

ART 242

Differential Pressure Control Valve (DPCV)

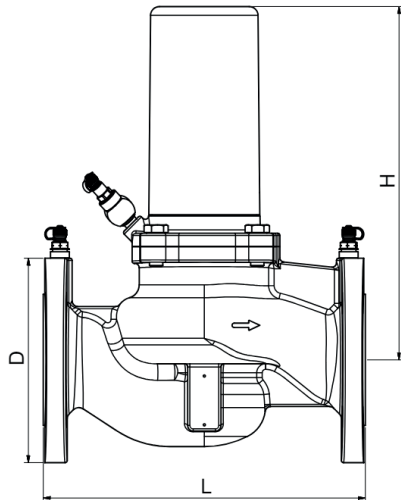


Features

- Flange Connections BS EN 1092-2.
- High flow rates up to 72.5l/s.
- Higher Kvs values to offer the lowest possible pressure loss.
- Integrated P/T plugs for efficient commissioning and troubleshooting.
- Can be used as a flow limiter when combined with a partner valve.
- 25 Bar version also available

Technical data

Max pressure: 16 Bar
 Max Differential pressure: 1000 kPa
 Working temp (DN50-125): -10°C to +120°C
 Working temp (DN150-200): -10°C to +110°C



Control Ranges

| DN50 |
|---------------|
| 20 - 80 kPa |
| 20 - 100 kPa |
| 50 - 200 kPa |
| 150 - 500 kPa |
| DN65 - DN100 |
| 20 - 100 kPa |
| 50 - 200 kPa |
| 150 - 500 kPa |
| DN125 - DN200 |
| 20 - 100 kPa |
| 90 - 350 kPa |

Part Name

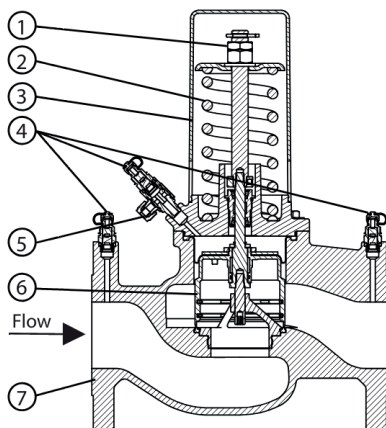
Material

| | |
|------------------------|-------------------------------|
| Valve Housing DN50-65 | Cast Iron GJL-250 |
| Valve Housing DN80-200 | Ductile Iron GJS-400 |
| Valve Cover | Ductile Iron GJS-400 |
| DP Controller | Stainless Steel |
| Spring | Spring wire (surface treated) |
| Spindle assembly | Stainless Steel |
| Diaphragm | Reinforced EPDM |
| O-Rings | EPDM |

| | DN50 | DN65 | DN80 | DN100 | DN125 | DN150 | DN200 |
|--------|----------|----------|----------|----------|----------|----------|----------|
| Series | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| L | 230 | 290 | 310 | 350 | 400 | 480 | 600 |
| H | 272 | 318 | 371 | 505 | 536 | 584 | 587 |
| D | 165 | 185 | 200 | 235 | 270 | 285 | 380 |
| Kgs | 16 | 21 | 31 | 50 | 77 | 115 | 180 |

ART 242

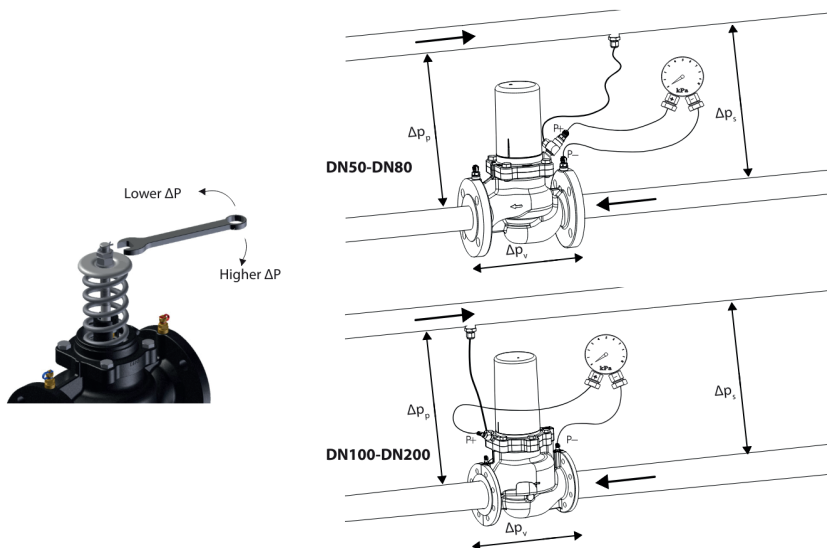
Differential Pressure Control Valve (DPCV)



1. Adjustment Screw
2. Spring
3. Spring Cover
4. P/T Plugs
5. Capillary tube connection
6. Piston
7. Housing

The ART 242 must be installed in the return line with the capillary tube connected to the inlet line.

