

Application:

Oventrop pump ball valves “Optibal P” made of nickel plated brass with or without check valve are used in central heating systems with circulation pump.

The pump flange of the pump ball valve “Optibal P” is directly connected to the male thread of the circulation pump with the help of a collar nut.

Unwanted gravity circulation is prevented by the installation of a pump ball valve “Optibal P” with check valve at the pump inlet.

Note:

When the circulation pump is switched off, a low gravity circulation depending on the circulation pressure is still possible within the heating system as the check valve is not tight sealing.

Function:

The pump ball valves are opened/closed by turning the handle by 90°. The position of the ball is indicated by the position of the handle which moves parallel to it. The extended plastic handle allows for the insulation of the pump ball valves with standard insulation material.

As for the “Optibal P” pump ball valves with check valve, gravity circulation is achieved by turning the handle to 45° position.

Advantages:

- installation with integrated check valve at the inlet of the circulation pump, thus avoiding dry running of the pump
- extended plastic handle allowing for a continuous insulation, no stem extension required
- operating handle outside the insulation
- check valve lockable for gravity circulation
- blow-off proof stem
- ball valves may subsequently be equipped with a thermometer
- suitable for water and glycol mixtures with a glycol proportion up to 50 %

Technical data:

Fluid: Heating or cooling water
 Max. operating pressure p_s : 10 bar (PN 10)
 Operating temperature t_s : -10 °C up to +120 °C,
 max. short-term starting temperature 160 °C,
 with press connection max. 150 °C

Attention: Prevent formation of ice as it can destroy the pipework and valve.

Construction:

One-piece body made of nickel plated brass, plastic handle, ball made of chrome plated brass with PTFE seats, brass stem with double EPDM O-ring seal.

Connections: one port pump flange, one port female thread according to DIN EN 10226 or press connection

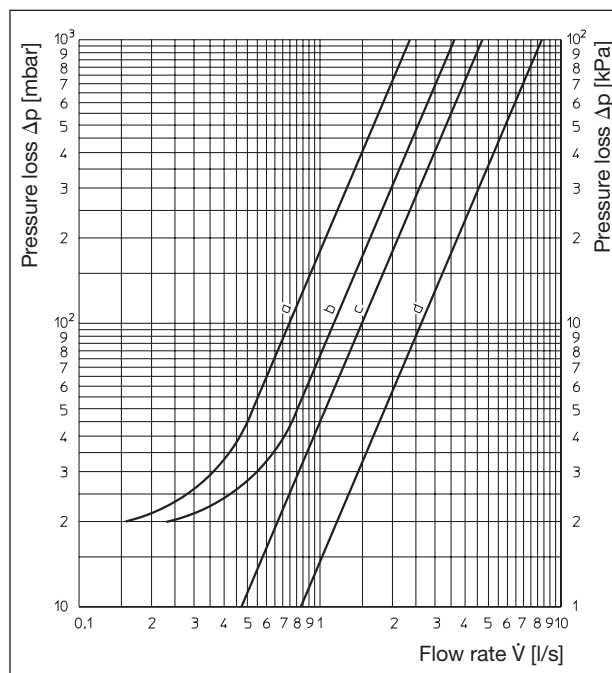
Model with check valve:

Opening pressure of the check valve: about 20 mbar

Setting to gravity circulation by turning the handle to 45° position.



“Optibal P”



Flow chart

with check valve

a. 1078171 (Rp 1 x G 1½) and 1078173 (Rp 1¼ x G 1½)

b. 1078172 (Rp 1¼ x G 2)

without check valve

c. 1078371 (Rp 1 x G 1½) and 1078373 (Rp 1¼ x G 1½)

d. 1078372 (Rp 1¼ x G 2)

Female thread D	Flange D1	k_{VS} with check valve	k_{VS} without check valve
Rp 1	G 1½	8.5	17
Rp 1¼	G 2	13	33
Rp 1¼	G 1½	8.5	30

Dimensions “Optibal P” with female thread:

Item no.	DN	A	D	D ₁	H	L	SW*
10781/8371	25	80	Rp 1	G 1½	77	77	41
10781/8372	32	80	Rp 1¼	G 2	79	86	50
10781/8373	32	80	Rp 1¼	G 1½	79	86	50

Dimensions “Optibal P” with press connection:

Item no.	DN	A	d	D ₁	H	L	SW*	t
10781/8361	25	80	Ø 28	G 1½	77	107.5	41	27
10781/8362	32	80	Ø 35	G 2	79	122.5	50	32

*SW = Spanner size

Note regarding press connection:

For the direct connection of copper pipe according to EN 1057 and stainless steel pipe “NiroSan”.

Pressing must be carried out to tighten the connection.

Only use press bits with the original contours SANHA, Geberit-Mapress or Viega in corresponding size.

