Series W-DPBV-16/25T(DN25-DN50)

Differential Pressure Balancing Valve

Application

The Series W-DPBV Differential Pressure Balancing Valve is designed to keep constant differential pressure across the supply pipes and return pipes, control valve or terminal unit in airconditioning or heating system. It avoids hydraulic disturbances resulting from variations in system differential pressure.

♦ Features

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

Operating Principles

When the network's differential pressure increases, the Differential Pressure Balancing Valve will diminish its opening automatically. This counteracts the increased value, ensuring constant differential pressure.

◆ Technical Specification

Dimensions: Working Temperature: -10~120°C **Working Pressure:** PN16/PN25

Cold and Hot Water / Ethylene Glycol Fluid Medium:

Connection: **Threaded Connection**

Connection Standard: ISO7/1 ±25% **Control Deviation: Working Pressure:** ≤ 300KPa

Materials:

1 Valve Body: Brass 2 Valve Seat: Brass 3 Valve Core: Brass 4 Valve Stem: **Brass**

5 Spring: Stainless Steel

EPDM 6 Membrane: **FPM** 7 Sealing: 8 Handwheel: PA

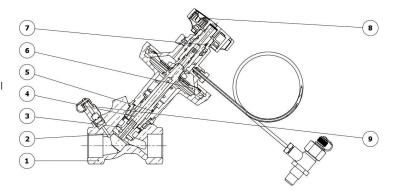
 Measuring Points: Stainless Steel

♦ Technical Parameters

Product Type and Working Range:

| Туре | Size | ΔP Control (KPa) | Kvs | EDP Code |
|----------------|------|---------------------|-----|----------|
| W-DPBV025S-16T | DN25 | | 6.5 | 616P2303 |
| W-DPBV032S-16T | DN32 | 5-30 | 13 | 616P2305 |
| W-DPBV040S-16T | DN40 | | 14 | 616P2307 |
| W-DPBV050S-16T | DN50 | | 20 | 616P2309 |
| W-DPBV025L-16T | DN25 | | 6.5 | 616P2304 |
| W-DPBV032L-16T | DN32 | 25-70 | 13 | 616P2306 |
| W-DPBV040L-16T | DN40 | | 14 | 616P2308 |
| W-DPBV050L-16T | DN50 | | 20 | 616P2310 |

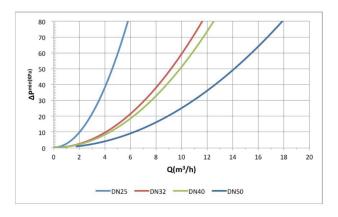




Coding Rules:

| | | W- | DPBV | 025 | S- | 16 | Т |
|-----------------|---|----|------|-----|----|----|---|
| w | WATTS | | | | | | |
| DPBV | Differential Pressure Balancing Valve | | | | | | |
| Size | | | | | | | |
| 025-DN25 | 032-DN32 | | | | | | |
| 040-DN40 | 050-DN50 | | | | | | |
| ΔP Range | | | | | | | |
| S – Small Range | L – Large Range | | | | | | |
| Pressure Class | | | | | | | |
| PN16 | PN25 | | | | | | |
| Body Material | Brass | | | | | | |

ΔP – Flow Charts:



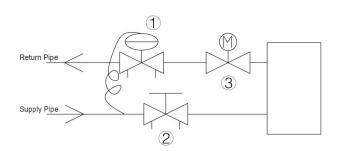
♦ Installation

The Differential Pressure Balancing Valve can work with a Static Balancing Valve or work alone. When combined with a Static Balancing Valve, it should be installed on the return pipe, while the Static Balancing Valve should be installed on the supply pipe.

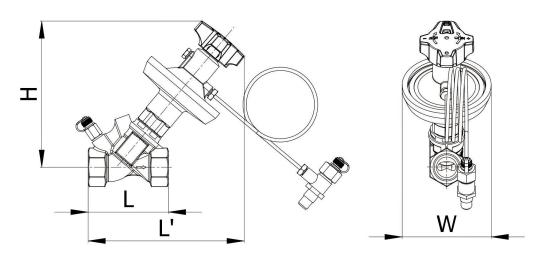
- 1 Differential Pressure Balancing Valve
- 2 Static Balancing Valve
- 3 Electric Control Valve

ΔP Setting Instruction:

| Turns | DN25-DN50 | | | |
|-------|-----------|----------|--|--|
| | 5~30kPa | 25~70kPa | | |
| 0 | 5 | 1 | | |
| 1 | 10 | 25 | | |
| 2 | 20 | 30 | | |
| 3 | 30 | 50 | | |
| 4 | 1 | 70 | | |



Installation Dimensions:



| Size | L(mm) | L'(mm) | H(mm) | W(mm) | Weight(Kg) |
|------|-------|--------|-------|-------|------------|
| DN25 | 98 | 192 | 177 | 108 | 2.8 |
| DN32 | 110 | 200 | 185 | 108 | 3.2 |
| DN40 | 120 | 207 | 192 | 108 | 3.7 |
| DN50 | 150 | 225 | 205 | 108 | 4.5 |