

## Restrictor Valve/Check Restrictor Valve

Model: DV(P)/DRV(P)...1X



- ◆ Size 6 to 30
- ◆ Maximum working pressure 350 bar
- ◆ Maximum working flow 375 L/min

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### Features

- Subplate mounting
- Threaded connection
- Adjusting spool in closed position without leakage from port A to port B

When turning the adjusting knob (2) anticlockwise, the spindle (4) with throttle rod (5) decreases the flow cross section (6) until it is completely closed without leakage. The area of coloured triangle (7) indicates how far the valve is open (the larger the coloured triangle is and the greater the opening is). The setting flow is fixed by locking device (3).

A graph of a hyperbola opening vertically. The hyperbola is centered at the origin. A dashed line represents the asymptote, which passes through the origin and has a positive slope. The hyperbola branches are located in the upper and lower regions relative to the asymptote.

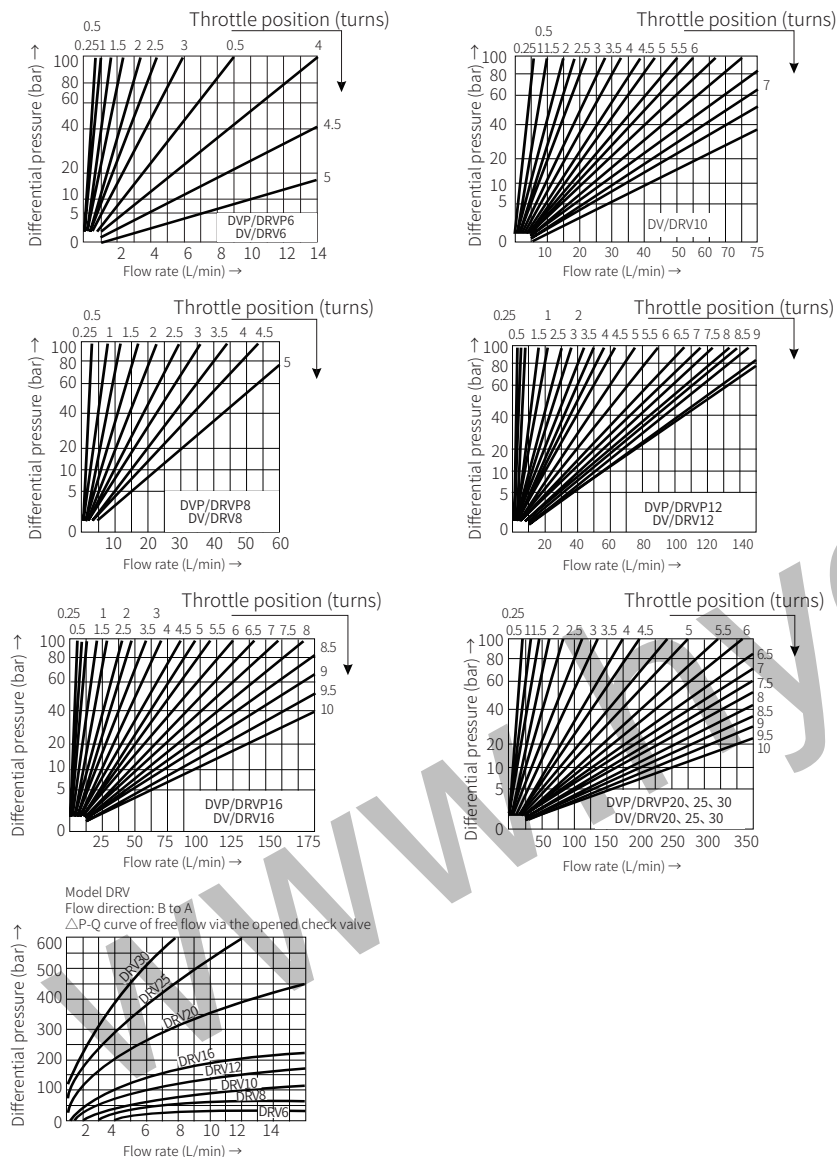
A circuit diagram of a Wheatstone bridge. It consists of four resistors arranged in a square. The top-left resistor is labeled 'A', the top-right is 'B', the bottom-left is 'C', and the bottom-right is 'D'. A diagonal wire connects the junction between A and C to the junction between B and D. This diagonal wire contains a variable resistor, represented by a rectangle with a diagonal arrow passing through it. The variable resistor is labeled 'E'.

