

SWING CHECK VALVE

060
080100
102

125

Description

Barberi® swing check valves are monodirectional devices, allowing the backflow prevention of fluid under pressure. They are normally used in heating systems, central heating systems, heat generators (wall-mounted boilers, solid fuel generators, heat pumps), thermal solar systems, generic industrial and agricultural water systems. The inner hydraulic seal is obtained through the forces exerted by the body of a swinging obturator and by the fluid pressure against a gasket which guarantees the seal even at very low back pressures. Since these valves work with gravity force, directly acting on the swinging obturator (clapet or swinging obturator), they don't have a universal characteristics for the installation position. The advantage of these valves is the low head loss thanks to the body round shape and the big bore obtained from the swinging movement of the obturator; these features make these valves also work silently. There are versions with rubber-metal seal (art. 060, 080, 100 and 125) or metal seal (art. 080 and 102) used especially with thick or less liquid fluids (for example sewages). Swing check valves (art. 060, 080, 100, 102) are equipped with a plug to inspect the valve.

Range of products

Series 060 Swing check valve FF - rubber tightness

Series 080 Swing check valve FF - metal tightness

Series 100 Swing check valve MM - rubber tightness

Series 102 Swing check valve MM - metal tightness

Series 125 Wafer or inter-flanged swing check valve PN 16

Technical 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:

060 - 080 from G 3/8 to G 3 **16 bar**

from G 4 to G 6 **10 bar**

100 - 102 - 125 **16 bar**

Suitable fluids: **water for thermal systems,**
glycol solutions (max 30%)

Connections: **threaded connections ISO 228-1**

Test: **EN 12266-1 §A.3**

On request: versions with galvanic treatment

Materials 060-080

1 - Valve body:

brass EN 12165 CW617N (size from G 3/8 to G 1)

brass EN 1982 CB753S (size from G 1 1/4 to G 4)

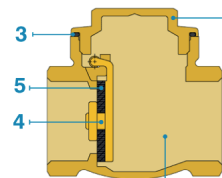
bronze (size G 5 and G 6)

2 - Plug: brass EN 12165 CW617N

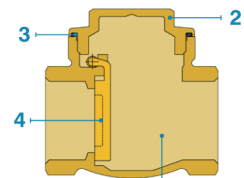
3 - O-ring: NBR

4 - Obturator: brass EN 12165 CW617N

5 - Gaskets: NBR



060

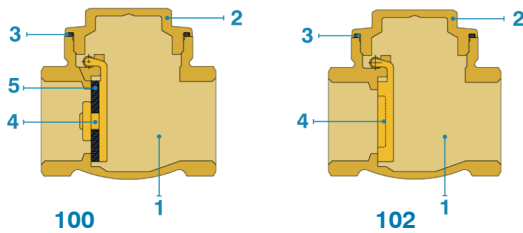


080

SWING CHECK VALVE

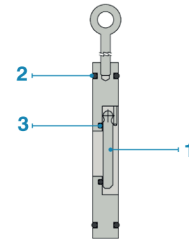
Materials 100-102

- 1 - Valve body: **brass EN 1982 CB753S**
- 2 - Plug: **brass EN 12165 CW617N**
- 3 - O-ring: **NBR**
- 4 - Obturator: **brass EN 12165 CW617N**
- 5 - Gaskets: **NBR**

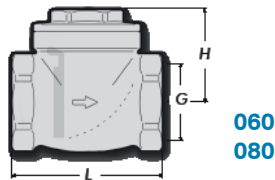


Materials 125

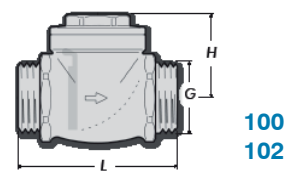
- 1 - Valve body: **zinc plated steel**
- 2 - Gaskets: **NBR**
- 3 - Gaskets: **NBR**