The setting of the ART 242 is done with a wrench and a differential pressure manometer.



ART 242

Differential Pressure Control Valve (DPCV)



| DN50 - Standard | | | | |
|-----------------|-------------|-------------|---------------------|-----|
| Flow m³/h | Flow l/s | Flow gpm | Control Range (kPa) | Kvs |
| 3.2-13.0 | 0.90 - 3.60 | 14.1 - 57.2 | 20 - 100 | 29 |
| 5.1-20.5 | 1.42 - 5.70 | 22.5 - 90.3 | 50 - 200 | 29 |
| 8.9-35.5 | 2.47 - 9.87 | 39.2 - 156 | 150 - 500 | 29 |

| DN65 - Standard | | | | |
|-----------------|-------------|-------------|---------------------|-----|
| Flow m³/h | Flow l/s | Flow gpm | Control Range (kPa) | Kvs |
| 4.70 - 18.8 | 1.30 - 5.22 | 20.7 - 82.8 | 20 - 100 | 42 |
| 7.4 - 29.7 | 2.06 - 8.25 | 32.6 - 131 | 50 - 200 | 42 |
| 12.9 - 51.4 | 3.57 - 14.3 | 56.8 - 226 | 150 - 500 | 42 |

| DN80 - Standard | | | | |
|-----------------|-------------|------------|---------------------|-----|
| Flow m³/h | Flow l/s | Flow gpm | Control Range (kPa) | Kvs |
| 7.5 - 30.0 | 2.08 - 8.32 | 33.0 - 132 | 20 - 100 | 67 |
| 11.8 - 47.4 | 3.29 - 13.2 | 52.0 - 209 | 50 - 200 | 67 |
| 20.5 - 82.1 | 5.70 - 22.8 | 90.3 - 362 | 150 - 500 | 67 |

| DN100 - Standard | | | | |
|------------------|-------------|------------|---------------------|-----|
| Flow m³/h | Flow l/s | Flow gpm | Control Range (kPa) | Kvs |
| 12.9 - 51.4 | 3.57 - 14.3 | 56.8 - 226 | 20 - 100 | 115 |
| 20.3 - 81.3 | 5.65 - 22.6 | 89.4 - 358 | 50 - 200 | 115 |
| 35.2 - 141 | 9.78 - 39.1 | 155 - 621 | 150 - 500 | 115 |

| DN125 - Standard | | | | |
|------------------|-------------|------------|---------------------|-----|
| Flow m³/h | Flow l/s | Flow gpm | Control Range (kPa) | Kvs |
| 19.0 - 76.0 | 5.28 - 21.1 | 83.7 - 335 | 20 - 100 | 170 |
| 40.3 - 161 | 11.2 - 44.8 | 177 - 709 | 90 - 350 | 170 |

| DN150 - Standard | | | | |
|------------------|-------------|------------|---------------------|-----|
| Flow m³/h | Flow l/s | Flow gpm | Control Range (kPa) | Kvs |
| 28.0 - 112 | 7.76 - 31.1 | 123 - 493 | 20 - 100 | 250 |
| 59.3 - 237 | 16.5 - 65.9 | 261 - 1040 | 90 - 350 | 250 |

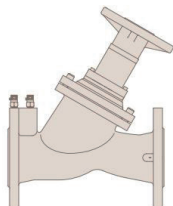
| DN200 - Standard | | | | |
|------------------|-------------|------------|---------------------|-----|
| Flow m³/h | Flow l/s | Flow gpm | Control Range (kPa) | Kvs |
| 30.7 - 123 | 8.54 - 34.2 | 135 - 542 | 20 - 100 | 275 |
| 65.2 - 261 | 18.1 - 72.5 | 287 - 1150 | 90 - 350 | 275 |

ART 242

Differential Pressure Control Valve (DPCV)



ART 255 (FODRV) - Optional Partner Valve for ART 242



| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|--------------------------------|----|----|----|-----|-----|-----|-----|-----|------|
| Kv Total (Fully open valve) | 38 | 57 | 79 | 137 | 260 | 415 | 612 | 971 | 1412 |

Kv = m³/h at a pressure drop of 1 bar across the fully open valve.