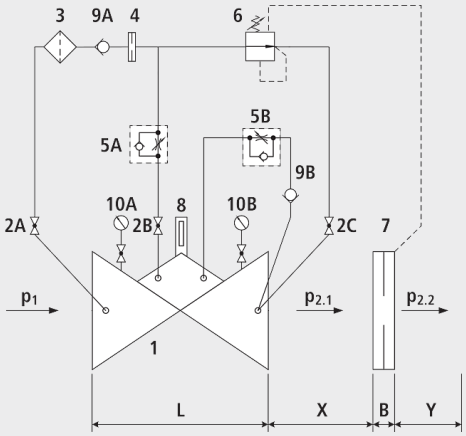
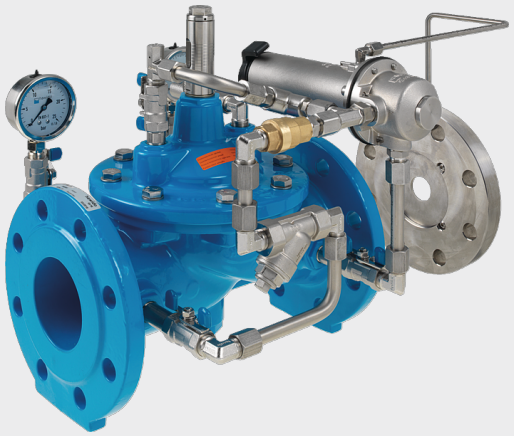
Flow limitation valve MBV with non-return function

1301





Components

- 1: Main valve
- 2: Ball valve (A, B, C, D)
- 3: Filter
- 4: Orifice
- 5: Throttle check valve (A, B)
- 6: Control valve
- 7: Differential pressure orifice plate
- 8: Optical position indicator (optional: Electrical position indicator, opening limiter)
- 9: Check valve (A, B)
- 10: Manometer with ball valve (A, B)
- B: DN 40 to DN 150: 22 mmDN 200 to DN 250: 27 mmDN 300 to DN 400: 29 mm
- X: 5 x DN line
- Y: 3 x DN line

Physical characteristics

- The main valve is a hydraulically operating diaphragm valve. The work energy is the inherent medium.
- Most valve types operate purely hydraulically without any foreign energy.

Application

- To use in drinking water systems (other media after consultation)
- Limitation of the inflow from a pressure zone into a lower pressure zone
- Constantly maintaining a filter flow
- The supply to a secondary network necessitates a limitation of the flow, so as to not endanger, for example, the extinguishing reservoir of the primary network (in combination with a reduction in pressure).

Mode of operation

- The flow–control valve completely hydraulically ensures a pre–determined maximum flow, irrespective of any changes in the operating pressure. The nominal flow rate can be progressively varied up to ±15% via the control valve. If the inlet pressure can fall below the outlet pressure, the backflow prevention function prevents any flowback of the water.

Product information

- To calculate the dimensions of the valve please refer to the following information:
- Maximum and minimum inlet pressure (static and dynamic pressure ratios)
- Required flow rate
- Permissible loss of pressure incl. measuring orifice (usually 0.5 bar over the valve and orifice plate)
- Available line diameters and lengths
- Construction of the valve (straight or angle design)
- For the calculation basis, information on the loss of pressure and the characteristic values of the valve, please refer to the end of Chapter E.

Design

- Design according to DIN EN 1074
- Construction length acc. to DIN EN 558
- Flange mass according to DIN 1092-2, to PN 25 DN 300
- Pressure levels: PN 10 or PN 16 to DN 300, PN 25 to DN 200, higher pressures on request.
- Nominal widths DN 50, DN 80, DN 100 and DN 150 available in angular design
- Nominal widths 1 ½" and 2" with threaded connection (female thread)
- Medium temperature up to 40°C

Installation and assembly

- Shut–off valves should be fitted on both sides of the valve and a dirt trap should be installed on the inlet side of the valve. Depending on the installation situation, a mounting/dismounting adapter and an aeration and ventilation system should be provided.
- The orifice plate must be installed after the valve. It is recommended that the following measurements are taken into consideration:
- X = 5 x DN, distance between the valve and the orifice plate in a straight line
- Y = 3 x DN, distance after the orifice plate and the shut–off component, in a straight line

Vantages

- Maintenance-free, non-rusting valve seat
- Pressed-in seat
- EWS-coating according to RAL GSK

	DN	PN (bar)	L (mm)	weight (kg)
1301007000	1 1/2"	16	210	11.000
1301008000	2"	16	210	11.000
1301040000	40	16	200	15.750
1301050000	50	16	230	16.250
1301065000	65	16	290	21.300
1301080000	80	16	310	27.400
1301100000	100	16	350	35.400
1301125000	125	16	400	51.500
1301150000	150	16	480	76.000
1301200000	200	10	600	114.600
1301200016	200	16	600	114.600
1301250000	250	10/16	730	247.000
1301300000	300	10/16	850	358.000