[illegible]

## Characteristic curve

(Measured when using HLP 46,  $\vartheta_{oil} = 40^\circ\text{C} \pm 5^\circ\text{C}$ )

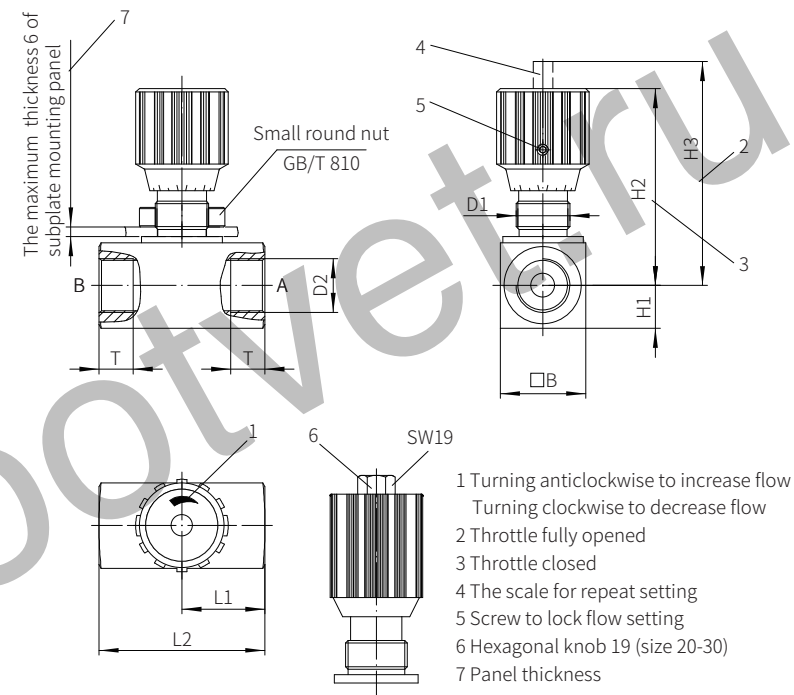
Flow direction: A to B, the relationship between differential pressure  $\Delta P$  and flow Q at the fixed throttle position



## Component size

Size unit: mm

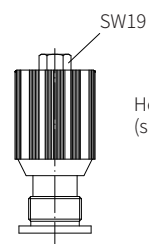
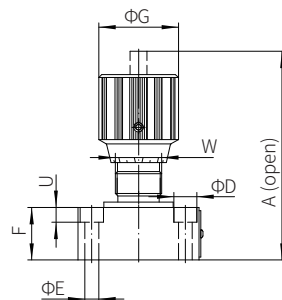
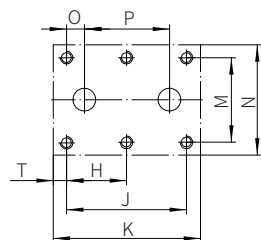
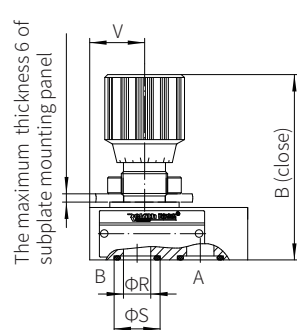
Threaded connection (Model DV/DRV)



Note: For size L1 and L2, the left is size for DV, the right is size for DRV.

| Size | □B | D1      | D2      |         | T  | H1   | H2    | L1 |      | L2  |     |
|------|----|---------|---------|---------|----|------|-------|----|------|-----|-----|
| 6    | 16 | M14X1.5 | G1/8"   | M10X1   | 8  | 8    | 53.5  | 19 | 26   | 38  | 45  |
| 8    | 25 | M18X1.5 | G1/4"   | M14X1.5 | 12 | 12.5 | 66.8  | 24 | 33.5 | 48  | 55  |
| 10   | 30 | M18X1.5 | G3/8"   | M18X1.5 | 12 | 15   | 69.3  | 29 | 41   | 58  | 65  |
| 12   | 35 | M22X1.5 | G1/2"   | M22X1.5 | 14 | 17.5 | 80.7  | 34 | 44   | 68  | 73  |
| 16   | 45 | M22X1.5 | G3/4"   | M27X2   | 16 | 22.5 | 85.7  | 39 | 57   | 78  | 88  |
| 20   | 50 | M33X2   | G1"     | M33X2   | 18 | 25   | 135.6 | 54 | 77   | 108 | 127 |
| 25   | 60 | M33X2   | G1 1/4" | M42X2   | 20 | 30   | 140.6 | 54 | 93   | 108 | 143 |
| 30   | 70 | M33X2   | G1 1/2" | M48X2   | 20 | 35   | 145.6 | 54 | 108  | 108 | 143 |

Subplate mounting (Model DVP)

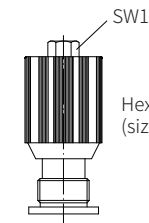
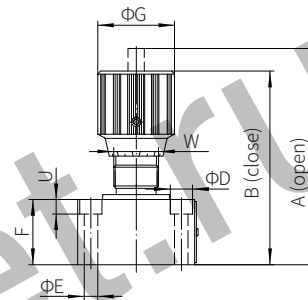
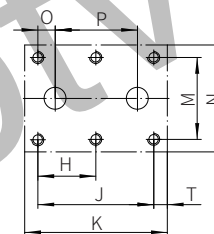
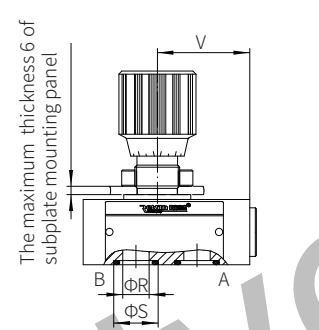


