily changed.

After the balance valve installed in the pipe network system is adjusted, in order to maintain the equilibrium state of the system, the opening of the balance valve should not be arbitrarily changed during the normal operation of the system, especially the change of degree locking device is not allowed. 9.2.2.Pay attention to the balance between the new system and the original system

When a new system with a balancing valve is connected to the original system, attention should be paid to the balance of the water flow distribution between the new system and the original system, so that the new system (or the modified system) with the balancing valve is not able to achieve the required water flow. At this time, a balancing valve should be added at the entrance of the original system.

#### 10.Warranty

10.1 Warranty period:one year from the B/L date

10.2 If there are some big problem with the valves, the seller must give some additional valves to the buyer free in the next shipment, but the quantity must be less than 3% of the total quantity of the relative size

10.3 Identification and resolution of quality claims: The buyer must provide enough pictures/video or other evidence to prove the problems to the seller. If the two parties cannot reach an agreement, they will submit a third party test. and all test charges will be shared by two parties.