

Function:

The Oventrop “Hydrocontrol MTR/MPR” are double regulating and commissioning valves with integrated metering station and “classic” measuring technique.

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

The hydronic balance is achieved by adjusting the double regulating and commissioning valve during flow measurement at the metering station.

Hydronic balance can also be achieved at the valves by use of the presetting with memory position.

The “Hydrocontrol MTR/MPR” may be installed in either the supply or the return pipe.

When installing the valve, it must be ensured that the direction of flow conforms to the direction of the arrow on the valve body and that the valve is installed with a minimum of 5 D (5 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.

In cooling systems using mixtures of water and glycol, correction factors have to be taken into consideration.

Advantages:

- the location of the functional components on one level allow a simple assembly and easy operation
- constant k_v value of the metering station for all presetting values allow a simple and quick regulation
- only one valve for 3 functions:
 - presetting
 - measuring
 - isolating
- the supply and the return pipe can be marked by use of the colour rings supplied with each valve
- low pressure loss (oblique pattern)
- infinitely adjustable presetting, exact control of the flow rate via the metering station
- connection threads according to EN 10226, suitable for Oventrop compression fittings (1027151-58) for copper pipes up to a max. diameter of 22 mm and Oventrop composition pipe “Copipe”
- exact measurement of pressure loss which is proportional to the flow rate via the integrated metering station
- k_v value of the integrated metering station displayed on the affixed identification plate

Tender specification:

Double regulating and commissioning valve PN 25 (water pH value 6.5-10), both ports with female thread (“Hydrocontrol MTR”) according to EN 10226 or press connection (“Hydrocontrol MPR”) and integrated metering station, not suitable for steam. Colour rings for marking of supply and return pipe, oblique pattern with secured, infinitely adjustable fine presetting controllable at any time; valve body and bonnet made of bronze, disc, stem and metering station made of brass resistant to de-zincification (DZR), disc with PTFE seal, maintenance-free stem seal due to double O-ring, all functioning components on one level, installation in the supply or the return pipe.

Max. operating temperature t_s : 150°C (press connection: 120°C)

Min. operating temperature t_s : -20 °C

Max. operating pressure p_s : 25 bar (PN 25)

(press connection: 16 bar PN 16)

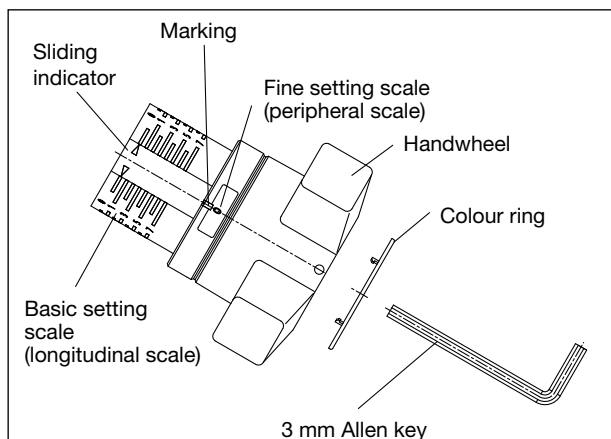


“Hydrocontrol MTR”

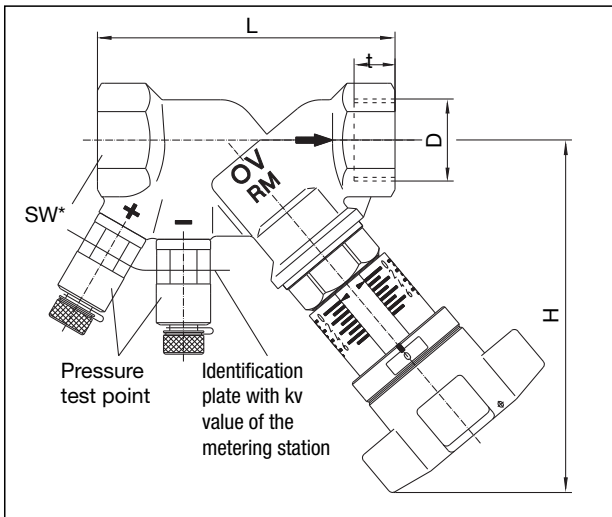
DN	Item no. “MTR”	Item no. “MPR”	k_{vs}	k_v value of integrated metering station
15 LF	1060464	1060651	0.55	0.55
15 MF	1060434	1061651	1.15	1.2
15 HF	1060404	1060451	2.1	2.2
15 HF		1060452	2.1	2.2
20	1060406	1060454	3.7	4.25
25	1060408	1060456	6.1	8.6
32	1060410	1060458	12.5	15.9
40	1060412	1060460	18.1	23.4
50	1060416	1060462	30.5	47.0

Presetting:

1. The presetting value of the valve is set by turning the handwheel.
 - a. The display of the basic setting is displayed by the longitudinal scale together with the sliding indicator. Each turn of the handwheel is represented by a line on the longitudinal scale.
 - b. The display of the fine setting is shown by the peripheral scale on the handwheel together with the marking. The subdivisions of the peripheral scale correspond to 1/10th of a turn of the handwheel.
2. Limitation of the set value of presetting by turning the inner adjustment stem clockwise up to the limit stop. This can be done by using the long end of a 3 mm Allen key.

