



# Instruction Manual

## Alfa Laval Safety Valve



ESE03058-EN5

2019-05

Original manual



*The information herein is correct at the time of issue but may be subject to change without prior notice*

<b>1. EC Declaration of Conformity</b>	<b>4</b>
<b>2. Safety</b>	<b>5</b>
2.1. Important information	5
2.2. Warning signs	5
2.3. Safety precautions	5
<b>3. Installation</b>	<b>6</b>
3.1. Unpacking/delivery	6
3.2. General installation	6
3.3. Indication and control equipment (optional extras)	8
3.4. Recycling information	8
<b>4. Operation</b>	<b>9</b>
4.1. Operation	9
4.2. Fault-finding	9
4.3. Recommended cleaning	10
<b>5. Maintenance</b>	<b>12</b>
5.1. General maintenance	12
5.2. Disassembly and assembly	14
<b>6. Technical data</b>	<b>21</b>
6.1. Technical data	21
6.2. Identification	22
6.3. Setting range	23
6.4. Dimensions	24
<b>7. Parts list and service kits</b>	<b>30</b>
7.1. Standard, sizes DN25-DN100	30
7.2. Standard with inductive sensor, sizes DN25-DN100	32
7.3. Pneumatic lifting with inductive sensor, sizes DN25-DN100	34
7.4. Manual lifting, sizes DN25-DN100	36

# 1 EC Declaration of Conformity



## **Declaration of incorporation**

Translation of the original

Manufacturer / authorised representative:

KIESELMANN GmbH  
Paul-Kieselmann-Str. 4-10  
75438 Knittlingen  
Germany

Authorised representative,  
for compiling technical documents:

Achim Kauselmann  
KIESELMANN GmbH  
Paul-Kieselmann-Str. 4-10  
75438 Knittlingen  
Germany

Safety valves type		6357
Size	Pressure range	
DN 25	0,5 bar - 12,0 bar	
DN 40	0,5 bar - 12,0 bar	
DN 50	0,5 bar - 12,0 bar	
DN 65	0,5 bar - 9,0 bar	
DN 80	0,5 bar - 8,0 bar	
DN 100	0,5 bar - 3,2 bar	

The manufacturer hereby states that the above product is considered as an incomplete machine in the sense defined in the Directive 2006/42/EC on Machinery. The above product is exclusively intended to be installed into a machine or an incomplete machine. The said product does not yet conform to all the relevant requirements defined in the Directive on Machinery referred to above for this reason.

The specific technical documents listed in Appendix VII, Part B, have been prepared. The Authorized Agent empowered to compile technical documents may submit the relevant documents if such a request has been properly justified.

Commissioning of an incomplete machine must not only be carried out if it has been determined that the respective machine into which the incomplete machine is to be installed conforms to the regulations set out in the Directive on Machinery referred to above.

The above product conforms to the requirements of the directives and harmonized standards specified below:

- Directive 2014/68/EU
- DIN EN ISO 12100 Safety of machinery

Knittlingen, 14. 10. 2015

i.V. Uwe Heisswolf  
Head of Development



*Unsafe practices and other important information are emphasised in this manual.  
Warnings are emphasised by means of special signs.*

### 2.1 Important information

**Always read the manual before using the valve!**

#### WARNING

Indicates that special procedures must be followed to avoid serious personal injury.

#### CAUTION

Indicates that special procedures must be followed to avoid damage to the valve.

#### NOTE

Indicates important information to simplify or clarify procedures.

### 2.2 Warning signs

General warning:



Caustic agents:



### 2.3 Safety precautions

#### Installation:

**Always** observe the technical data (see chapter 6 Technical data).  
**Always** release compressed air after use.



#### Operation:

**Always** observe the technical data (see chapter 6 Technical data).  
**Never** touch the valve or the pipelines when processing hot liquids or when sterilising.



**Always** handle lye and acid with great care.



#### Maintenance:

**Always** observe the technical data (see chapter 6 Technical data).  
**Always** release compressed air after use.  
The valve must **never** be hot when servicing it.  
The valve/actuator and the pipelines must never be pressurised when servicing the valve/actuator.  
**Never** stick your fingers through the valve ports if the valve is supplied with compressed air.  
**Always** use Alfa Laval genuine spare parts. The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts



#### Transportation:

**Always** ensure that compressed air is released.  
**Always** ensure that all connections are disconnected before attempting to remove the valve from the installation.  
**Always** drain liquid out of valves before transportation.  
**Always** use predesignated lifting points if defined.  
**Always** secure sufficient fixing of the valve during transportation - if specially designed packaging material is available it must be used.

