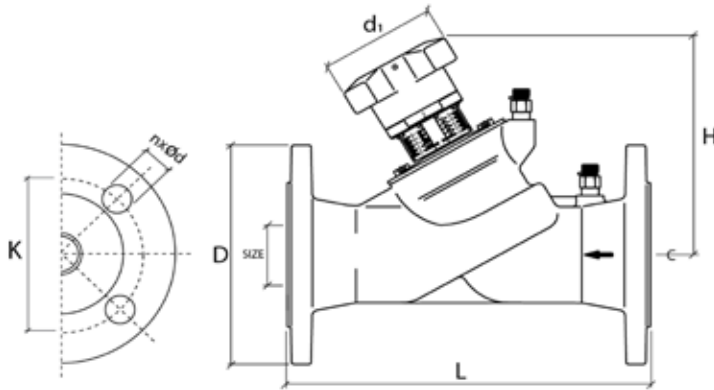


# oventrop

## “Hydrocontrol F” Cast Iron Double Regulating and Commissioning Valves Flanged Connection 3/4" - 12" (DN 20 - DN 300)



### Dimensions in Inches

| Size        | Item no.  | Weight     | L    | H max. | d1   | D    | K    | n x Ød    |
|-------------|-----------|------------|------|--------|------|------|------|-----------|
| DN20 3/4"   | 106 29 46 | 7.5 lbs.   | 5.91 | 4.65   | 2.76 | 4.13 | 2.95 | 0.16x0.55 |
| DN25 1"     | 106 29 47 | 7.8 lbs.   | 6.30 | 4.65   | 2.76 | 4.53 | 3.35 | 0.16x0.75 |
| DN32 1-1/4" | 106 29 48 | 12.8 lbs.  | 7.09 | 5.35   | 2.76 | 5.51 | 3.94 | 0.16x0.75 |
| DN40 1-1/2" | 106 29 49 | 13.7 lbs.  | 7.87 | 5.35   | 2.76 | 5.91 | 4.33 | 0.16x0.75 |
| DN50 2"     | 106 29 50 | 18.6 lbs.  | 9.06 | 5.71   | 2.76 | 6.50 | 4.92 | 0.16x0.75 |
| DN65 2-1/2" | 106 29 51 | 31.7 lbs.  | 11.4 | 7.4    | 4.33 | 7.28 | 5.71 | 0.16x0.75 |
| DN80 3"     | 106 29 52 | 39.8 lbs.  | 12.2 | 8.0    | 4.33 | 7.83 | 6.3  | 0.31x0.75 |
| DN100 4"    | 106 29 53 | 61.3 lbs.  | 13.8 | 9.45   | 6.3  | 8.66 | 7.09 | 0.31x0.75 |
| DN125 5"    | 106 29 54 | 89.9 lbs.  | 15.8 | 11.1   | 6.3  | 9.84 | 8.27 | 0.31x0.75 |
| DN150 6"    | 106 29 55 | 113.9 lbs. | 18.9 | 11.2   | 6.3  | 11.2 | 9.45 | 0.31x0.91 |
| DN200 8"    | 106 29 56 | 361.9 lbs. | 23.6 | 18.4   | 11.8 | 13.4 | 11.6 | 0.47x0.91 |
| DN250 10"   | 106 29 57 | 431.2 lbs. | 28.7 | 18.9   | 11.8 | 15.9 | 14.0 | 0.47x1.1  |
| DN300 12"   | 106 29 58 | 581.9 lbs. | 33.5 | 20.3   | 11.8 | 18.1 | 16.1 | 0.47x1.1  |

### Installation Notes

When installing the valves, it is to be observed that the direction of flow conforms with the arrow on the valve body and that the valve is installed with a minimum of 3 D (3 x nominal pipe diameter) of straight pipe at the valve inlet and of 2 D (2 x nominal pipe diameter) of straight pipe at the valve outlet.

The double regulating and commissioning valves may be installed in either the supply or the return pipe.



### Product Specification

Oventrop double regulating and commissioning valves “Hydrocontrol F” are installed in the pipework of central hot water heating and cooling systems and serve to achieve a hydronic balance between the various circuits of the system.

The balance is achieved by a presetting with memory position. The calculated flow rate or pressure loss for each individual pipe can be preset centrally and regulated precisely. The required values of presetting can be obtained from the flow charts. All intermediate values are infinitely adjustable. The selected presetting can be read off two scales. The Oventrop double regulating and commissioning valves have two threaded ports which are equipped with the pressure test points for measuring the differential pressure.

### Specifications:

Maximum working temperature: 300°F  
Maximum working pressure: 235 psi  
Temperature range: 15°F to 300°F

Valve bodies manufactured from cast iron to ASME/ANSI B16.5 and flanged to 125 lb. standards. Valve body made of cast iron (GG 25 EN-GJL-250), hole circle of the flanged connection according to ANSI 150.

Bonnet, stem and disc made of bronze/dezincification resistant brass.  
Disc with PTFE seal.  
Double EPDM O-ring stem seal.

