



Mounting Notice

for non-return valves

This installation instruction is available in the official languages of the EC on our web site or by requesting our sales department:

Deze bijsluiter is op onze website in alle officiële talen van de Europese Gemeenschap beschikbaar of door eenvoudig verzoek aan onze verkoopafdeling

Die Einbauanleitung ist auf unserer website in allen offiziellen Sprachen der Europäischen Union verfügbar oder auf einfache Anfrage bei unserer Verkaufsabteilung erhältlich

Questa nota d'istruzione è disponibile nelle lingue ufficiali della Comunità Europea al nostro sito internet oppure tramite richiesta presso il nostro ufficio commerciale

Denne installationsvejledning er tilgængelig i EU's officielle sprog på vores hjemmeside eller ved henvendelse til vores salgsafdeling.

Detta dokument finns tillgängligt på vår internet sida i alla officiella språk inom EU på efterfrågan från vårt försäljningsavdelning.

Cette Notice d'Instruction est disponible dans les langues officielles de la Communauté Européenne sous notre site internet ou sur simple demande auprès de notre service commercial.

Este Manual de Instrucciones está disponible en los idiomas oficiales de la Comunidad Europea en nuestra página web o simplemente contactando con nuestro departamento de ventas.

Este Manual de Instruções está disponível nos idiomas oficiais da Comunidade Europeia no nosso site Internet ou simplesmente contactando o nosso departamento de vendas

Tämä asennus ohje on saatavilla kaikilla EU:n virallisilla kielillä joko internet-sivuiltamme tai pyytämällä myyntiosastoltamme.

Denne installasjonsinstruks er tilgjengelig på alle offisielle EU språk på våre internettsider eller ved å forespørre vår salgsavdeling.

Οι παρούσες οδηγίες εγκατάστασης διατίθενται στις επίσημες γλώσσες της Ευρωπαϊκής Κοινότητας στον ιστότοπό μας η μέσω απλής αίτησης από το τμήμα πωλήσεων μας.

Non-return valves

Introduction

Before fitting the valve to the installation, make sure that the operating conditions are compatible with the details given on the identification plate, this instruction notice, the manufacturer's details (tariff, recommended uses, advisory service).
Socla cannot be held responsible for the malfunctioning of the valve nor for damage or injury resulting from failure to respect these details.

European Directives

Our valves subject to directives are the object of statements of conformity available from our sales department.

• **Directive 97/23/CE (Equipment under Pressure)**

Some of our valves conform to the Directive 97/23/CE Equipment under Pressure in **category I or II**.

• **Directive 89/106/CEE (Building Products)**

Valves which comply with the Directive on Building Products 89/106/CEE are identified on their identification plate (1) by reference to the standard harmonised to this directive.

➢ EN 12050-4 : Non-return option for residual water containing faeces matter and free from faeces matter.



• **Directive 94/9/CE (ATEX = EXplosive ATmospheres)**

Some of our valves conform to the Directive concerning equipment and protection systems designed for use in Explosive Atmospheres 94/9/CE. In this case the identification plate shows the logo

This directive only applies under the following atmospheric conditions:

$-20^{\circ}\text{C} < T < +60^{\circ}\text{C}$

$0,8 \text{ bar} \leq P \leq 1,2 \text{ bar}$

The media is not taken into account in the risk analysis of the valve with respect to this directive, even if this fluid may give an explosive internal atmosphere. It is the responsibility of the user to take account of the risks generated by the fluid, such as for example:

- heating of the surface of the valve (this temperature may be greater than that indicated on the different parts of the assembly).
- the generation of electrostatic charges caused by flow of the fluid,
- Internal shocks caused by granules, shock waves caused by the installation (water-hammer), or risks due to foreign bodies which may be found in the installation.

Classification of the valves :

II : group

2 : category

G : explosives atmospheres due to the presence of gas, vapour or misting

D : explosives atmospheres due to the presence of dust

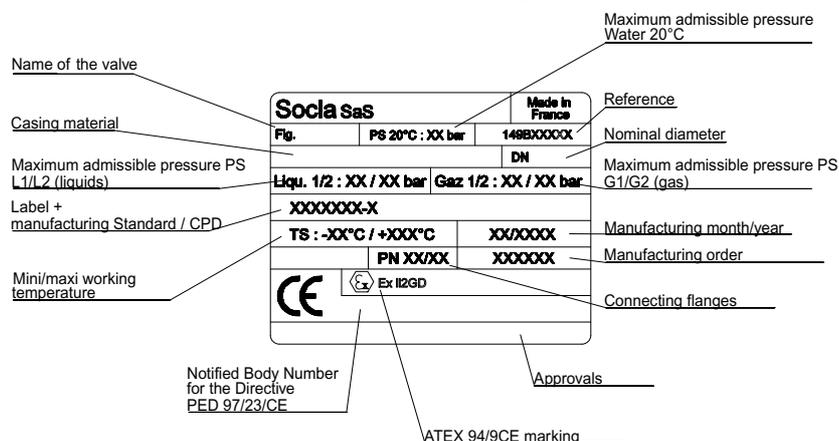
Our products are designed to be used in gas and vapour atmospheres from groups IIA, IIB and IIC.

