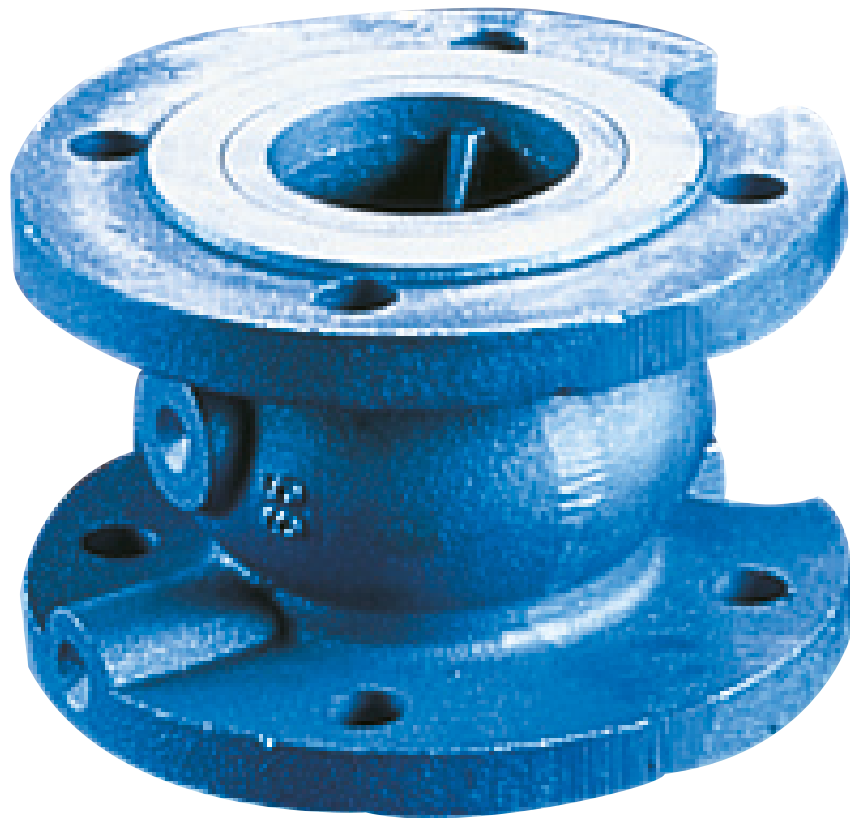


402 V

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



402 V

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 :

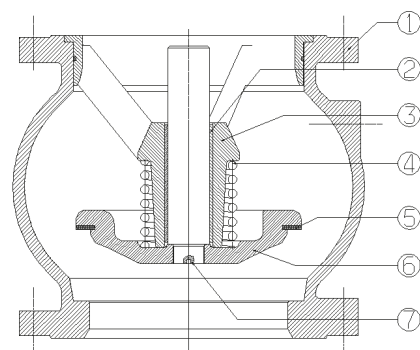
The indicated pressure for the different categories of fluids (L1/L2/G1/G2) is under no condition a guarantee of use. Therefore, it is essential to validate the use of products under given operating conditions. The operating instructions are available on our web site www.socla.com or by requesting from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

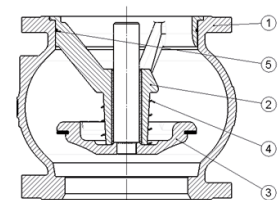
During a prolonged stoppage, a change in the state of the fluid may result in damage when the installation is brought back into service (solidification...).

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)



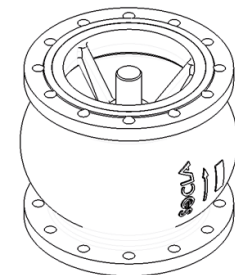
• Reassembly :

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.

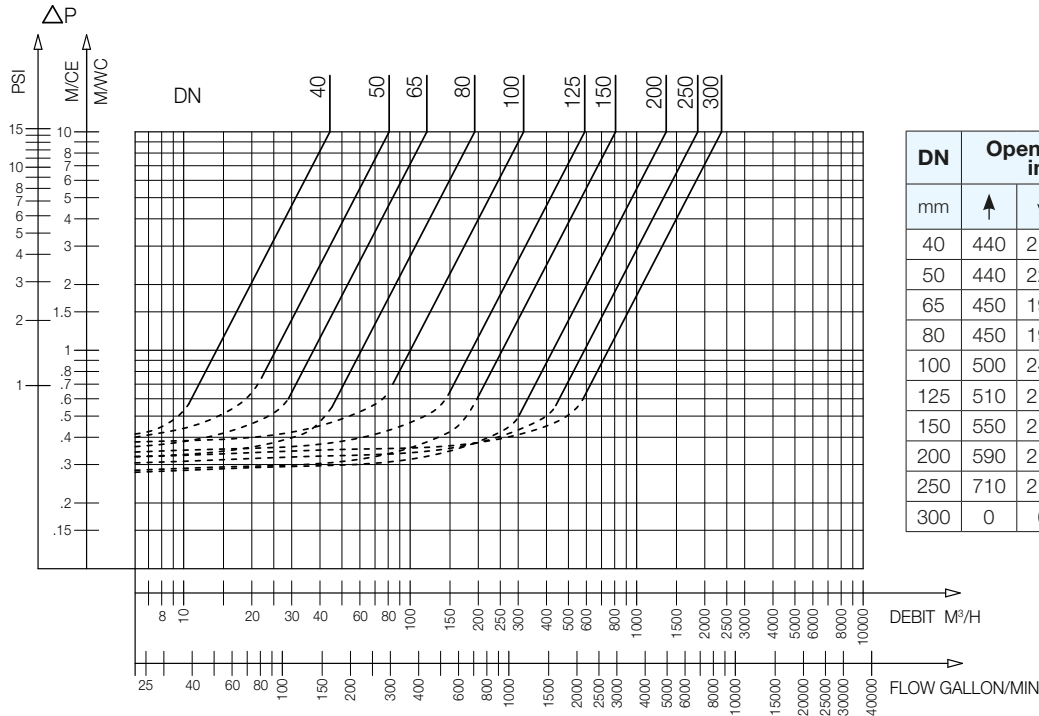
Once the reassembly done, test the device in order to check its sealing.



Operation

Direction for use :

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

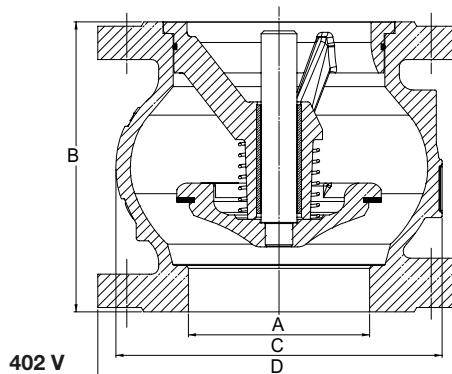


| DN | Opening pressure in mm CE | | | | Kv | ζ |
|-----|---------------------------|-----|-----|----------------|---------|------|
| | ↑ | ↓ | ↔ | Without spring | | |
| 40 | 440 | 210 | 320 | 120 | 44,20 | 2,10 |
| 50 | 440 | 220 | 330 | 110 | 80,80 | 1,50 |
| 65 | 450 | 190 | 320 | 130 | 118,50 | 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 |



402 V

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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