

402 V

Non-return axial guided valve
02 System

Technical Data Sheet



Description

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 300 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** of 250µm minimum increasing resistance to corrosion
- **Hydraulic shape** means very little energy loss
- Excellent sealing tightness ensured 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	PS in bar				Cat.	Ref.	Weight Kg
		L1	L2	G1	G2			
40	10/16	16	16	16	16	I	149B2281V	4,2
50	10/16	16	16	16	16	I	149B2346	5,8
65	10/16	16	16	15	16	I	149B2347	8,1
80	10/16	16	16	12	16	I	149B2348	10,2
100	10/16	16	16	10	16	I	149B2349	14,5
125	10/16	16	16	0,5	16	I	149B2226V	24
150	10/16	13	16	0,5	16	I	149B2227V	32
200	10	10	10	0,5	10	I	149B2229V	53
250	10	10	10	0,5	10	I	149B2230V	94
300	10	10	10	0,5	10	I	149B2231V	94

Important notice :

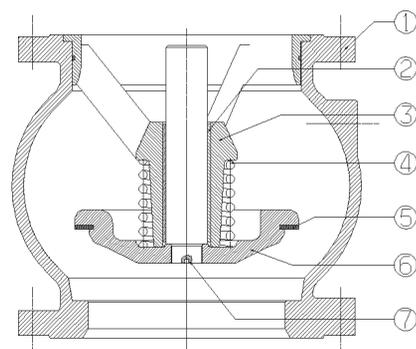
The indicated pressure for the different categories of fluids (L1/L2/G1/G2) is under no condition a guarantee of use. Therefore, it is essential to validate the use of products under given operating conditions. The operating instructions are available on our web site www.socla.com or by requesting from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

Technical features

Operating temperature	-10 °C to 100 °C
Maximum permissible pressure (PS) other mediums	See table above
Connection	Flanges drilled PN (see table)
Mediums	Hydrocarbons, not loaded liquids, gas

Nomenclature and materials

N°	Description	Materials	EURO	ANSI
1	Body	Cast iron / Epoxy	EN 1561 EN-GJL-250	ASTM A 48 35 B
2	Ring	Bronze	EN 1982 CuSn5Zn5Pb2-C GS	
3	Guide	DN 50	Bronze	EN 1982 CuSn5Zn5Pb2-C GS
		Others DN	Cast iron / Epoxy	EN 1561 EN-GJL-250
4	Spring	Stainless steel	EN 10270-3 X10CrNi18-8	AISI 302
5	Seal	FKM		
6	Closing system	DN 40	Brass	EN 12164 CuZn40Pb2 R360 mini
		DN 50-65	Bronze	EN 1982 CuSn5Zn5Pb2-C GS
		Others DN	Cast iron / Epoxy	EN 1561 EN-GJL-250
7	Stem	DN 40	Brass	EN 12164 CuZn40Pb2 R360 mini
		Others DN	Bronze	EN 1982 CuSn5Zn5Pb2-C GS



Approvals



International construction Standards :

Directive 2014/68/UE

Flange drilling according to EN1092-2

Application

Hydrocarbon, not loaded liquids, 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.

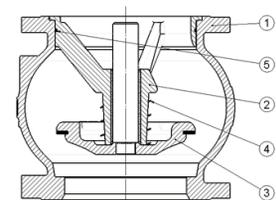
During a prolonged stoppage, a change in the state of the fluid may result in damage when the installation is brought back into service (solidification...).

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)



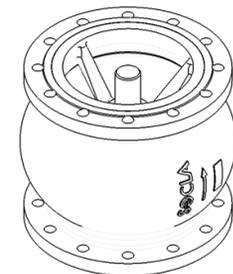
• Reassembly :

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.

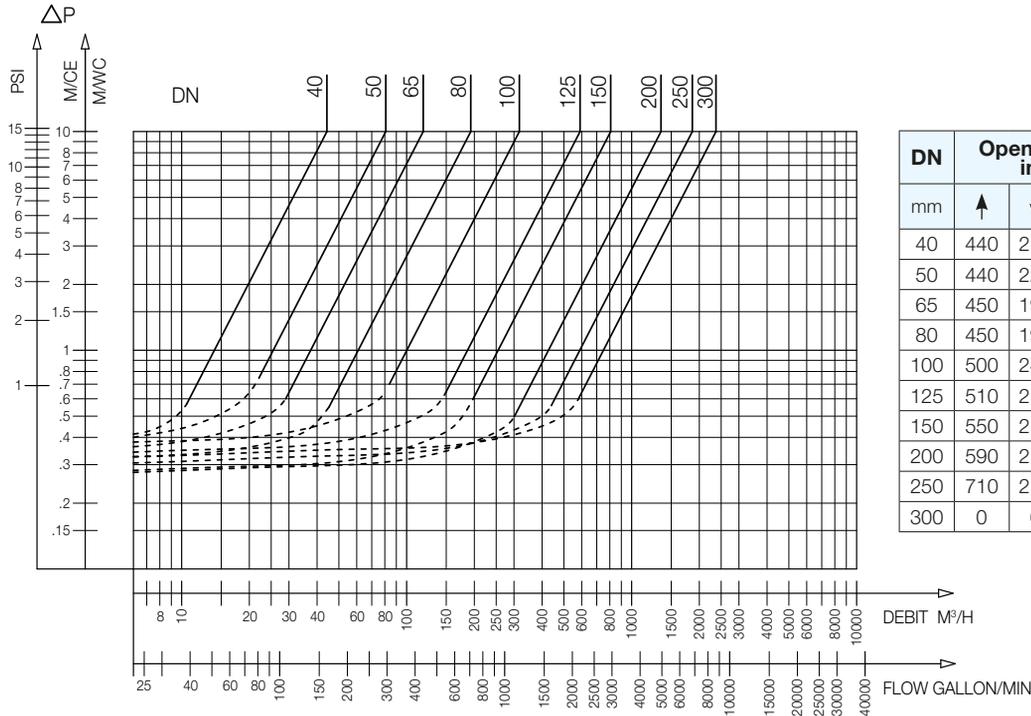
Once the reassembly done, test the device in order to check its sealing.



Operation

Direction for use :

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

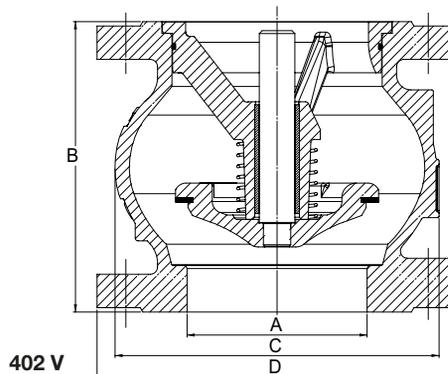


DN	Opening pressure in mm CE				Kv	ζ
	↑	↓	↔	Without spring		
40	440	210	320	120	44,20	2,10
50	440	220	330	110	80,80	1,50
65	450	190	320	130	118,50	2,00
80	450	190	320	130	192,80	1,80
100	500	240	370	130	318,00	1,60
125	510	210	360	150	590,00	1,10
150	550	210	380	170	807,50	1,25
200	590	210	400	190	1351,00	1,40
250	710	210	460	250	1861,80	1,80
300	0	0	0	0	2371,70	2,30

402 V - Headloss chart

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	220
125	200	220	250
150	230	250	285
200	289	340	340
250	354	420	405
300	396	490	460



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