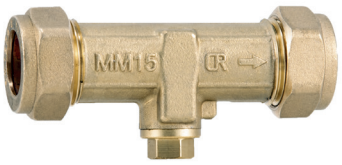
DOUBLE CHECK VALVE WITH TEST PORT



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WRAS APPROVED PRODUCT *

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Description

Barberi® check valves are monodirectional devices, allowing the backflow prevention of fluid under pressure.
They are normally used in domestic water installations, booster pump systems, heating systems, central heating systems, heat generators (wall-mounted boilers, solid fuel generators, heat pumps). Sealing is permitted through forces exerted by a spring and by the fluid pressure against a gasket which guarantees the seal even at very low back pressures. Moreover, the force of the spring allows the valve to have a universal characteristic concerning the installation position.
The peculiarity of this range of valves is the presence of two check valve inserts and one test port between the two inserts. The double check valve creates an intermediate chamber to separate with more safety the downstream fluid from the upstream fluid, avoiding any backflow toward the upstream circuit. The test port can be used to check the correct working of the downstream check valve. This valve can be used as antipollution device in potable water systems.

Range of products

Series 172 Double check valve with test port and compression ends - brass plug

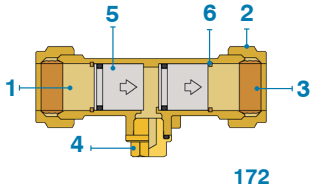
Series 173 Double check valve with test port and one compression end - brass plug - nickel plated

Features

Working temperature range (peaks):
-20 *(see suitable fluids)***–110 °C**
Working temperature range: **0** *(no frost)***–95 °C**
Opening pressure: **0,05 bar**
Max working pressure: **16 bar**
Suitable fluyds: **water for thermal systems, glycol solutions (max 30%), potable water**
Threaded connections: **ISO 228-1**
compression ends EN 1254-2
Test: **EN12266-1 §A.3**
On request versions with galvanic treatment

Materials

1 - Body: **brass EN 12165 CW602N (DZR)**
2 - Nut: **brass EN 12165 CW617N**
3 - Olive: **annealed copper**
4 - Plug: **brass EN 12164 CW602N (DZR)**
5 - Insert: **POM+NBR**
6 - Locking ring: **phosphorous bronze**



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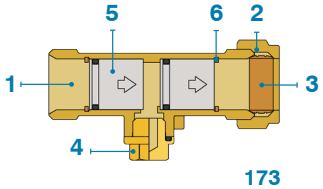

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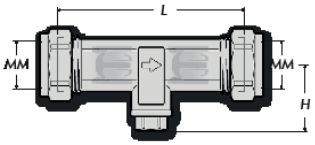
Dimensions



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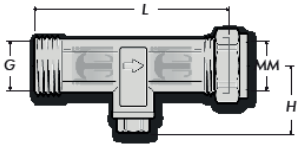
Code	P [bar]	MM [mm]	H [mm]	L [mm]	Weight [g]	N. P/B	N. P/C
172015000	16	15	23	61	130	-	150
172022000	16	22	26	88	232	-	100

N. P/B: number of pieces in box - N. P/C: number of pieces in carton (plastic bag)



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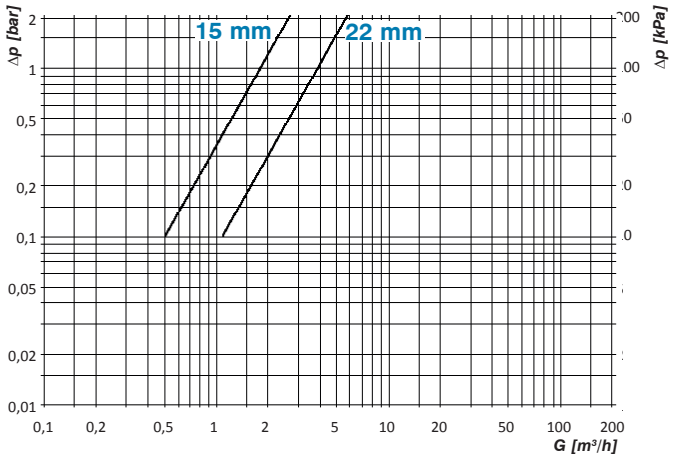
Code	P [bar]	MM [mm]	G	H [mm]	L [mm]	Weight [g]	N. P/B	N. P/C
173015N00	16	15	G 1/2 M	23	61	110	25	200

N. P/B: number of pieces in box - N. P/C: number of pieces in carton

Approvals

***WRAS®** certification for code 172015000 only

Diagrams



Size	G [m³/h] with Δp=1 bar	G [m³/h] with Δp=1,5 bar
15 mm	1,8	3,9
22 mm	2,7	4,9

Installation

Universal check valves can be installed in any position respecting the flow direction as indicated by the arrow on the valve body. Connection to pipes is made through compression ends using standard plumbing skills. It is suggested to install the valve in horizontal position with the test port pointing downward to facilitate the flow during the discharge phase. It is suggested to install the check valve by coupling it to a shut-off valve upstream, easily accessible, to verify the check valve tightness. Before installing the valve, a good flushing of the pipe is recommended to remove any installation debris thus avoiding any function impair.

Maintenance

Inspect the valve regularly, according to the operating conditions and frequency of use, at least once a year (EN 806-5):
1) every pressure decrease in the upstream supply network or flow interruption should cause the valve closure, to avoid water from backflowing upstream;
2) if leakages are found where the gasket is housed, these could be caused by debris. It is therefore necessary to disassemble the valve and clean accurately the gasket using compressed air or mechanical action to remove all impurities. If used as antipollution device, it is anyway suggested to replace it.

Inspection of the check valve tightness

The verification of the tightness, with the check valve installed and the test port plug fully closed, must be carried out according to the following steps:

- check the correct functioning of the shut-off devices;
- close all the shut-off devices (and/or taps) downstream of the check valve. This will keep the downstream pressure thrusting against the check valve obturator;
- close the shut-off valve upstream of the check valve;
- empty the part of the system between the upstream shut-off valve and the check valve;
- if the flow stops after emptying the above mentioned part, the valve is correctly working, otherwise if the flow doesn't stop, it is necessary to replace the valve.

Specifications

Series 172
Double check valve with test port and compression ends. Compression ends for 15 and 22 mm copper pipe. Body in DZR brass. Brass plug. Check valve inserts in POM and NBR gasket. Working temperatue range 0–95 °C. Check valve opening pressure 0,05 bar. Maximum working pressure 16 bar. Suitable fluids water for thermal systems, glycol solutions (max 30%), potable water.

Series 173
Double check valve with test port and one compression end. Compression end for 15 mm copper pipe and G 1/2 M threaded connection. Body in DZR brass. Brass plug. Check valve inserts in POM and NBR gasket. Working temperatue range 0–95 °C. Check valve opening pressure 0,05 bar. Maximum working pressure 16 bar. Suitable fluids water for thermal systems, glycol solutions (max 30%), potable water.

Barberi Rubinetterie Industriali s.r.l. | Via Monte Fenera 7 - 13018 Valduggia (VC) ITALY | +39 0163 48284 | barberi@barberi.it | www.barberi.it | @barberi.italy