The relevant label on our valves is: II 2 DG

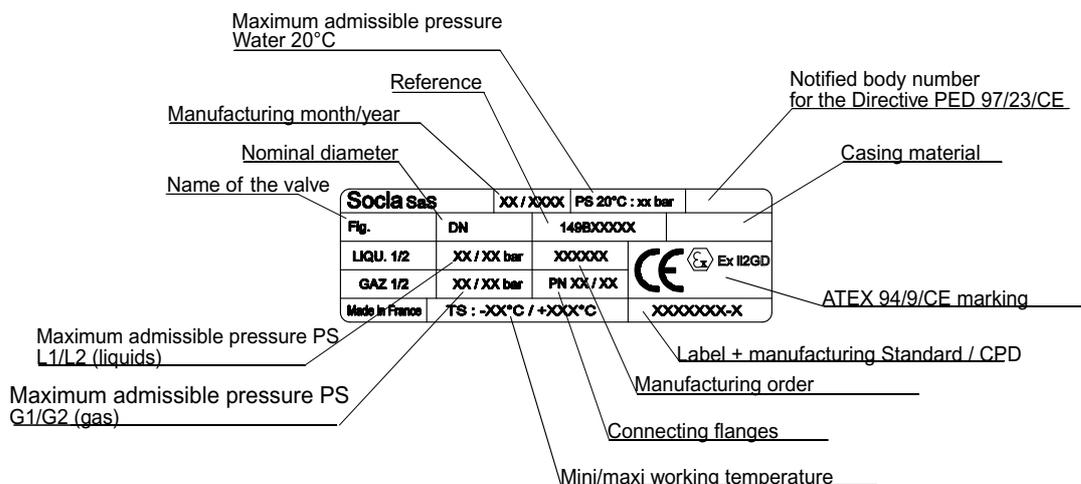
The equipment classification permits its use in a specified area. Usage in a different area is the sole responsibility of the user.

Identification Plates

This plate must not be removed from the valve and must be kept legible by the user.



Non-return valves



Fluids Group 1: dangerous fluids (directive 67/548/CEE) / explosive / extremely inflammable / easily inflammable / inflammable / very toxic / toxic / combustible.

Fluids Group 2: all other fluids (except for water supply, distribution and evacuation networks).

Test Pressure : 1,5 x PMA

Spare parts list

The components of the valves are indicated on the technical datasheets. The technical datasheets are available on our internet site <http://www.socla.com> or from our sales staff.

Transport and storage

- Before installation

The valve must not be removed from its original packaging.

The valve must be stored inside premises which are clean, dry and free from UV light.

On site, the valve must not be removed from its original packaging and must be protected from the surrounding elements (dust, sand, rain,....)

- During handling and installation

Valves which do not have lifting rings must be handled using adequate straps. These should not be liable to damage coatings on the valve casing. Any valve which has undergone a considerable impact must be returned to Socla for checking. A crack which is invisible to the naked eye may in time lead to a leak into the atmosphere.

Avoid bumping coated parts especially around the surfaces of the flange.

Non-return valves

Installation

• **General remarks**

The installation must take place under the supervision of an authorised person taking account of local safety instructions and advice.

The handling of valves must be done by staff trained in all technical aspects of their operation.

Before installation the pipes must be depressurised and purged (empty of fluid) in order to avoid any danger to the operator.

The pipe work must be correctly aligned so that no extra stress is exerted on the valve casing.

The valve is a fragile piece of equipment and must not be used to align or break the flanges of pipework.



In an ATEX zone, check that the pipework is earthed. Do not use isolating pipes (PVC etc.)

For valves of a type to be inserted between flanges, check the compatibility of the connection flanges against the operating pressure: the PN number of the flanges must be greater or equal to the operating pressure.

• **Installation position**

An arrow on the valve casing indicates the direction of the flow.

If the non-return valve has a drain plug, this should be positioned in the lower part of the valve.

If the non-return valve has an inspection plate, this should be easily accessible.

The installation positions (horizontal, vertical) of the valve are given on our technical datasheets.

• **Fitting to the pipe work**

Make sure that

- the surfaces of the flanges or other threaded or welded connections are clean and undamaged.
- the valve can be easily fitted between the flanges without damaging the surface of the flanges or joint.

Prise apart the flanges with a suitable tool (without damaging the flanges) if the fit is too tight.