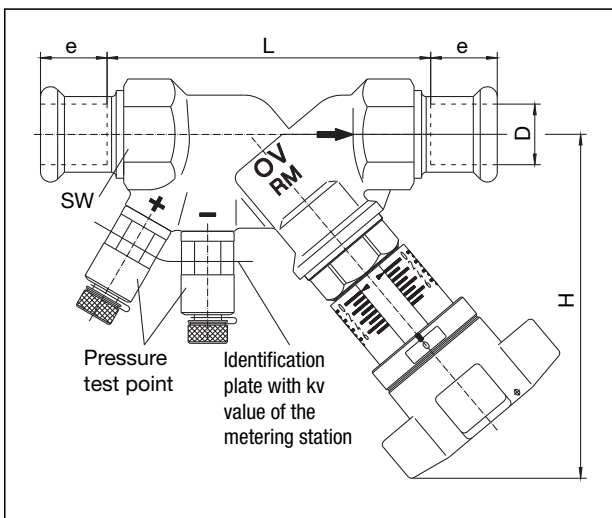


Double regulating and commissioning valves with integrated metering station



DN	D EN 10226	t	L	H	SW*
15	Rp 1/2	13.2	87	114	27
20	Rp 3/4	14.5	96	116	32
25	Rp 1	16.8	102	119	41
32	Rp 1 1/4	19.1	119	136	50
40	Rp 1 1/2	19.1	132	138	55
50	Rp 2	25.7	163	148	70

Dimensions



DN	D	e	l	H	SW*
15	15	18	94	114	27
15	18	20	94	114	27
20	22	24	103	116	32
25	28	27	109	119	41
32	35	32	128	136	50
40	42	37.5	141	138	55
50	54	42.5	172	148	70

Dimensions

Accessories sets:

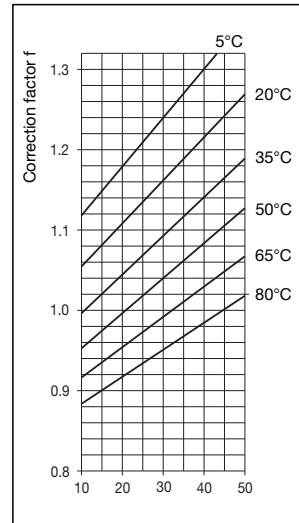
- 1 pressure test point extension (80 mm)
- 1 pressure test point extension (40 mm)
- 1 stem extension (35 mm)
- Lead sealing set (10-fold)
- Locking set (1-fold)

- Item no. 1060295
- 1688295
- 1688296
- 1089091
- 1060180

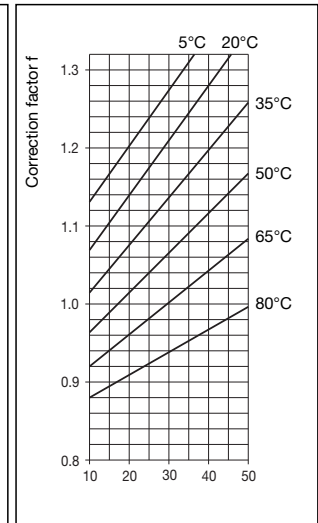
*SW = spanner size

Correction factors for mixtures of water and glycol:

When antifreeze liquids are added to the heating water, the pressure loss obtained from the chart must be multiplied by the correction factor f.



