

402 S

Non-return axial guided valve
02 System

Technical Data Sheet



A non-return valve is compatible with many types of fluids and can be adapted to a wide range of installations. However, each of these installations comes with their own particular constraints : mechanical, hydraulic, physical or chemical. The O2 system offers the best compromise between hydraulic performance, ruggedness, sealing-tightness and cost effectiveness with any kind of liquids (subject to a validation of our recommendation service).

Our valves meet the requirements of the Pressure Equipment Directive 2014/68/UE. This range extends from 40 to 500 mm. By its technology, it operates in any position for a lot of applications. It's compact and it doesn't generate hammering.

- **Internal and external Epoxy coating** increasing resistance to corrosion
- **Hydraulic shape** means very little energy loss
- Excellent ensured sealing tightness by an EPDM seal
- **Bronze guide ring** enables a better movement of the closing system and preventing premature wear
- Stainless steel spring allowing system to function in any position
- **Passage for cables** of submersible pumps



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Non-return axial guided valve - O2 System

DN in mm	PN	PFA in bar	PS in bar				Cat.	Ref.	Weight Kg
			L1	L2	G1	G2			
40	25/40	40	40	40	25	40	I	149B2281GS	4,2
40	25/40	40	40	40	40	40	II	149B018804	4,2
50	25/40	40	40	40	20	40	I	149B2282GS	5,8
50	25/40	40	40	40	40	40	II	149B018805	5,8
65	25/40	40	30	40	15	40	I	149B2283GS	8,1
65	25/40	40	40	40	40	40	II	149B018806	8,1
80	25/40	40	25	40	12	40	I	149B2284GS	10,2
80	25/40	40	40	40	40	40	II	149B018810	10,2
100	25/40	40	20	40	10	40	I	149B2285GS	14,5
100	25/40	40	40	40	40	40	II	149B018811	14,5
125	25/40	40	16	40	0,5	28	I	149B2226GS	24
125	25/40	40	40	40	28	40	II	149B018812	24
150	25/40	40	13	40	0,5	23	I	149B2227GS	32
150	25/40	40	40	40	23	33	II	149B018813	32
200	25	25	25	25	17	25	II	149B2229GS	53
250	25	25	25	25	14	20	II	149B2230GS	94
300	25	25	25	25	11	16	II	149B2231GS	140
350	25	25	25	25	10	14	II	149B2232GS	225
400	25	25	25	25	0,5	12	II	149B2233GS	312
450	25	25	10	25	0,5	7	I	149B24822	342
500	25	25	25	25	0,5	10	II	149B2235GS	540

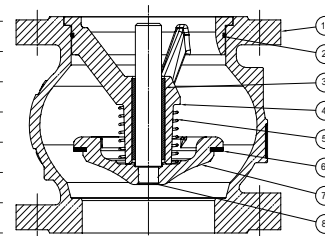
Important notice :

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 web site www.socla.com or by requesting from our sales department.

Technical features	
Operating temperature	-10 °C to 100 °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	Not loaded liquids, gas

Nomenclature and materials

N°	Description	Materials	EURO	ANSI		
1	Body	Ductile iron / Epoxy	EN 1563 EN-GJS-400-15	ASTM A 536 65-45-12		
2	O-ring	EPDM				
3	Ring	Bronze	EN 1982 CuSn5Zn5Pb2-C GS			
4	Guide	DN 50	Bronze	EN 1982 CuSn5Zn5Pb2-C GS		
		DN 40 & 65-450*	Cast iron / Epoxy	EN 1561 EN-GJL-250	ASTM A 48 35 B	
		DN 500	Ductile iron / Epoxy	EN 1563 EN-GJS-400-15	ASTM A 536 65-45-12	
5	Spring	Stainless steel	EN 10270-3 X10CrNi18-8	AISI 302		
6	Seal	EPDM				
7-8	Closing system	DN 40	Brass	EN12164CuZn40Pb2 R360 mini		
		DN 50-250	Bronze	EN 1982 CuSn5Zn5Pb2-C GS		
		DN 300-450	Stem Valve	Bronze Ductile iron / Epoxy	EN 1982 CuSn5Zn5Pb2-C GS EN 1563 EN-GJS-400-15	ASTM A 536 65-45-12
		DN 500	Stem Valve	Bronze Ductile iron / Epoxy	EN 1982 CuSn12-C GS EN 1563 EN-GJS-400-15	ASTM A 536 65-45-12



* DN 450 : 6 screws to block the guide

Approvals

ACS CE PED 2014/68/UE



International construction Standards :

Directive 2014/68/UE

Flange drilling according to EN1092-2

Application

High pressure, for not loaded liquids and gas.

Installation

Installation :

Before putting valve into operation, check that :

- the working conditions are compatible with the details given on the identification plate, the instruction notice and the manufacturer's detail,
- the valve works effectively when tried (carry out a few opening and closing operations of the closing system),
- the valve is free-pollution inside.

On a new installation or after maintenance, the circuit must be rinsed with the valve completely open in order to remove solid matter which may damage the internal parts of the valve.

Commissioning :

The installation should be put under pressure progressively to avoid damage which might occur to internal components.

Make sure that when flow stops the valve maintains pressure well and that there is no water-hammer which might damage the valve or installation.