- nothing interferes with the movement of the closing system while the valve is operating.

For 3 piece non-return valves which have to be welded the valve must be taken off the flanges for welding to the pipework so that it is not damaged.

On a new installation, never weld the flanges with the valve in place - risk of burning the internal components.

The flange bolts must be tightened in accordance with current regulations.



In an ATEX zone, connect the earth strap to one of the pipes upstream or downstream. Check the continuity between the valve casing and the pipe connected to the braided wire using an ohmmeter (test according to the standard EN 12266-2 annexe B, point B. 2.2.2. and B. 2.3.1). Check in addition that the pipe work is properly earthed and that the electrical connection between the two sets of pipe work (upstream/downstream) has been made.

• **Installation conditions**

It is recommended that the valve be positioned some distance from any change of direction in the pipe work or from other apparatus in order not to place it in a turbulent zone which would increase its wear. (Between 3 and 5 times the diameter in a straight line both upstream and downstream of the valve)

At the outlet of a rotodynamic pump type, it is recommended that a valve which conforms to the recommendations FD CEN/TR 13932 is installed.

Commissioning

Before putting valve into operation, check that:

- The working conditions are compatible with the details given on the identification plate, this instruction notice and the manufacturer's details (technical datasheet, price list catalogue, advisory service).

The valve works effectively when tried (check several times).

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.

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 programme for cleaning the system.



Non-return valves

Maintenance

Maintenance and repair work must be carried out by qualified personnel.

During opening and closing tests, the operator must be careful not to put fingers or any other object in the trajectory of the closing system.

Manipulate the valve and its components carefully to avoid damage.

• Removing the valve from the installation

The pipe must be depressurised and purged (emptied of its fluid) in order to avoid any danger to the operator. If the installation has carried fluids which are dangerous in themselves if in contact with the outside atmosphere (inflammable, corrosive, toxic, explosive..) it must be thoroughly cleaned to eliminate all risks.

All fluid remaining in the valve must be removed.

The temperature of the valve must be lower than 35°C to avoid all risk of burning.



If necessary, perform the operation using suitable protection (clothing, gloves, mask...).

WARNING : In the case of use in an ATEX zone, electrostatic charges may be present in the internal parts of the valve. These electrostatic charges created by the flow of the fluid may present a risk of explosion. The user is responsible for taking all possible precautions against this risk.

• Maintenance of the valve

All spare parts must be genuine Socla. All the parts in the maintenance kit must be used.

The list of spare parts are given in the technical datasheets.

The reference number of the valve and the manufacture serial number indicated on the identification plate must be quoted in any request for spare parts and during any claim or return of parts.

Using grease is not permitted in a « silicone-free » environment.

Grease must be compatible with the fluid being carried and the constraints of the installation.

After maintenance, it is recommended that the valve be re-tested by a trial under pressure at 1.5 X PMA (test P11 according to the standard EN12266-1).



In the case of use in an ATEX zone this test is compulsory.



- Check the continuity between the closing system and the free end of the braided wire using an ohmmeter (test according to the standard EN 12266-2 annexe B, point B. 2.2.2. and B.2.3.1). In the case of use in an ATEX zone this test is compulsory.

Safety

As well as the indications given in the preceding paragraphs of this notice, it is imperative that the following instructions be followed :

- This notice must be available on site where valves are installed.

- Personnel carrying out any intervention (installation ,regulation, repairs, maintenance) on the valve must be qualified for the task.



In the case of use in an ATEX zone, the personnel must be made aware of risks of explosion and have followed a specific ATEX training.



- In a case where the fluid being carried is an explosive atmosphere (known to be an internal explosive atmosphere) or might provoke an explosive atmosphere should an external leak occur, the user must check that the installation is properly sealed after assembly, following a malfunction or periodically during operation.

- Internal rules and legislation current in the country concerned with respect to health and safety at work must be applied and respected.

- The valve and its control must not undergo any modification without prior approval from our advisory service. Socla is not responsible for any damage which may be caused by the use of parts, accessories or controls which are not genuine Socla.



- In the case of use in an ATEX zone, the valve must be cleaned regularly to avoid the accumulation of dirt

- Hot or cold parts of the valve which present a danger to the operator must be protected.



- In the case of use in an ATEX zone, valves must not be fitted at the end of the line.

Do not insert fingers close to parts which are moving during its operation.



- In the case of use in an ATEX zone, do not repaint the parts after delivery.

The use of non-return valves as foot valves or at the end of the line is forbidden for fluids other than water supply, distribution and evacuation. Consult our Advisory Service for other fluids.

- Opening inspection plates or purging system while the valve is functioning is forbidden.

To carry out this type of intervention follow the paragraph "Removing the valve from the installation."