## 3 Installation

*The instruction manual is part of the delivery.  
Study the instructions carefully.  
The items refer to the parts list and service kits section.*

### 3.1 Unpacking/delivery

#### Step 1

##### CAUTION

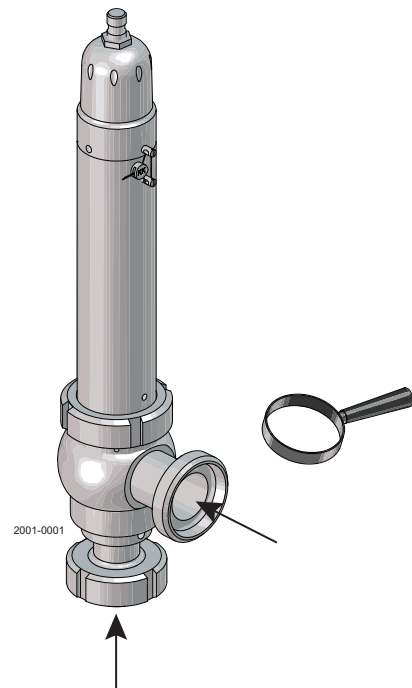
Alfa Laval cannot be held responsible for incorrect unpacking.

#### Check the delivery:

1. Complete valve.
2. Delivery note.

#### Step 2

1. Clean the valve of possible packing materials.
2. Inspect the valve for visible transport damage.
3. Avoid damaging air and pipe connections.



### 3.2 General installation

#### Step 1



**Always** read the technical data thoroughly.  
See chapter 6 Technical data



**Always** release compressed air after use.

##### CAUTION

Alfa Laval cannot be held responsible for incorrect installation.

*The instruction manual is part of the delivery.  
Study the instructions carefully.  
The items refer to the parts list and service kits section.*

### Step 2

Avoid stressing the valve as this can cause deformation of the sealing area and malfunction of the valve (leakage or faulty indication).

Pay special attention to:

- Vibrations
- Thermal expansion of the tubes
- Excessive welding
- Overloading of the pipelines

### Fittings:

Ensure that the connections are tight.

### Air connection of actuator:

Connect compressed air correctly.

### Pay special attention to warnings!

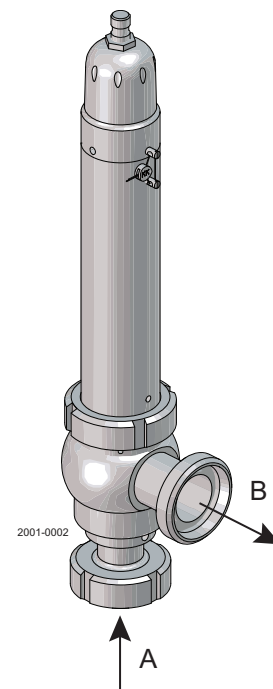
### Step 3

Preferably, the safety valve should be installed vertically on connection "A".

If mounted horizontal the set pressure will be a bit lower than specified due to the missing weight of the piston. Highest effect on DN80 and DN100. Safety valves with a set pressure of  $\leq 0.5$  bar are generally installed vertically.

The valve should be installed so that no fluids remain in the housing.

External dynamic effects caused by installation must be avoided.



## 3 Installation

*Study the instructions carefully.*

### 3.3 Indication and control equipment (optional extras)

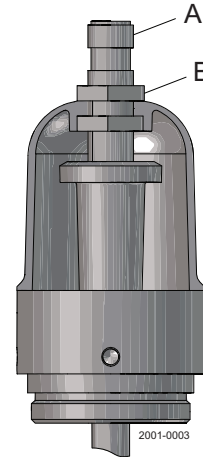
#### CAUTION!

The indication and control equipment must be electrically installed by authorised personnel only.

- Inductive proximity switches:

It is recommended to adjust the sensor (A) so it will give feedback when the valve is closed.

Lock the sensor with the nut (B).



#### Sensor data:

Type: Inductive IFT 217

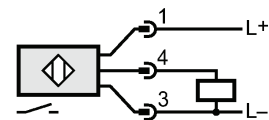
Thread (A): M12x1

Electrical design: DC PNP

Operating voltage[V]: 10..36 DC

Output function: Normally open

Connection cables - see "Automation/accessories" in our "Close at hand" catalogue.