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**Hydrocontrol F—Flanged Connection—3/4 to 12 inch valves  
Cv Values for Various Handwheel Settings**

| Presetting or Handwheel Turns | 3/4" | 1"   | 1- 1/4" | 1- 1/2" | 2"    | 2- 1/2" | 3"     | 4"     | 5"     | 6"     | 8"     | 10"     | 12"     |
|-------------------------------|------|------|---------|---------|-------|---------|--------|--------|--------|--------|--------|---------|---------|
| 0.5                           | 0.26 | 0.97 | 0.97    | 1.94    | 3.83  | 2.21    | 2.67   | 3.96   | 6.40   | 6.50   | -      | -       | -       |
| 1.0                           | 0.49 | 1.55 | 2.01    | 3.80    | 6.70  | 4.19    | 5.12   | 9.94   | 14.48  | 17.70  | -      | -       | -       |
| 1.5                           | 0.73 | 2.13 | 3.12    | 5.55    | 8.42  | 6.51    | 8.14   | 16.28  | 22.56  | 29.37  | -      | -       | -       |
| 2.0                           | 0.97 | 2.72 | 4.22    | 7.21    | 11.10 | 11.63   | 13.78  | 21.51  | 30.93  | 41.00  | 56.86  | 81.4    | 232.56  |
| 2.5                           | 1.21 | 3.29 | 5.33    | 8.59    | 13.45 | 17.44   | 21.69  | 27.91  | 40.41  | 62.70  | 72.09  | 98.84   | 290.70  |
| 3.0                           | 1.45 | 3.86 | 6.43    | 10.10   | 15.59 | 27.91   | 30.35  | 41.16  | 55.52  | 110.49 | 97.67  | 127.91  | 360.47  |
| 3.5                           | 1.79 | 4.63 | 7.57    | 11.59   | 18.09 | 39.53   | 40.70  | 60.47  | 73.66  | 157.50 | 132.56 | 174.42  | 441.86  |
| 4.0                           | 2.33 | 5.51 | 8.67    | 13.23   | 21.33 | 50.58   | 52.03  | 83.72  | 94.24  | 194.33 | 175.58 | 226.74  | 558.14  |
| 4.5                           | 2.95 | 6.51 | 9.85    | 14.99   | 23.90 | 60.47   | 64.19  | 108.14 | 120.41 | 236.80 | 239.53 | 313.95  | 662.79  |
| 5.0                           | 3.59 | 7.72 | 10.99   | 16.87   | 26.40 | 70.93   | 75.12  | 130.23 | 149.13 | 277.80 | 302.67 | 413.95  | 767.44  |
| 5.5                           | 4.22 | 8.65 | 12.33   | 19.33   | 28.84 | 81.41   | 87.73  | 153.29 | 184.53 | 316.74 | 372.09 | 511.63  | 872.09  |
| 6.0                           | 4.85 | 9.19 | 13.60   | 22.24   | 31.26 | 90.70   | 101.16 | 172.09 | 215.47 | 349.30 | 445.35 | 606.98  | 982.56  |
| 6.5                           | 5.30 | 9.53 | 14.90   | 24.30   | 32.92 | 98.84   | 113.43 | 190.73 | 253.55 | 379.88 | 555.58 | 705.81  | 1069.77 |
| 7.0                           | 5.55 | 9.74 | 15.87   | 25.93   | 34.51 | 104.65  | 124.13 | 208.15 | 283.90 | 413.49 | 592.44 | 793.02  | 1151.16 |
| 7.5                           | -    | -    | 16.63   | 27.29   | 35.91 | 109.88  | 133.14 | 220.98 | 311.80 | 444.19 | 650.00 | 883.72  | 1244.19 |
| 8.0                           | -    | -    | 17.28   | 28.50   | 37.21 | 113.95  | 142.09 | 233.72 | 340.70 | 470.12 | 718.60 | 976.74  | 1325.58 |
| 8.5                           | -    | -    | 17.93   | 29.26   | 38.44 | -       | -      | -      | -      | -      | 767.44 | 1034.88 | 1406.98 |
| 9.0                           | -    | -    | 18.57   | 29.97   | 39.60 | -       | -      | -      | -      | -      | 842.44 | 1084.88 | 1500.00 |
| 9.5                           | -    | -    | 19.22   | 30.63   | 40.70 | -       | -      | -      | -      | -      | 881.98 | 1139.53 | 1569.77 |
| 10.0                          | -    | -    | 19.86   | 31.26   | 41.86 | -       | -      | -      | -      | -      | 894.19 | 1195.35 | 1651.16 |
| 10.5                          | -    | -    | -       | -       | -     | -       | -      | -      | -      | -      | 906.98 | 1255.81 | 1720.93 |
| 11.0                          | -    | -    | -       | -       | -     | -       | -      | -      | -      | -      | 918.60 | 1302.33 | 1779.07 |
| 11.5                          | -    | -    | -       | -       | -     | -       | -      | -      | -      | -      | 931.86 | 1348.84 | 1825.58 |
| 12.0                          | -    | -    | -       | -       | -     | -       | -      | -      | -      | -      | 947.09 | 1395.35 | 1860.47 |

**“Hydrocontrol” Valve Accessories**



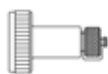
Set of 2 pressure test points  
Item 106 02 81



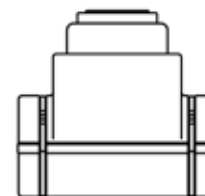
Extension piece for pressure test points  
40mm Item 168 83 95  
80mm Item 106 02 95



Fill and drain ball valve 1/4"  
Item 106 01 91



Measuring adapter  
for fill and drain ball valve  
Item 106 02 98



Insulation Shell  
for “Hydrocontrol F” & “G”

| Size        | Item no.  |
|-------------|-----------|
| DN20 3/4"   | 106 25 81 |
| DN25 1"     | 106 25 82 |
| DN32 1-1/4" | 106 25 83 |
| DN40 1-1/2" | 106 25 84 |
| DN50 2"     | 106 25 85 |
| DN65 2-1/2" | 106 25 86 |
| DN80 3"     | 106 25 87 |
| DN100 4"    | 106 25 88 |
| DN125 5"    | 106 25 89 |
| DN150 6"    | 106 25 90 |



Flow meter  
OV-DMC 2  
Item 106 91 77

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