



The Oventrop Quality Management System is certified to DIN-EN-ISO 9001

Pump ball valve "Optibal P"
Isolating set "Optibal PK"

Technical information

Application:

Oventrop pump ball valves "Optibal P" are used in central heating systems with circulation pump as well as in industry. They are suitable for direct connection to the circulation pump. To prevent undesired gravity circulation in the pipework, the Oventrop pump ball valves are also available with integrated automatic check valve. They are designed for installation at the pump inlet.

Brass pump ball valves:

The pump ball valves "Optibal P" are nickel plated. One port has a flanged pump connection allowing to slip-on the collar nut and one port has a female thread according to EN 10226.

Function:

The pump ball valve is 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. Due to the extended plastic handle, the pump ball valve may be equipped with standard insulations. Gravity circulation is achieved by turning the handle to 45° position.

Advantages:

- installation with integrated check valve at the pump inlet, thus avoiding a dry running of the pump
- extended plastic handle allowing a continuous insulation, no stem extension required
- operation handle outside the insulation
- check valve lockable for gravity circulation
- plate in the handwheel may e.g. be replaced by a personalized plate
- ball valves may subsequently be equipped with a thermometer

Pump ball valve isolating set "Optibal PK":

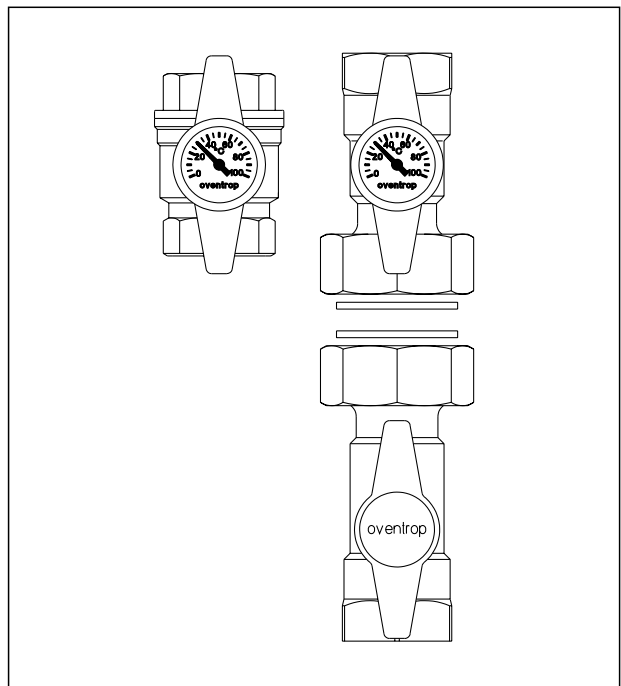
The set consists of a pump ball valve with check valve for installation at the pump inlet or outlet, a second pump ball valve without check valve with red thermometer for the supply pipe and a ball valve with female threads on both ports which is equipped with a blue thermometer for the return pipe. Moreover, the set includes two collar nuts made of nickel plated brass as well as two flat seals for connection to the pump.

Accessories:

The ball valve for the return pipe is also available as single component without thermometer. It may subsequently be equipped with an anthracite thermometer. Suitable insulations are available for all ball valves.



Pump ball valve "Optibal P" with check valve



Pump ball valve isolating set "Optibal PK"

Pump ball valves "Optibal P", nickel plated, one port flanged pump connection, one port female thread:

Application:

Domestic installation, industry

Pressure and temperature range:

PN 10 for hot water central heating systems with circulation pump up to 120°C

Construction:

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

one port flanged pump connection, one port female thread, with check valve, installation at the pump inlet:

Opening pressure of the check valve: approx. 20 mbar

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

Dimensions, k_v values:

Item no.	DN	L	l ₁	D	D ₁	h	k_v^*
107 81 51	25	93	80	1"	1½"	76.5	9.1
107 81 52	32	113.5	80	1¼"	2"	79	12.6
107 83 51	25	73	80	1"	1½"	76.5	16.4
107 83 52	32	84	80	1¼"	2"	79	32.9
107 71 08	25	67	80	1"	-	77	35
107 85 52	32	72	80	1¼"	-	77	35

* k_v values in m³/h with $\Delta p = 1$ bar

Pump ball valve isolating set "Optibal PK":

Supply: Pump ball valve with check valve and pump ball valve with thermometer (red) as well as collar nuts and seals for the pump flanges.

Return: Female threaded ball valve with thermometer (blue).

Dimensions see single components.