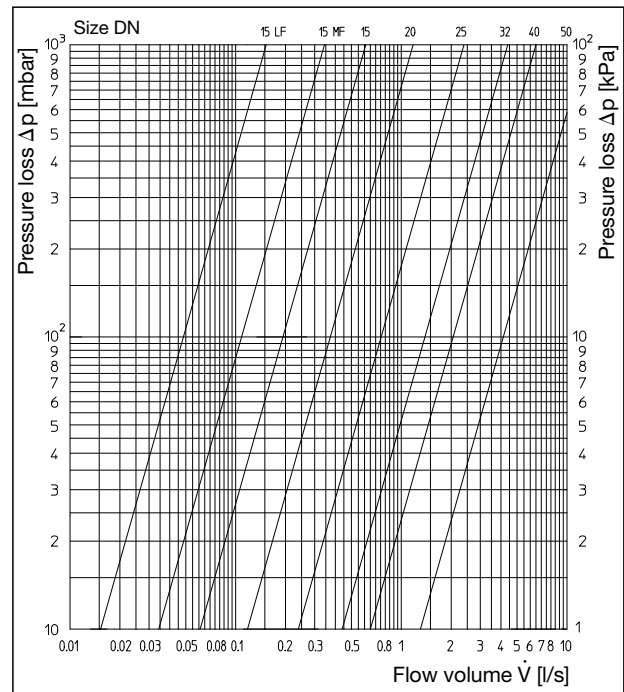
Weight proportion ethylene glycol [%]



Weight proportion propylene glyco [%]

Flow charts:

The flow charts are valid for installation of the double regulating and commissioning valves in the supply and the return pipe, provided that the direction of flow conforms to the direction of the arrow on the valve body.

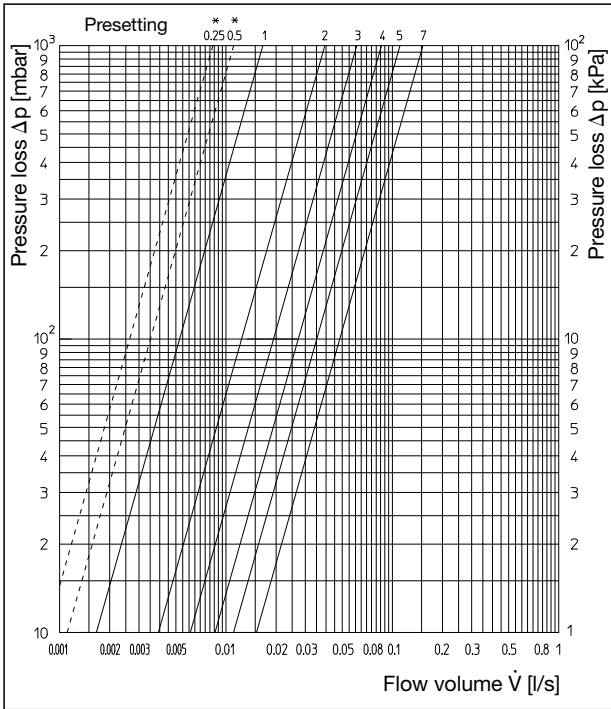


Metering station

DN	15LF	15MF	15HF	20	25	32	40	50
k_v	0.55	1.20	2.20	4.25	8.60	15.90	23.40	47.00

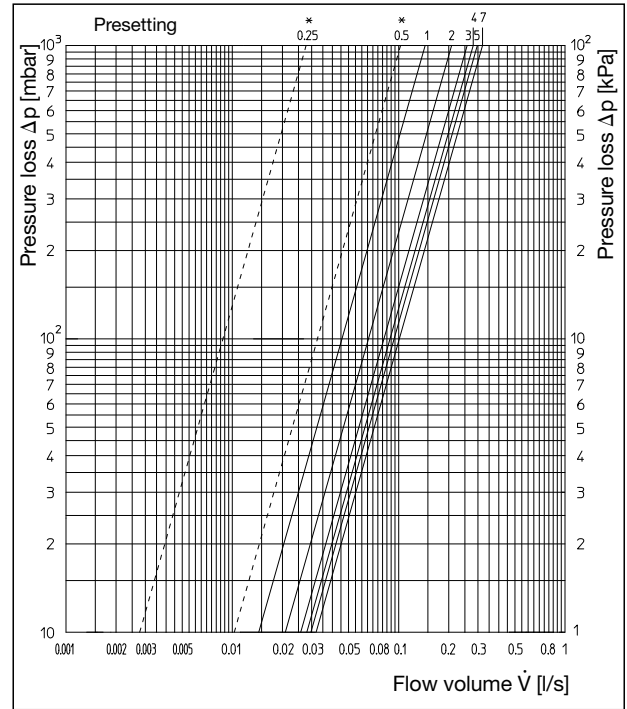
k_v values of the integrated metering station

