



Application:

Oventrop bypass mixing valve DN 25 for potable water softening installations PN 10 for industry, trade and domestic use. Max. water temperature 90 °C, ACS certified.

Description:

Bypass mixing valves are automatic mixing valves for potable water softening installations. They replace the usual bypass pipe and are installed at the inlet and outlet of the water softener.

The S-type couplings and the straight coupling allow for an easy connection to different connections of the water softeners.

Once it has been set, the bypass mixing valve automatically maintains the hardness of the mixed water irrespective of consumption and pressure variations. The hardness of the mixed water is only set once, during installation. If the hardness of the untreated water changes significantly (e.g. if the water authority supplies a different type of water), it is of course necessary to readjust not only the water softener but also the bypass mixing valve.

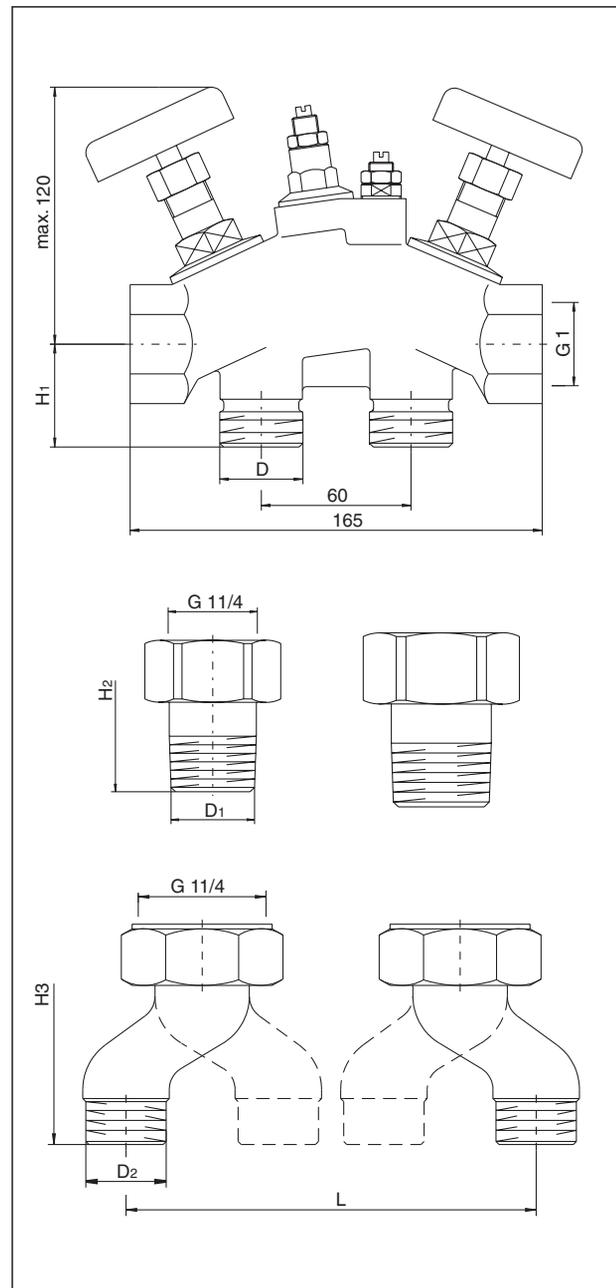
The body of the bypass mixing valve is made of corrosion resistant brass according to DIN 50930-6. All other components are made of brass, plastic and stainless steel. The soft seal is made a special buna N composition. The valve does not feature a dead zone.

Models:

Item no.:

| | | | | | | | |
|---|------|---|--------------------|--|--|--|---------|
| Bypass mixing valve for hose connection with collar nut G 1 | | | | | | | |
| DN 25 | G 1 | x | G 1 (male thread) | | | | 6101008 |
| Bypass mixing valve without coupling for collar nut G 1¼ | | | | | | | |
| DN 25 | G 1 | x | G 1¼ (male thread) | | | | 6101051 |
| Straight coupling | | | | | | | |
| DN 25 | G 1¼ | x | R 1 | | | | 6100508 |
| S-type coupling | | | | | | | |
| DN 20 | G 1¼ | x | G ¾ | | | | 6100606 |
| DN 25 | G 1¼ | x | G 1 | | | | 6100608 |

Note: For the bypass pipes of industrial potable water softeners Oventrop supplies bypass mixing valves DN 32 and DN 50 for which separate technical information sheets are available.



Dimensions

| Size | D | D ₁ EN 10226-1 | D ₂ | H ₁ | H ₂ | H ₃ | L max. |
|------|------|------------------------------|----------------|----------------|----------------|----------------|--------|
| G 1 | G 1 | - | - | 37 | - | - | - |
| | G 1¼ | R 1 | - | 37 | 78 | - | - |
| | G 1¼ | - | G ¾ | 37 | - | 94 | 110 |
| | G 1¼ | - | G 1 | 37 | - | 127 | 130 |

Dimensions

Function and setting:

The arriving untreated water enters the bypass mixing valve via connection (1) and passes through connection (2) to the water softener.

The water softened to 0° dH (German hardness) leaves the water softener via connection (3) and passes through connection (4) to the water supply pipe with the isolating valve in the open position. When water consumption is low, a certain quantity of untreated water (depending on the setting) is added to the completely softened water via the bypass valve (9).