Dimensions



060
080



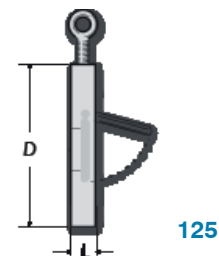
100
102

| Code | P [bar] | G | H | L | Weight [g] | N. P/B | N. P/C |
|-----------|---------|---------|-----|-----|------------|--------|--------|
| 060010000 | 16 | G 3/8 | 32 | 47 | 165 | 15 | 120 |
| 060015000 | 16 | G 1/2 | 32 | 47 | 146 | 20 | 160 |
| 060020000 | 16 | G 3/4 | 35 | 54 | 203 | 10 | 120 |
| 060025000 | 16 | G 1 | 39 | 64 | 330 | 10 | 60 |
| 060032000 | 16 | G 1 1/4 | 47 | 75 | 500 | 10 | 40 |
| 060040000 | 16 | G 1 1/2 | 51 | 83 | 660 | 6 | 36 |
| 060050000 | 16 | G 2 | 59 | 98 | 1000 | 4 | 24 |
| 060065000 | 16 | G 2 1/2 | 67 | 116 | 1570 | - | 12 |
| 060080000 | 16 | G 3 | 77 | 135 | 2262 | - | 10 |
| 060100000 | 10 | G 4 | 92 | 164 | 3930 | - | 4 |
| 060125000 | 10 | G 5 | 118 | 206 | 7200 | - | 2 |
| 060150000 | 10 | G 6 | 134 | 235 | 9725 | - | 1 |

| Code | P [bar] | G | H | L | Weight [g] | N. P/B | N. P/C |
|-----------|---------|---------|----|-----|------------|--------|--------|
| 100050000 | 16 | G 2 | 59 | 108 | 1300 | - | 16 |
| 100065000 | 16 | G 2 1/2 | 68 | 118 | 1630 | - | 12 |

| Codice | P [bar] | G | H | L | Peso [g] | N. P/S | N. P/C |
|-----------|---------|---------|----|-----|----------|--------|--------|
| 102050000 | 16 | G 2 | 59 | 108 | 1240 | - | 16 |
| 102065000 | 16 | G 2 1/2 | 68 | 118 | 1582 | - | 12 |

| Code | P [bar] | G | H | L | Weight [g] | N. P/B | N. P/C |
|-----------|---------|---------|-----|-----|------------|--------|--------|
| 080010000 | 16 | G 3/8 | 32 | 47 | 170 | 15 | 120 |
| 080015000 | 16 | G 1/2 | 32 | 47 | 147 | 20 | 160 |
| 080020000 | 16 | G 3/4 | 35 | 54 | 208 | 10 | 120 |
| 080025000 | 16 | G 1 | 39 | 64 | 334 | 10 | 60 |
| 080032000 | 16 | G 1 1/4 | 47 | 75 | 486 | 10 | 40 |
| 080040000 | 16 | G 1 1/2 | 51 | 83 | 650 | 6 | 36 |
| 080050000 | 16 | G 2 | 59 | 98 | 1000 | 4 | 24 |
| 080065000 | 16 | G 2 1/2 | 67 | 116 | 1556 | - | 12 |
| 080080000 | 16 | G 3 | 77 | 135 | 2240 | - | 10 |
| 080100000 | 10 | G 4 | 92 | 164 | 3900 | - | 4 |
| 080125000 | 10 | G 5 | 118 | 206 | 7150 | - | 2 |
| 080150000 | 10 | G 6 | 134 | 235 | 9665 | - | 1 |



