

207

Membrane non-return valve

M system

Technical Data Sheet



Description

This valve is designed for installations that generate significant water hammer. It is very reliable and quiet (no mechanical moving parts, anti-incrustation closing system and seat). Ideal for booster pumps, sprinkler systems, motor or electric pump units and compressed air circuits. Alternating operation. On membrane check valves, the opening set by the elasticity and the thickness of the membrane is very progressive and can be obtained as a result of a few centimeters of W/C. Because of this, this check valve is particularly suitable for variable flow pumps and pulsatory operation

- Operates in any position
- Minimum head loss
- Does not generate hammering, very silent
- Sealing ensured by membrane's self-closing.
- Closing system : flexible membrane (thick elastomer disc) held in its center on a metal seat composed of a grid (flow equivalent to the nominal section)



207

Membrane non-return valve - M system

| DN | PFA in bar | PS in bar | | | | Cat. | Ref. | Weight Kg |
|-------|---------------|-----------|----|----|----|------|-----------------|--------------|
| | | L1 | L2 | G1 | G2 | | | |
| 3/8 | 12/17 | 16 | 16 | 16 | 16 | 4.3 | 149B2019 | 0,15 |
| 1/2 | 15/21 | 16 | 16 | 16 | 16 | 4.3 | 149B2100 | 0,85 |
| 3/4 | 20/27 | 16 | 16 | 16 | 16 | 4.3 | 149B2101 | 0,85 |
| 1 | 26/34 | 16 | 16 | 16 | 16 | 4.3 | 149B2102 | 1,30 |
| 1 1/4 | 33/42 | 16 | 16 | 16 | 16 | I | 149B2103 | 1,60 |
| 1 1/2 | 40/49 | 16 | 16 | 16 | 16 | I | 149B2104 | 2,60 |
| 2 | 50/60 | 16 | 16 | 16 | 16 | I | 149B2105 | 4,00 |
| 2 1/2 | 66/76 | 16 | 16 | 16 | 15 | I | 149B2106 | 6,40 |
| 3 | 80/90 | 16 | 16 | 16 | 12 | I | 149B2107 | 12,00 |

Important notice :

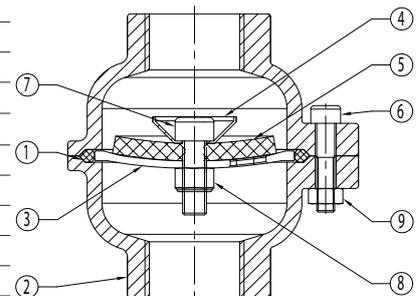
The indicated pressure for the different categories of fluids (L1/L2/G1/G2) is under no condition a guarantee of use. Therefore, it is essential to validate the use of products under given operating conditions. The operating instructions are available on our website www.socla.com or by requesting from our sales department."

Technical features

| | |
|---|----------------------|
| Operating temperature | -10 °C at 60 °C |
| Permissible operating pressure (PFA) in water | See table above |
| Maximum permissible pressure (PS) other mediums | See table above |
| Connection | Female / Female, BSP |
| Mediums | Clear liquids, gas |

Nomenclature and materials

| N° | Description | Materials | EURO | ANSI |
|----|-------------|------------------|-----------------|--------------------------------|
| 1 | O-ring | EPDM | | |
| 2 | Body | DN 3/8" | Aluminium | EN AC-AISI7Mg0.3 |
| | | DN 1/2" to 3" | Cast iron/Epoxy | EN-GJL-250 ASTM A 48 35 B |
| 3 | Seat | DN 3/8" | Aluminium | |
| | | DN 1/2" to 3" | Stainless steel | CB7Cu-1 |
| 4 | Cup | DN 3/8" | Aluminium | EN AW-AICu4MgSi |
| | | DN 1/2" to 2"1/2 | Stainless steel | X6Cr17 AISI 430 |
| | | DN 3" | Brass | CuZn39Pb3 |
| 5 | Membrane | NR | | |
| 6 | Screw | Stainless steel | X5Cr-Ni18-10 | AISI 304 |
| 7 | Screw | Stainless steel | X5Cr-Ni18-10 | AISI 304 |
| 8 | Nut | Stainless steel | X5Cr-Ni18-10 | AISI 304 |
| 9 | Nut | Galvanised steel | | |



Approvals



International construction Standards :
CE conformity directive 2014/68/UE
Thread connection NFE 03-005 ISO228