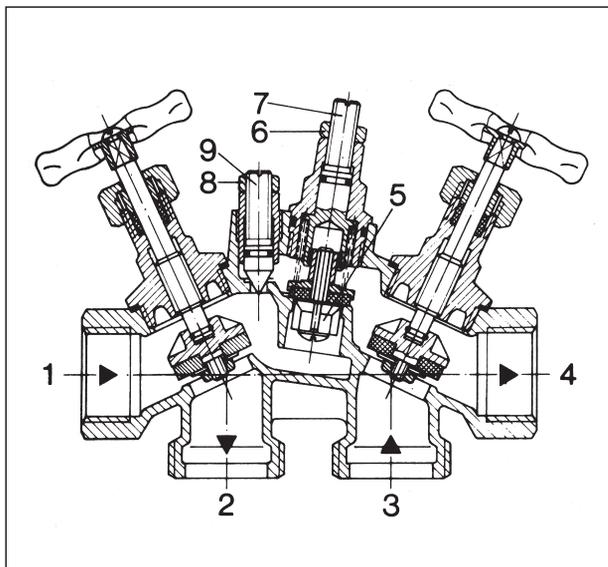
With a higher water consumption (about 300 l/h or above), the pressure loss of the water softener between connection (1) and connection (4) causes a differential pressure lifting the valve disc (5). Depending on the setting, a larger or smaller quantity of untreated water is now added to the softened water.

The setting of the required hardness (normally 8.5° dH) requires an adjustment which has to be carried out under working conditions as follows:

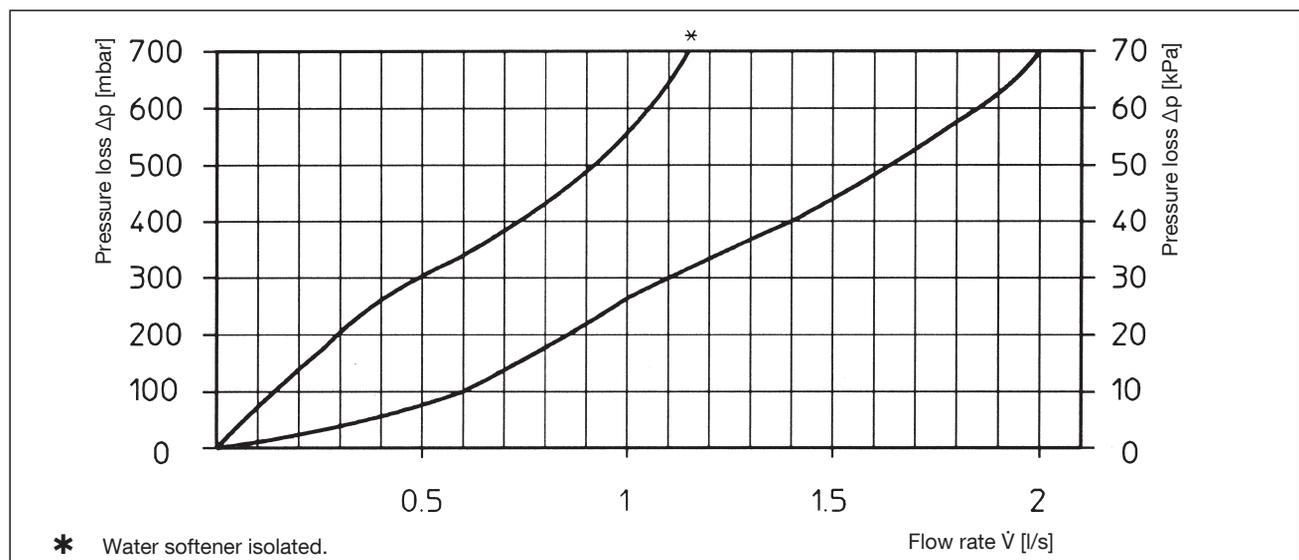
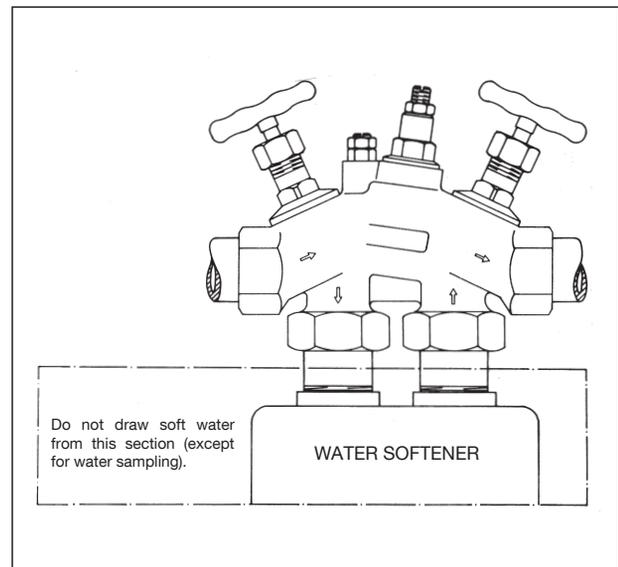
First of all, the main valve (5) is closed by loosening the counternut (6) and by screwing the stem (7) into the body until stop. After having unscrewed the counternut (8), the bypass valve (9) is adjusted in such a way that the required water hardness is still reached for 10-20% of the max. water consumption (tap of wash basin in the open position). Now tighten the counternut (8) to lock the setting.

With a flow rate of about 0.42 l/s (tap of bathtub in the open position), the main valve (5) is now opened by turning the stem (7) to the left until the required water hardness is reached again. Setting is locked by tightening the counternut (6).

With the isolating valves being closed, the water softener may be removed for repair or maintenance of the bypass mixing valve. Under these conditions, untreated water flows from the inlet (1) directly to the outlet (4) via the bypass mixing valve. Because of the smaller diameter of the flow path of the bypass pipe, the flow capacity is reduced and no longer corresponds to the value of the valve.



Cut illustration



Pressure loss of the valve depending on the flow rate

Subject to technical modifications without notice.

Product range 8
ti 7-EN/10/MW
Edition 2017