If there is water-hammer, an anti-water hammer system must be added to the installation.

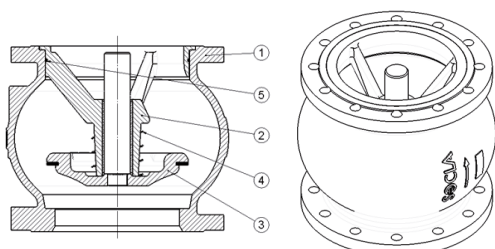
During a prolonged stoppage, a change in the state of the fluid may result in damage when the installation is brought back into service (solidification...).

Establish an adequate procedure program for cleaning the system.

Maintenance

• Removing :

1. Remove guide assembly (N°2)
2. Remove the o-ring seal (N°5) from its groove
3. Remove the spring (N°4)
4. Remove all the closing system (N°3)



• Reassembly :

Make sure that the seal is in a good condition before reassembly the valve.

Clean and lubricate it if necessary with a suitable product.

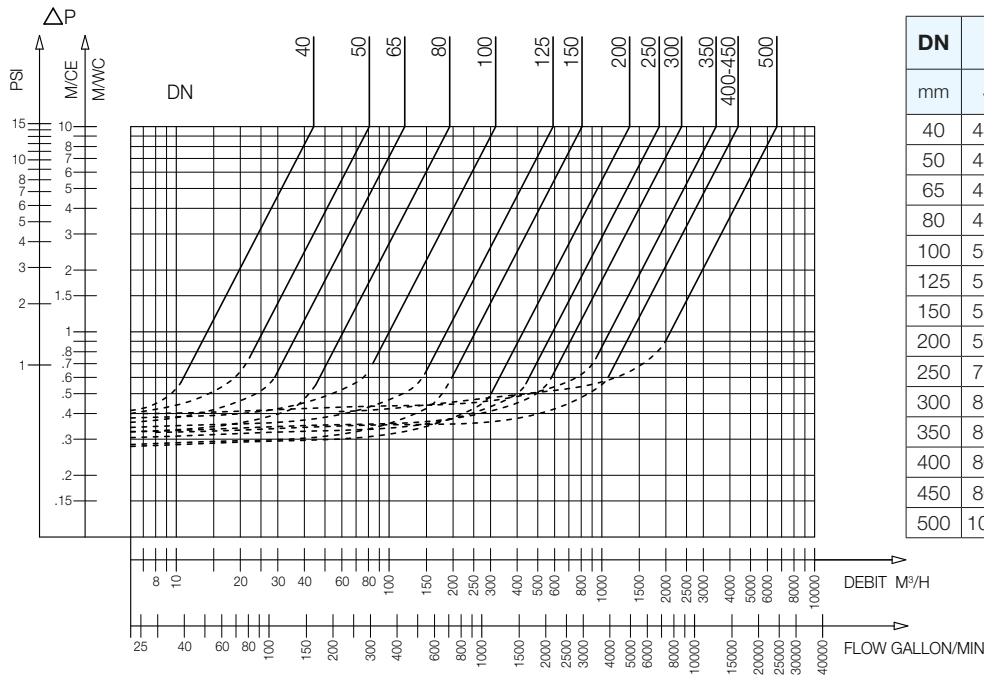
1. Put all the closing system (N°3) into the casing (N°1)
2. Insert the spring (N°4)
3. Put the o-ring seal (N°5) in its groove
4. Insert the guide assembly (N°2). This step may require to use a press.

Once the reassembly done, test the device in order to check its sealing.

Operation

Direction for use :

- Solid line : Valve completely open
- Dotted line : opening stage of valve



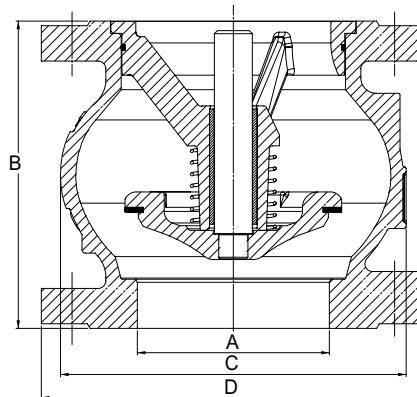
402 S - Headloss chart

DN	Opening pressure in mm CE			Without spring	Kv m³/H	ζ
	↑	↓	↔			
40	440	210	320	120	44,20	2,10
50	440	220	330	110	80,80	1,50
65	450	190	320	130	118,50	2,00
80	450	190	320	130	192,80	1,80
100	500	240	370	130	318,00	1,60
125	510	210	360	150	590,00	1,10
150	550	210	380	170	807,50	1,25
200	590	210	400	190	1351,00	1,40
250	710	210	460	250	1861,80	1,80
300	820	90	460	365	2371,70	2,30
350	860	100	480	380	3444,70	2,00
400	800	50	410	390	4371,20	2,14
450	800	50	410	390	4371,20	3,40
500	1030	0	430	580	6646,20	2,26

Sizing

A	B	C	D
mm	mm	mm	mm
40	85	80	150
50	100	97	165
65	120	125	185
80	140	150	200
100	170	187	235
125	200	220	270
150	230	250	300
200	289	340	360
250	354	420	425
300	396	490	485
350	473	586	555
400	560	680	620
450	560	684	670
500	750	880	670

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

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