DN 15 LF



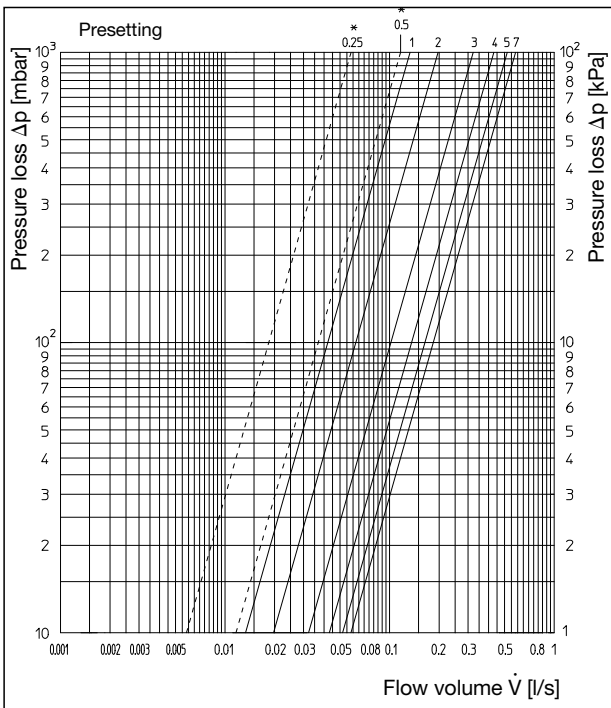
Avoid presetting < 1, to achieve a sufficient high flow accuracy.

DN 15 MF



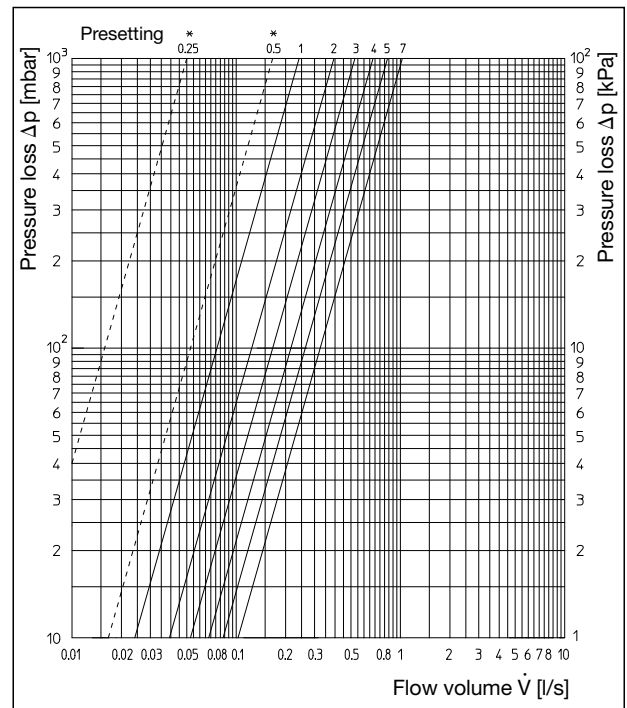
Avoid presetting < 1, to achieve a sufficient high flow accuracy.

DN 15 HF



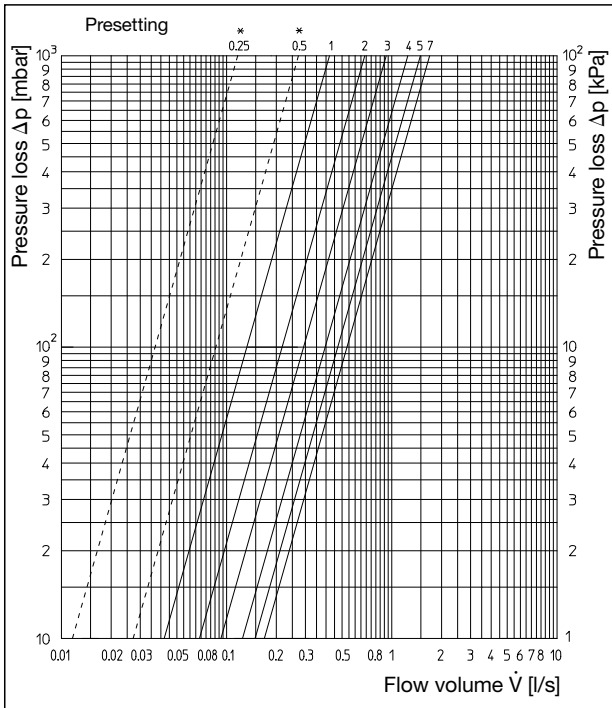
Avoid presetting < 1, to achieve a sufficient high flow accuracy.