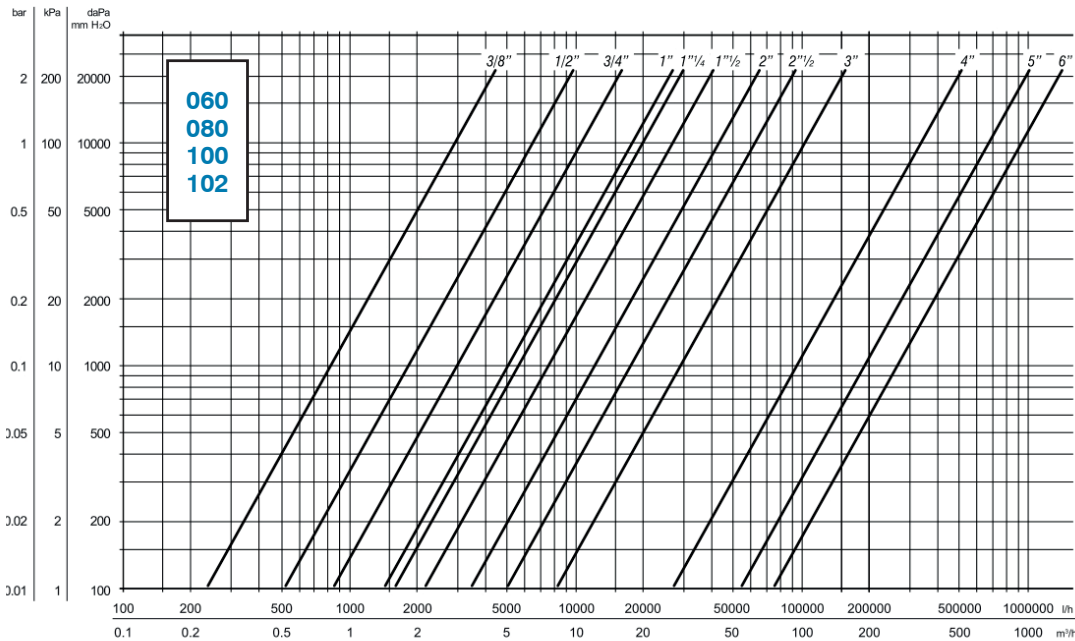
125

| Code | P [bar] | DN | Kv | D | L | Weight [g] | N. P/B | N. P/C |
|-----------|---------|-----|------|-----|----|------------|--------|--------|
| 125050000 | 16 | 50 | 41 | 109 | 15 | 1040 | - | - |
| 125065000 | 16 | 65 | 75 | 129 | 15 | 1420 | - | - |
| 125080000 | 16 | 80 | 140 | 144 | 17 | 1800 | - | - |
| 125100000 | 16 | 100 | 208 | 164 | 17 | 2200 | - | - |
| 125125000 | 16 | 125 | 341 | 195 | 18 | 3200 | - | - |
| 125150000 | 16 | 150 | 525 | 221 | 21 | 4500 | - | - |
| 125200000 | 16 | 200 | 1093 | 276 | 29 | 9800 | - | - |
| 125250000 | 16 | 250 | 1670 | 330 | 34 | 15800 | - | - |

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

SWING CHECK VALVE

Diagrams



| G | Kv [m³/h] |
|---------|-----------|
| G 3/8 | 2,9 |
| G 1/2 | 6,5 |
| G 3/4 | 10,5 |
| G 1 | 17,8 |
| G 1 1/4 | 19,8 |
| G 1 1/2 | 26,7 |
| G 2 | 42,8 |
| G 2 1/2 | 61,4 |
| G 3 | 103 |
| G 4 | 336 |
| G 5 | 663 |
| G 6 | 932 |

Installation

Swing check valves can be installed in either horizontal or vertical position respecting the flow direction indicated by the arrow marked on the valve body. While in horizontal position the valve shall be installed with the plug towards the top otherwise the valve will not work. While in vertical position the valve normally works only if the flow is coming from the bottom. The assembling on pipes is done through threads using standard plumbing skills.

Maintenance

Inspect the valve regularly according to operational conditions and frequency of use. If leakages are found where gaskets are housed, these could be caused by debris; if so it is necessary to disassemble the valve and clean accurately the gasket from all impurities using compressed air or mechanical action. If so it is possible to disassemble the inspection plug on the upper part of the valve to check the obturator and clean the gasket removing all debris by using compressed air or mechanical action. This operation can be done emptying previously the interested part of the installation.

Specifications

Series 060-080

Swing check valve. Female threaded connections (ISO 228-1) from G 3/8 to G 6. Rubber (series 060) or metallic seal (series 080). Valve body, plug and obturator in brass (bronze body for sizes G 5 and G 6); seals in NBR. Working temperature range (peaks) -20 (see suitable fluids)–110 °C, working temperature range 0 (no frost)–95 °C. Opening pressure 0,05 bar. Maximum working pressure 16 bar (from G 3/8 to G 3), 10 bar (from G 4 to G 6). Suitable fluids water for thermal systems, glycol solutions (max 30%).

Series 100-102

Swing check valve. Male threaded connections (ISO 228-1) from G 2 to G 2 1/2. Rubber (series 100) or metallic seal (series 080). Valve body, plug and obturator in brass; seals in NBR. Working temperature range (peaks) -20 (see suitable fluids)–110 °C, working temperature range 0 (no frost)–95 °C. Opening pressure 0,05 bar. Maximum working pressure 16 bar. Suitable fluids water for thermal systems, glycol solutions (max 30%).

Series 125

Wafer inter-flanged swing check valve, PN 16. Connections DN 50–DN 250. Rubber seals. Zinc-plated steel body; NBR seals. Working temperature range (peaks) -20 (see suitable fluids)–110 °C, working temperature range 0 (no frost)–95 °C. Opening pressure 0,05 bar. Maximum working pressure 16 bar. Suitable fluids water for thermal systems, glycol solutions (max 30%).