

# 407

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
- Low head loss
- Does not generate hammering
- 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)



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DN	PN	PFA in bar	PS in bar				Cat.	Ref.	Weight Kg
			L1	L2	G1	G2			
1 1/2	40	10/16	16	16	16	16	I	<b>149B2164</b>	6,9
2	50	10/16	16	16	16	16	I	<b>149B2165</b>	8,9
2 1/2	65	10/16	16	16	15	16	I	<b>149B2166</b>	11,9
3	80	10/16	16	16	12	16	I	<b>149B2167</b>	15,9
4	100	10/16	16	16	10	16	I	<b>149B2168</b>	19,5
5	125	10/16	16	16	0,5	16	I	<b>149B2169</b>	25,4
6	150	10/16	16	13	0,5	16	I	<b>149B2170</b>	39,5
8	200	10	10	10	0,5	10	I	<b>149B2237</b>	81,6

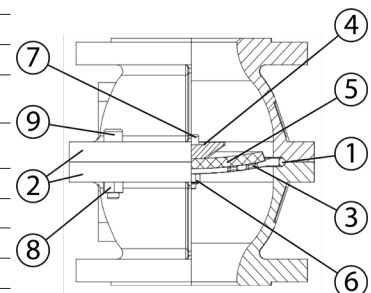
**Important notice :**

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](http://www.socla.com) or by requesting from our sales department.

Technical features	
Operating temperature	-10 °C to 60 °C
Permissible operating pressure (PFA) in water	See table above
Maximum permissible pressure (PS) other mediums	See table above
Connection	Flanges drilled PN (see table)
Mediums	Clear liquids, hydrocarbons

### Nomenclature and materials

N°	Description	Materials	EURO	ANSI	
1	O-ring	FKM			
2	Body	Cast iron/epoxy	EN 1561 EN-GJL-250	ASTM A 48 35 B	
	DN 40 to 100	Stainless steel	CB7Cu-1 (17-4PH1150)		
3	Seat	DN 125 to 150	Rilsan coated steel		
	DN 200	Rilsan coated steel	C45R (XC48)		
4	Cup	DN 65	Brass	EN 10088-3 X6Cr17	AISI 430
	DN 80 to 200	FKM	EN 12164 CuZn39Pb3 R360 mini		
5	Membrane	Stainless steel			
6	Nut	Stainless steel	EN 10088-3 X5Cr-Ni18-10	AISI 304	
7	Screw	Galvanised steel	EN 10088-3 X5Cr-Ni18-10	AISI 304	
8	Nut	Stainless steel	EN 10088-3 X5Cr-Ni18-10	AISI 304	
9	Screw	Stainless steel	EN 10088-3 X5Cr-Ni18-10	AISI 304	



## Approvals



**International construction Standards :**  
CE conformity directive 2014/68/UE  
Thread connection according to EN1092-2

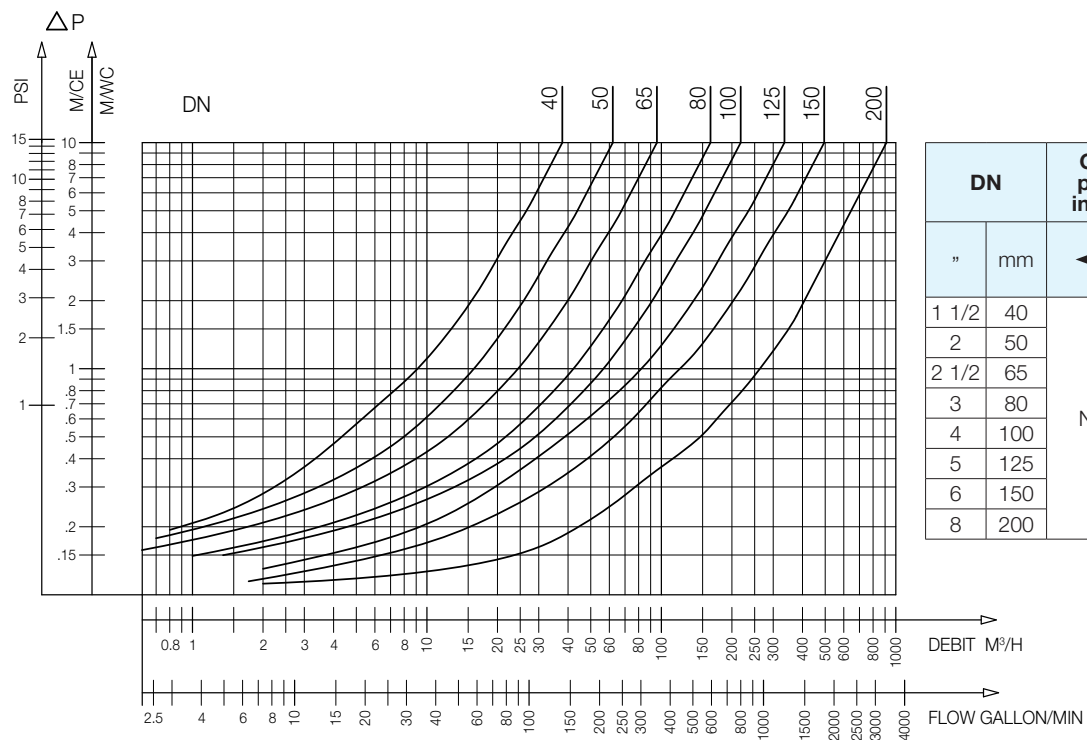
## Application

Booster pumps, compressed air circuits, vacuum pumps.

## Operation

**Direction for use :**

- Solid line: Valve completely open

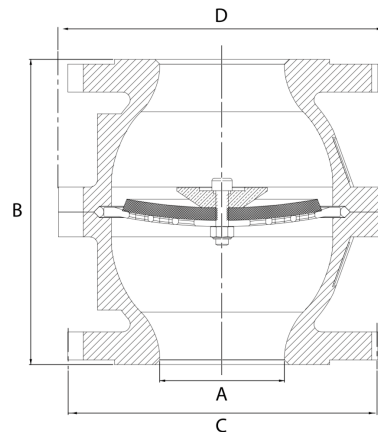


DN		Opening pressure in mm/CE	Kv	ζ
"	mm		m³/H	
1 1/2	40	Near to 0	37,8	2,86
2	50		61,15	2,67
2 1/2	65		95,3	3,14
3	80		162	2,49
4	100		218,7	3,34
5	125		335,3	3,47
6	150		495	3,3
8	200		912,4	3,07

407 - Headloss chart

## Sizing

A		B	C	D
"	mm	mm	mm	mm
1 1/2	40	148	150	140
2	50	158	164	159
2 1/2	65	176	183	169
3	80	196	200	212
4	100	213	220	234
5	125	228	250	250
6	150	266	285	324
8	200	439	340	426



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