DN 20



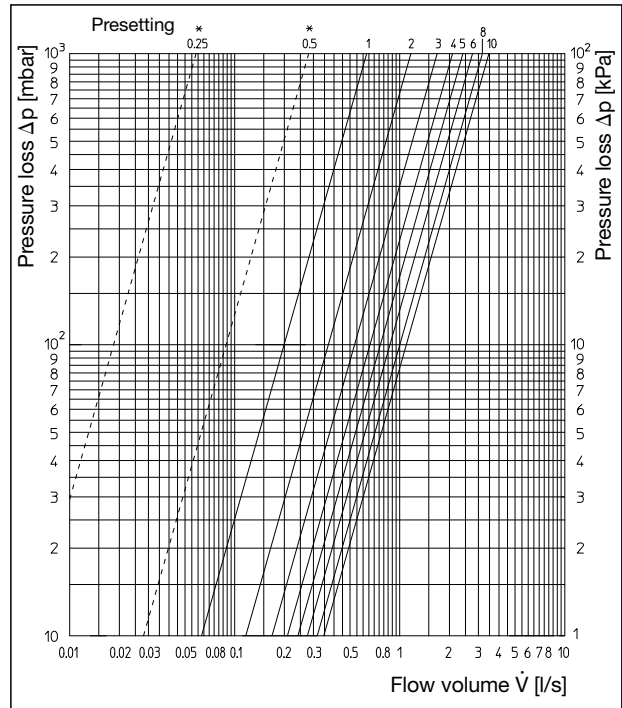
Avoid presetting < 1, to achieve a sufficient high flow accuracy.

DN 25



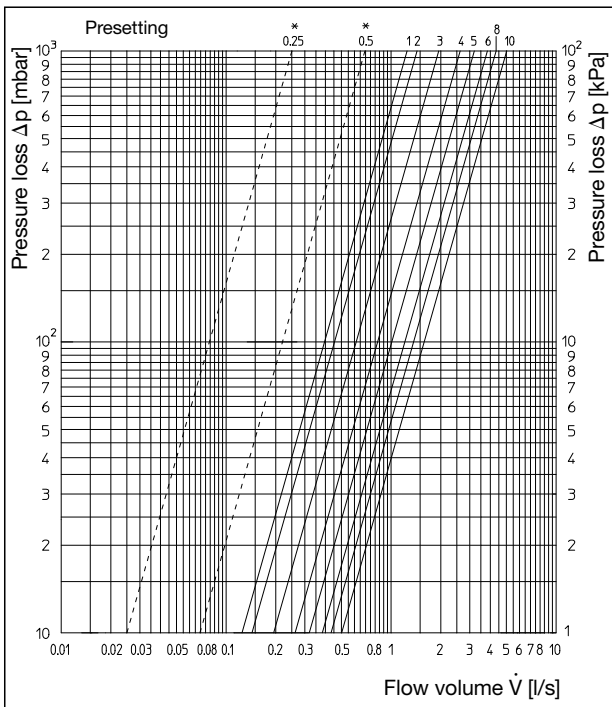
Avoid presetting < 1, to achieve a sufficient high flow accuracy.

DN 32



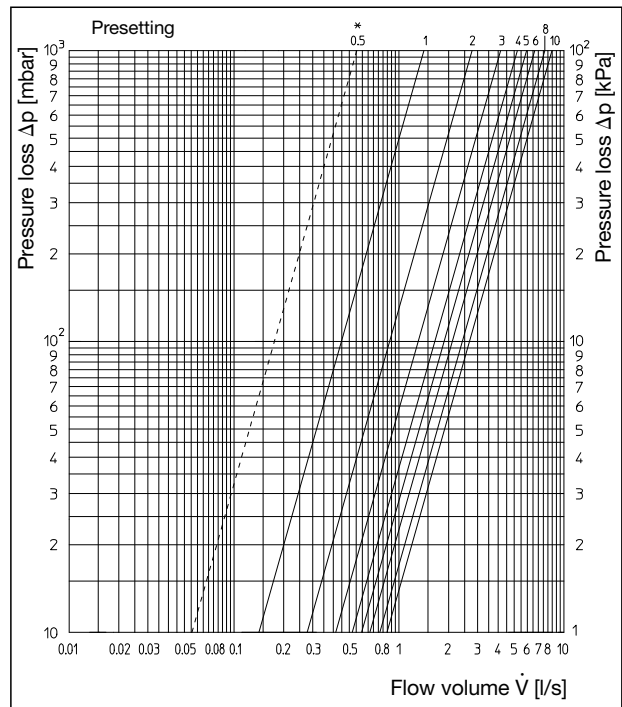
Avoid presetting < 1, to achieve a sufficient high flow accuracy.

DN 40



Avoid presetting < 1, to achieve a sufficient high flow accuracy.

DN 50



Avoid presetting < 1, to achieve a sufficient high flow accuracy.

Subject to technical modification without notice.

Product range 3
 ti 224-1/10/MW
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