

Job Name: \_\_\_\_\_

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

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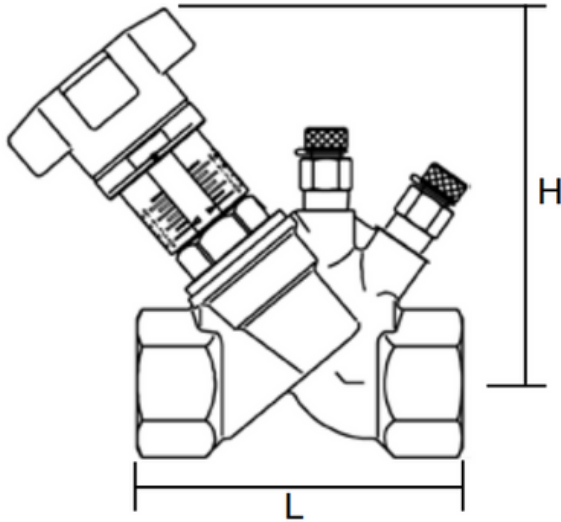
Spec Section: \_\_\_\_\_

Job Location: \_\_\_\_\_

Engineer/Architect: \_\_\_\_\_

\_\_\_\_\_

Approval: \_\_\_\_\_ Date: \_\_\_\_\_



**Specification**

Oventrop double regulating and commissioning valves “Hydrocontrol R” 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.

Maximum working temperature: 300°F

Maximum working pressure (F-NPT): 362 psi

Maximum working pressure (sweat): 235 psi

**Coil Kit Dimensions in Inches**

Dimension	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
L (F-NPT)	3.15	3.31	3.84	4.33	4.72	5.91
L (sweat)	3.51	3.81	4.31	5.03	5.57	6.60
H	4.49	4.57	4.69	5.35	5.43	5.83

**Using balancing valve for isolation:**

The hand wheel can be limited to any setting. This can be done by inserting a 3 mm allen key into the hole on the top of the handle and turning clockwise until it stops. Once this has been done, the valve can be closed down for isolation of the coil without losing the balanced setting. When the valve is reopened, the handle will be turned until it reaches the preset limit.

**Installation Notes**

When installing the hydrocontrols, 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.



Hydrocontrol valves can be installed in any orientation (e.g. vertical or horizontal). It is recommended to take caution if installing the valve with the test ports pointing down, as this could lead to clogging of the test ports.

“Hydrocontrol R” Manual Balancing Valve		
Size	Recommended Flow range [GPM]	Connection ends
1/2"	0.4 - 4.2	FNPT x FNPT Sweat x Sweat
3/4"	0.6 - 6.2	
1"	1.2 - 9.6	
1 1/4"	1.6 - 21	
1 1/2"	3.2 - 30	
2"	3.9 - 42	

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Item Number (F-NPT)	1061004	1061006	1061008	1061010	1061012	1061016
Item Number (sweat)	1060551	1060552	1060553	1060554	1060555	1060556

**"Hydrocontrol R"**  
Sweat or Thread Connection  
1/2" to 2" Valves

**Cv Values for Various Handwheel Settings**

Presetting or Handwheel Turns	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
0.5	0.40	0.58	1.08	1.20	3.09	3.13
1.0	0.53	0.84	1.77	2.40	4.80	5.88
1.5	0.66	1.08	2.42	3.37	6.67	8.31
2.0	0.84	1.33	3.00	4.67	8.53	10.66
2.5	1.14	1.57	3.59	5.91	10.12	13.55
3.0	1.56	1.86	4.29	6.98	11.65	16.55
3.5	1.98	2.37	5.14	7.97	13.02	19.01
4.0	2.38	3.00	6.00	8.88	14.37	21.51
4.5	2.77	3.63	6.92	10.06	16.05	24.07
5.0	3.14	4.24	7.81	11.27	17.74	26.66
5.5	3.56	4.97	8.51	12.44	20.17	28.49
6.0	3.95	5.69	9.20	13.60	22.62	30.04
6.5	4.33	6.33	9.78	14.88	24.36	32.27
7.0	4.51	6.64	10.34	16.17	26.10	34.20
7.5	-	-	-	17.47	27.47	36.16
8.0	-	-	-	18.73	28.86	38.06
8.5	-	-	-	19.97	29.59	40.35
9.0	-	-	-	21.14	30.34	42.65
9.5	-	-	-	22.01	31.16	44.13
10.0	-	-	-	22.62	31.99	45.09

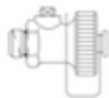
**"Hydrocontrol" Valve Accessories**



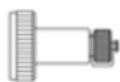
Set of 2 pressure test points  
Item 106 02 81



Extension piece for pressure test points  
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 R"

Size	Item no.
DN15 1/2"	106 00 81
DN20 3/4"	106 00 82
DN25 1"	106 00 83
DN32 1 1/4"	106 00 84
DN40 1 1/2"	106 00 85
DN50 2"	106 00 86



Flow meter  
OV-DMC 2  
Item 106 91 77