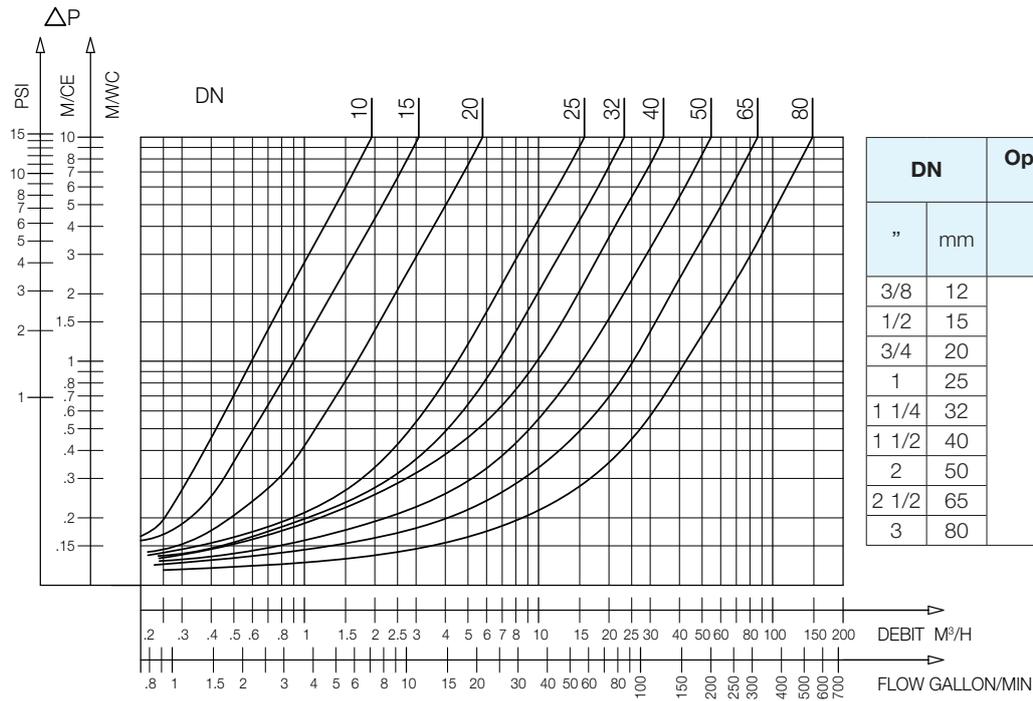
Application

Booster pumps, compressed air circuits, vacuum pumps.

Operation

Direction for use :

- Solid line: Valve completely open

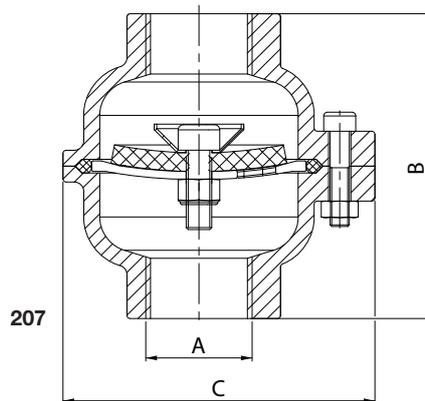


| DN | | Opening pressure in mm/CE | Kv | ζ |
|-------|----|---------------------------|-------|------|
| " | mm | | m³/H | |
| 3/8 | 12 | Near to 0 | 1,95 | 8,8 |
| 1/2 | 15 | | 3,1 | 8,5 |
| 3/4 | 20 | | 5,8 | 7,7 |
| 1 | 25 | | 15,7 | 2,55 |
| 1 1/4 | 32 | | 23,25 | 3,1 |
| 1 1/2 | 40 | | 34,2 | 3,5 |
| 2 | 50 | | 54,6 | 3,4 |
| 2 1/2 | 65 | | 86,3 | 3,85 |
| 3 | 80 | | 148,4 | 3 |

207 - Headloss chart

Sizing

| A | | B | C |
|-------|-------|------|-------|
| " | mm | mm | mm |
| 3/8 | 12/17 | 67,5 | 60 |
| 1/2 | 15/21 | 86 | 88 |
| 3/4 | 20/27 | 86 | 88 |
| 1 | 26/34 | 96 | 97,5 |
| 1 1/4 | 33/42 | 100 | 107,5 |
| 1 1/2 | 40/49 | 132 | 123,5 |
| 2 | 50/60 | 172 | 139,5 |
| 2 1/2 | 66/76 | 196 | 170 |
| 3 | 80/90 | 234 | 214 |



The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding.

Socla reserves the right to carry out any technical and design improvements to its products without prior notice. Warranty : All sales and contracts for sale are expressly conditioned on the buyer's assent to Socla terms and conditions found on its website at www.socla.com. Socla hereby objects to any term, different from or additional to Socla terms, contained in any buyer communication in any form, unless agreed to in a writing signed by an officer of Socla.



A WATTS Brand

Socla sas

365 rue du Lieutenant Putier • 71530 Virey-Le-Grand • France

Tel. +33 03 85 97 42 00 • Fax +33 03 85 97 42 42

contact@wattswater.com • www.socla.com

ISO 9001 version 2015 / ISO 18001