Processing of the press connections see separate technical information “Cofit P - Press connection”, product range 13.

Accessories:

Insulation shells:

For pump ball valves and ball valves with female thread.

The collar nut of the pump ball valve is located inside the insulation shell. The double insulation shells made of anthracite coloured expanded polypropylene are easy to use and can be reused.

Building material class B2 according to DIN 4102.

Thermal conductivity 0,035 W/mK.

Meet the requirements of the German Energy Saving Directive according to appendix 5, table 1, line 5.

Dimensions of the insulation shells for pump ball valve “Optibal”:

Item no.	DN	D	L
1078194	25	Ø 94	99
1078195	32	Ø 114	111

“Optibal” ball valve, both ports with female thread

Rp 1 DN 25 Item no. 1078708

Rp 1¼ DN 32 Item no. 1078710

Collar nut made of brass, set of 2 pieces

G 1½ for DN 25 Item no. 1350450

G 2 for DN 32 Item no. 1350470

Ring gaskets for pump flange, sets

G 1½ for DN 25 (set = 10 pieces) Item no. 1359552

G 2 for DN 32 (set = 4 pieces) Item no. 1359554

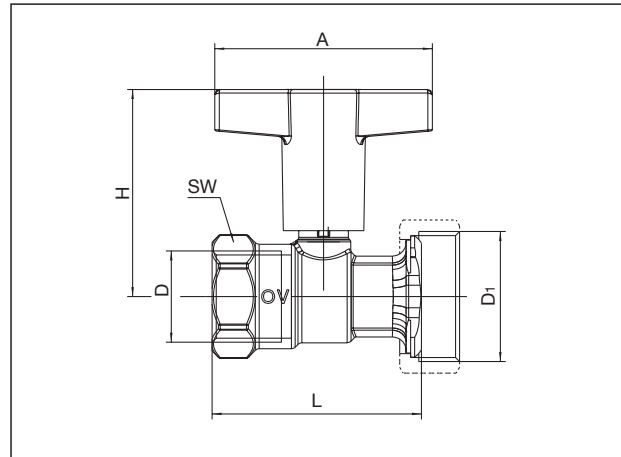
Thermometer conversion set, red and blue

Red thermometer for the supply pipe and blue thermometer for the return pipe.

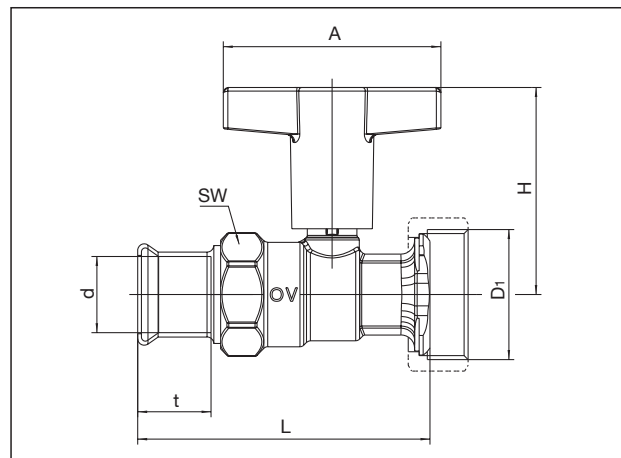
DN 25/ 32 (set = 1 x red, 1 x blue) Item no. 1078182

Thermometer conversion set, anthracite

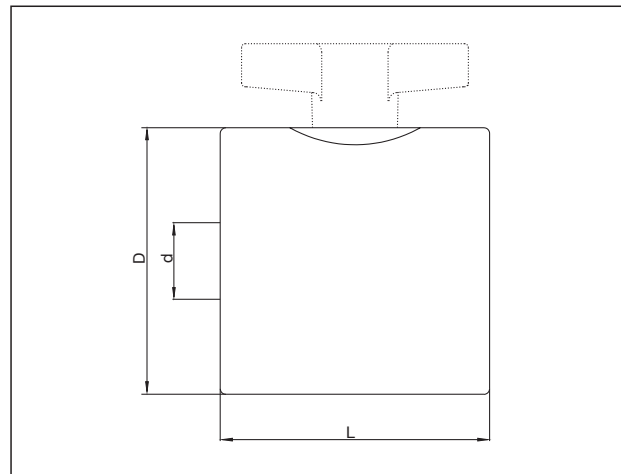
DN 25/ 32 (1 x anthracite) Item no. 1078382



“Optibal P” with female thread
Item no. 1078171/72/73, with check valve
Item no. 1078371/72/73, without check valve



“Optibal P” with press connection
Item no. 1078161/62, with check valve
Item no. 1078361/62, without check valve



Insulation shell item no. 1078194/95

Subject to technical modifications without notice.

Product range 6
ti 92-EN/10/MW
Edition 2017