



## Application

Tozen Double Regulating Valves are installed and used in centralised heating and cooling systems to obtain design flow rates of each terminal units and balancing the circuits in the building.

## Function

- Balancing
- Measuring
- Pre-setting
- Isolating

## Dimensions

| Size (mm) | L (mm) | H (mm) | D (mm) | Kvs  |
|-----------|--------|--------|--------|------|
| 65        | 290    | 263    | 200    | 104  |
| 80        | 310    | 268    | 200    | 116  |
| 100       | 350    | 300    | 240    | 213  |
| 125       | 400    | 328    | 290    | 333  |
| 150       | 480    | 340    | 290    | 476  |
| 200       | 600    | 525    | 350    | 768  |
| 250       | 730    | 572    | 420    | 1153 |
| 300       | 850    | 686    | 420    | 1743 |
| 350       | 980    | 681    | 420    | 1798 |
| 400       | 1100   | 965    | 640    | 2338 |
| 450       | 1200   | 972    | 640    | 2698 |
| 500       | 1250   | 1065   | 640    | 3708 |
| 600       | 1450   | 1180   | 640    | 4500 |

Note: Kvs at fully open position.

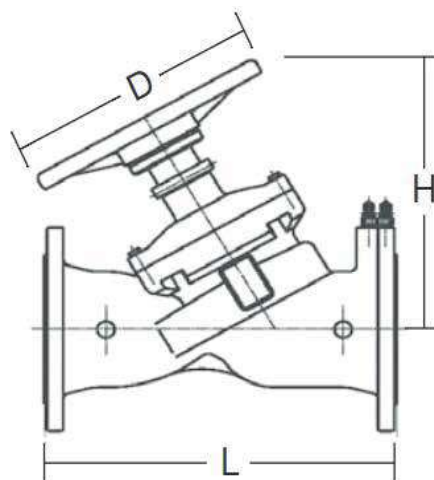
## Features

- Y-pattern globe design, fixed orifice type.
- Accuracy of  $\pm 5\%$  at full open position of the valve.
- Equipped with 2 measuring nipples for differential pressure measurement.
- Microset adjustment range for maximum flow control.
- Double regulating feature allows valve opening to be set with allen key.
- Long neck for thermal insulation.
- Flanged connection to EN1092-2 PN16 / PN25.
- Comply to BS 7350 Standard.

## Pressure / Temperature Ratings

|                     | DDRV-B                              | DDRV-B25 |
|---------------------|-------------------------------------|----------|
| Working Pressure    | 16 bar                              | 25 bar   |
| Testing Pressure    | Shell: 1.5 times<br>Seat: 1.1 times |          |
| Working Temperature | -10°C to 120°C                      |          |
| Suitable Media      | Water                               |          |

## Structure



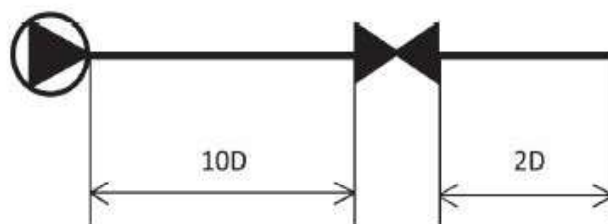
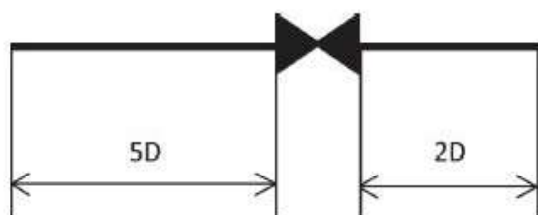


## Material

| Part              | Material                                        | EN             |
|-------------------|-------------------------------------------------|----------------|
| Body              | Ductile Iron                                    | EN-JS 1040     |
| Bonnet            | Ductile Iron                                    | EN-JS 1040     |
| Disc              | Ductile Iron with EPDM coated                   | EN-JS 1040     |
| Stem [65-300mm]   | Stainless Steel 410                             | BS970 410S21   |
| Stem [350-500mm]  | Stainless Steel 431                             | BS970 431S29   |
| Stem [600mm]      | Stainless Steel 630                             | -              |
| Gland [65-150mm]  | Brass                                           | EN12165 CW617N |
| Gland [200-600mm] | Ductile Iron                                    | EN-JS 1040     |
| Handwheel         | Ductile Iron                                    | EN-JS 1040     |
| Orifice Insert    | Brass [65-300mm]<br>Stainless Steel [350-600mm] |                |
| Measuring Nipple  | Brass                                           |                |

## Installation

- The Double Regulating Valve shall be installed with the arrow marking on the valve body in accord to the same flow direction in the pipe. It may be installed at any angle.
- The gasket must be assembled between the flanges when the valve is installed. It can ensure that the valve is concentric with the pipe and the exact measurement data can be read.
- Avoid welding with pipe while it is connected. Tighten flanges bolts alternately, diagonally and repeatedly with the same force.
- Up and down stream from the valve is required to avoid turbulence which will affect the accuracy.



\* Design and specifications are subject to change without prior notice.