DN 25 1" (collar nuts 1½") 135 35 81

DN 32 1¼" (collar nuts 2") 135 35 82

Accessories:

Insulation suitable for the pump ball valves "Optibal P" with extended plastic handle:

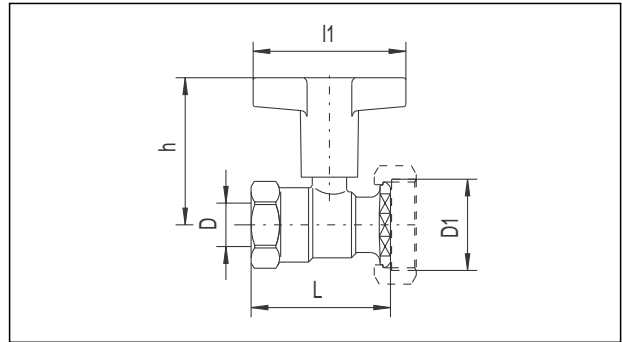
Item no. ball valve	Item no. insulation	DN	d	D	L	I
107 81 51	107 81 91	25	1"	Ø 82	82	37
107 81 52	107 81 92	32	1¼"	Ø 90	100	51
107 83 51	107 83 91	25	1"	Ø 76	65	18.5
107 83 52	107 83 92	32	1¼"	Ø 86	74	21.5
107 71 08	107 71 94	25	1"	Ø 92	115	57.5
107 85 52	107 85 92	32	1¼"	Ø 100	127	63.5

Conversion set thermometer, anthracite:

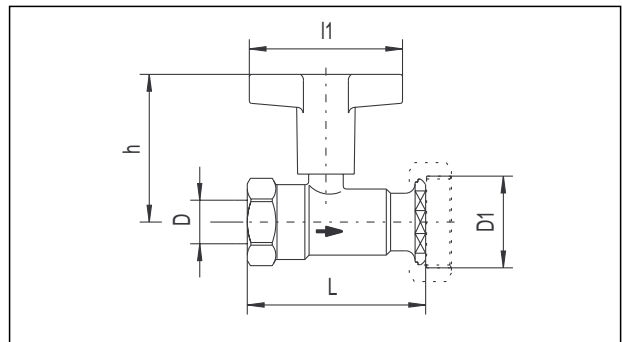
One thermometer with special screw

for "Optibal P" DN 25/32 107 83 82

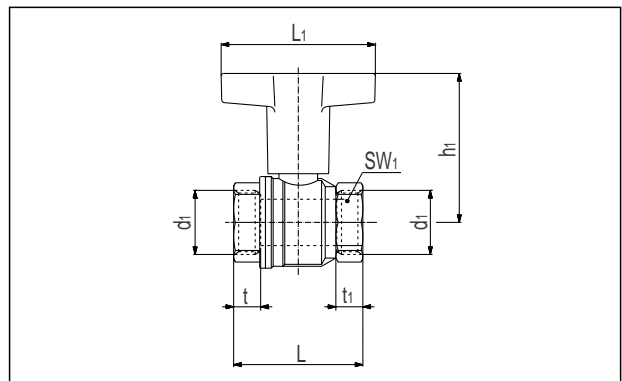
for "Optibal" DN 25/32 107 71 82



Item nos. 107 83 51/52 (1" and 1¼")
extended handle

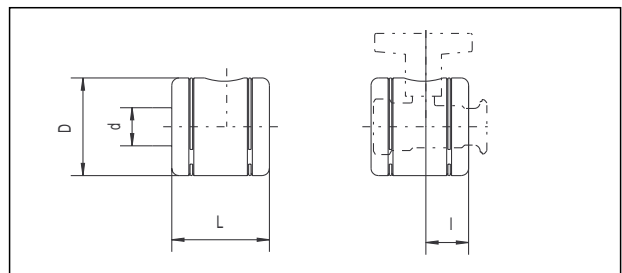


Item nos. 107 81 51/52 (1" and 1¼")
extended handle



Item nos. 107 71 08 and 107 85 52 (1" and 1¼")
extended handle

Insulation:



Item nos. 107 81 91/92 (DN 25 and DN 32)
Item nos. 107 83 91/92 (DN 25 and DN 32)
Item nos. 107 71 94/107 85 92 (DN 25 and DN 32)
tightened with clamping ring

Insulations may be purchased from Oventrop or directly from the manufacturer: GWK – Kuhlmann GmbH, Franz-Kleine-Str. 16, D-33154 Salzkotten, phone: +49 5258 6066, fax: +49 5258 2 17 69

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