

Series W-DPBV-16/25Q

W-DPBV-16/25Q-EN-202501

Differential Pressure Balancing Valve

Size: DN200-DN250

The Series W-DPBV differential pressure-balancing valve is designed to keep constant differential pressure between supply pipes and return pipes of a bypass, control valve or terminal equipment in air-conditioning or heating system. It avoids hydraulic disturbances resulting from variations in system differential pressure.

Features

- Self-acting differential pressure control, no external power needed
- Able to do on-site setting of differential pressure
- Wide controllable range of differential pressure
- Handwheel equipped with differential pressure indicator
- Self-sealing measuring points to protect against leakage
- Equipped with measuring points and air vent
- Equipped with a three-way measuring connector



Working Principle

When the service pressure difference of the system pipe increases, relying on the pressure change of its high and low pressure, the dynamic differential pressure balancing valve's chambers re-balance the forces acting on both sides of the diaphragm, at the same time, it drives the valve stem to move, reduces the valve opening, absorbs the increased utility pressure difference, and ensures the constant pressure difference at the controlled side.

Specification

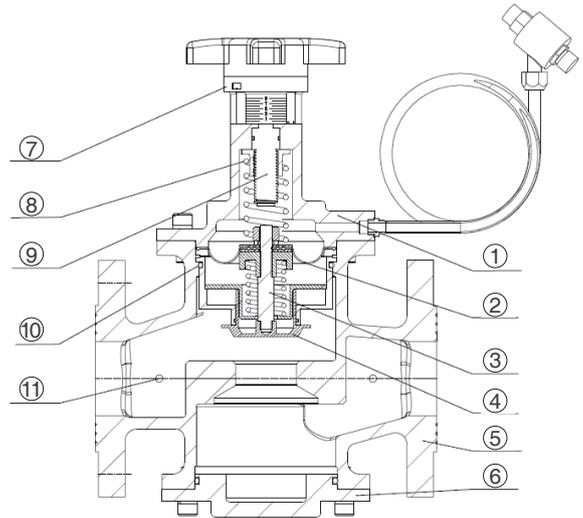
- Connection Type: Flange
- Connection Standard: EN1092-2
- Control Accuracy: $\pm 8\%$
- Maximum Working Differential Pressure: $\leq 400\text{KPa}$
- Working Medium: Cold And Hot Water/ethylene Glycol

Temperature - Pressure

- Nominal Pressure: $-10\sim 80^{\circ}\text{C}$
- Nominal Pressure: PN16、PN25

Material

No.	Component	Material
1	Upper Bonnet	Ductile Iron
2	Membrane	EPDM
3	Stem	Stainless Steel
4	Core	Stainless Steel
5	Body	Ductile Iron
6	Lower Bonnet	Ductile Iron
7	Handwheel	Nylon
8	Spring	Stainless Steel
9	Adjustable Stem	Stainless Steel
10	Seal	NBR
11	Measuring Mouth	Brass



Product Model

Type	Size	ΔP kPa	Kvs	EDP
W-DPBV200L-16Q	DN200	40-180	320	61180020
W-DPBV250L-16Q	DN250	40-180	400	61180021
W-DPBV200L-25Q	DN200	40-180	320	61180022
W-DPBV250L-25Q	DN250	40-180	400	61180023

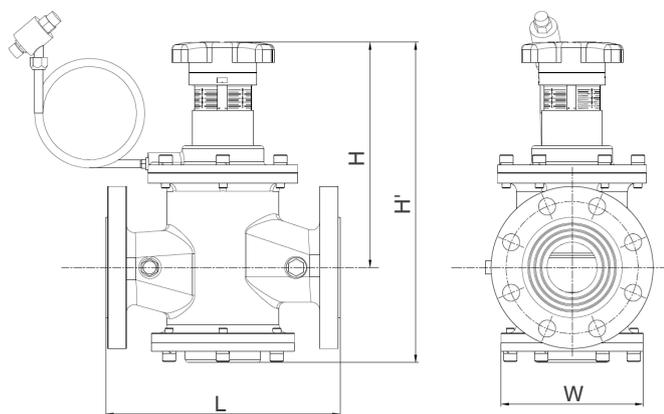
Model Description

W	WATTS	W-	DPBV	200	L-16	Q
DPBV	Differential Pressure Balancing Valve					
Size	200-DN200 250-DN250					
ΔP	L: Pressure Range 40-180kPa					
Nominal Pressure	PN16 PN25					
Material	Ductile Iron					

Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



Installation Dimensions



Size	L (mm)	H (mm)	H' (mm)	W (mm)	Weight (Kg)
DN200	600	428	655	390	187
DN250	730	458	715	390	221

Pressure Setting

Turns	DN200 40-180Kpa	DN250 40-180Kpa
0	40	40
1	50	50
2	60	60
3	70	70
4	80	80
5	90	90
6	100	100
7	110	110
8	120	120
9	130	130
10	140	140
11	150	150
12	160	160
13	170	170
14	180	180

Installation Instructions

The dynamic differential pressure balancing valve can be used alone or in combination with the static balancing valve. The dynamic differential pressure balancing valve is always installed on the return pipe. When it is used with the static balance valve, the static balancing valve is installed on inlet pipe. Please see as follows.

- ①—DPBV
- ②—STBV
- ③—ECV