Hexagonal knob 19  
(size 20-30)

| Size | A     | B     | D  | E    | F  | G  | H    | J    | K    | M    |
|------|-------|-------|----|------|----|----|------|------|------|------|
| 6    | 70.5  | 63.5  | 11 | 6.6  | 18 | 24 | -    | 19   | 35   | 28.5 |
| 8    | 82.2  | 74.3  | 11 | 6.6  | 20 | 24 | -    | 35   | 47.5 | 33.5 |
| 10   | 87.2  | 79.2  | 11 | 6.6  | 25 | 29 | -    | 33.5 | 51   | 38   |
| 12   | 100.2 | 88.2  | 11 | 6.6  | 25 | 29 | -    | 38   | 75   | 44.5 |
| 16   | 105   | 93.2  | 14 | 9    | 30 | 38 | 38   | 76   | 93.5 | 54   |
| 20   | 166.6 | 115.6 | 14 | 9    | 45 | 38 | 47.5 | 95   | 111  | 60   |
| 25   | 166.6 | 115.6 | 18 | 11.5 | 45 | 49 | 60   | 120  | 143  | 76   |
| 30   | 171.6 | 160.6 | 20 | 14   | 50 | 49 | 71.5 | 143  | 171  | 92   |

| Size | N    | O    | P    | R    | S    | T    | U  | V    | W       |
|------|------|------|------|------|------|------|----|------|---------|
| 6    | 41.5 | 1.6  | 16   | 5    | 12.2 | 8    | 7  | 11   | M14X1.5 |
| 8    | 46   | 4.5  | 25.5 | 7    | 13.7 | 6.5  | 7  | 13.5 | M18X1.5 |
| 10   | 51   | 4    | 25.5 | 10   | 15.7 | 8.5  | 7  | 16   | M18X1.5 |
| 12   | 57.5 | 4    | 30   | 13   | 21.8 | 18.5 | 7  | 26   | M22X1.5 |
| 16   | 70   | 11.4 | 54   | 16   | 24.5 | 8.5  | 9  | 23.5 | M22X1.5 |
| 20   | 76.5 | 19   | 57   | 22   | 31.5 | 8    | 9  | 34   | M33X2   |
| 25   | 100  | 20.6 | 79.5 | 28.5 | 39.2 | 11   | 11 | 45   | M33X2   |
| 30   | 115  | 23.8 | 95   | 31   | 41   | 15   | 13 | 39   | M33X2   |

Subplate mounting (Model DRVP)



Hexagonal knob 19  
(size 20-30)

| Size | A     | B     | D  | E   | F  | G  | H    | J    | K    | M    |
|------|-------|-------|----|-----|----|----|------|------|------|------|
| 6    | 75.5  | 68.5  | 11 | 6.6 | 23 | 24 | -    | 19   | 41.5 | 28.5 |
| 8    | 86.2  | 78.3  | 11 | 6.6 | 24 | 24 | -    | 35   | 63.5 | 33.5 |
| 10   | 89.2  | 81.2  | 11 | 6.6 | 27 | 29 | -    | 33.5 | 70   | 38   |
| 12   | 107.2 | 95.2  | 11 | 6.6 | 32 | 29 | -    | 38   | 80   | 44.5 |
| 16   | 120   | 108.2 | 14 | 9   | 45 | 38 | 38   | 76   | 104  | 54   |
| 20   | 171.6 | 120.6 | 14 | 9   | 50 | 38 | 47.5 | 95   | 127  | 60   |
| 25   | 179.6 | 128.6 | 18 | 11  | 58 | 49 | 60   | 120  | 165  | 76   |
| 30   | 196.6 | 185.6 | 20 | 14  | 75 | 49 | 71.5 | 143  | 188  | 92   |

| Size | N    | O    | P    | R    | S    | T    | U  | V    | W       |
|------|------|------|------|------|------|------|----|------|---------|
| 6    | 41.5 | 1.6  | 16   | 6    | 12.2 | 16.1 | 8  | 29.5 | M14X1.5 |
| 8    | 46   | 4.5  | 25.5 | 8    | 13.7 | 14.3 | 10 | 42.5 | M18X1.5 |
| 10   | 51   | 4    | 25.5 | 10   | 15.7 | 18.5 | 7  | 45   | M18X1.5 |
| 12   | 57.5 | 4    | 30   | 13   | 21.8 | 21   | 7  | 45.5 | M22X1.5 |
| 16   | 70   | 11.4 | 54   | 17   | 24.5 | 16   | 12 | 54   | M22X1.5 |
| 20   | 76.5 | 19   | 57   | 22   | 31.5 | 30   | 12 | 70   | M33X2   |
| 25   | 100  | 20.6 | 79.5 | 28.5 | 39.2 | 28   | 13 | 83   | M33X2   |
| 30   | 115  | 23.8 | 95   | 31   | 41   | 42.5 | 13 | 87.5 | M33X2   |