#### Function:

In closed position the sensor is adjusted to give a feedback signal.

When piston raises up the sensor dips into the sleeve and loses the feedback signal.

### 3.4 Recycling information

#### Unpacking

- Packing material consists of wood, plastics, cardboard boxes and in some cases metal straps.
- Wooden and cardboard boxes can be reused, recycled or used for energy recovery.
- Plastics should be recycled or burnt at a licensed waste incineration plant.
- Metal straps should be sent for material recycling.

#### Maintenance

- During maintenance, oil and wear parts in the machine are replaced.
- All metal should be sent for material recycling.
- Worn out or defective electronic parts should be sent to a licensed handler for material recycling.
- Oil and all non-metal wear parts must be taken care of in agreement with local regulations.

#### Scrapping

- At the end of use, the equipment shall be recycled according to relevant local regulations. Besides the equipment itself, any hazardous residues from the process liquid must be considered and dealt with in a proper manner. When in doubt, or in the absence of local regulations, please contact your local Alfa Laval sales company.

Study the instructions carefully and pay special attention to the warnings!  
The valve is automatically or manually operated by means of an actuator or a handle.

### 4.1 Operation

#### Step 1



**Always** read the technical data thoroughly.  
(see chapter 6 Technical data)

#### CAUTION

Alfa Laval cannot be held responsible for incorrect operation.

#### Step 2

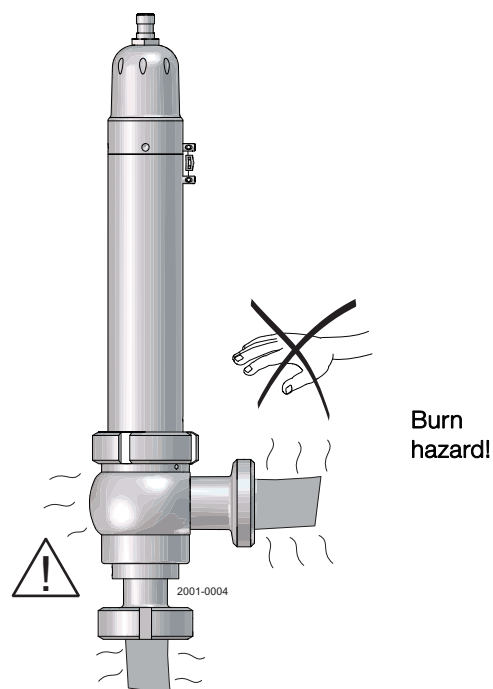


**Never** touch the valve or the pipelines when processing hot liquids or when sterilising.

The safety valve is used to prevent inadmissible overpressures of fluid media in tanks, containers and plant sections. Generally, the set pressure is greater than the operating pressure.

The valve is sprung open if the operating pressure increases and reaches the set pressure.

In the case of a pressure increase, the flow rate is kept constant depending on the max. permissible operating pressure.



### 4.2 Fault-finding

#### NOTE

Study the maintenance instructions carefully before replacing worn parts - see section 5.1 General maintenance

Problem	Cause/result	Repair
Internal leakage	Worn O-rings	Replace the O-rings
External leakage	Worn flange O-rings Worn stem sealing unit	Replace all seals
Valve cannot be activated (pneumatic)	Air pressure too low. Incorrect elastomer material (swelling)	Check and correct air pressure Select another elastomer-sealing material grade

## 4 Operation

*The valve is designed for cleaning in place (CIP).*

*Study the instructions carefully and pay special attention to the warnings!*

*NaOH = Caustic soda.*

*HNO<sub>3</sub> = Nitric acid.*

### 4.3 Recommended cleaning

#### Step 1



**Always** handle lye and acid with great care.

**Caustic danger!**



**Always** use  
rubber gloves!

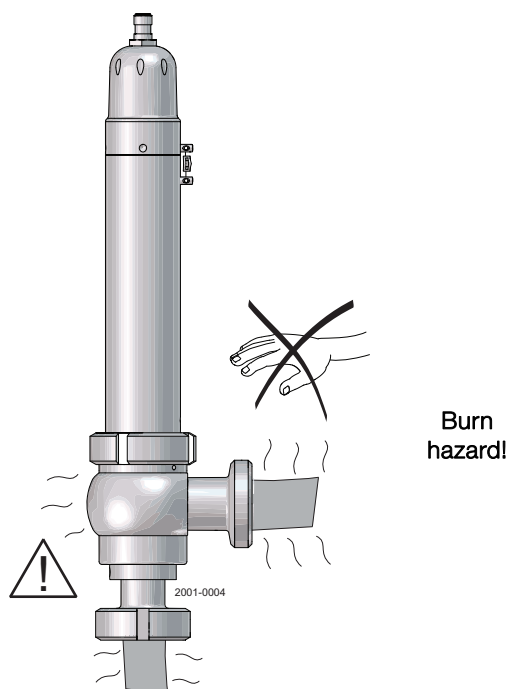


**Always** use  
protective goggles!

#### Step 2



**Never** touch the valve or the pipelines when sterilising.



#### Step 3

**Examples of cleaning agents:**

Use clean water, free from chlorides.

1. 1% by weight NaOH at 70°C

1 kg (2.2 lbs) NaOH	+	100 l (26.4 gal) water	= Cleaning agent.
------------------------	---	---------------------------	-------------------

2. 0.5% by weight HNO<sub>3</sub> at 70°C (158°F)

0.7 l (0.18 gal) 53% HNO <sub>3</sub>	+	100 l (26.4 gal) water	= Cleaning agent.
--	---	---------------------------	-------------------

2.2 l (0.58 gal) 33% NaOH	+	100 l (26.4 gal) water	= Cleaning agent.
------------------------------	---	---------------------------	-------------------

---

*The valve is designed for cleaning in place (CIP).*

*Study the instructions carefully and pay special attention to the warnings!*

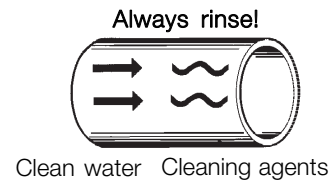
*NaOH = Caustic soda.*

*HNO<sub>3</sub> = Nitric acid.*

---

### Step 4

1. Avoid excessive concentration of the cleaning agent.  
⇒ Dose gradually
2. Adjust the cleaning flow to the process.  
⇒ Sterilisation of milk/viscous liquids  
⇒ Increase the cleaning flow
3. **Always** rinse well with clean water after the cleaning.



### CAUTION!

The cleaning agents must be stored/disposed of in accordance with current rules/directives.

---

To secure optimum cleaning of the cavity between valve during the cleaning cycle, please follow the recommendations below

#### Standard version:

It is not possible to clean the valve inside the valve cavity.

#### Pneumatic version:

Supply air to the air connection when cleaning the valve.

#### Manual override version:

Turn the handle 180 degrees when cleaning the valve

---

## 5 Maintenance

Maintain the valve and the actuator carefully.

Study the instructions carefully and pay special attention to the warnings!

**Always** use Alfa Laval genuine spare parts, and keep service kits in stock.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 5.1 General maintenance

#### Step 1



**Always** read the technical data thoroughly.

See chapter 6 Technical data



**Always** release compressed air after use.

#### NOTE

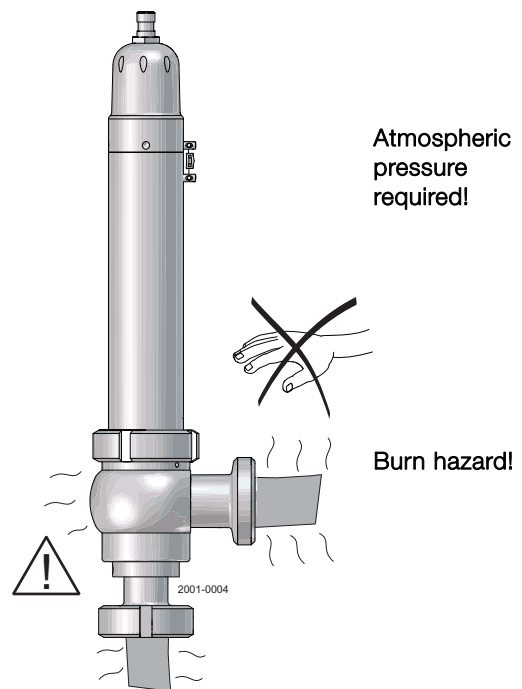
All scrap must be stored/discharged in accordance with current rules/directives.

#### Step 2



**Never** service the valve when it is hot.

The valve/actuator and the pipelines must **never** be pressurised when servicing the valve/actuator.



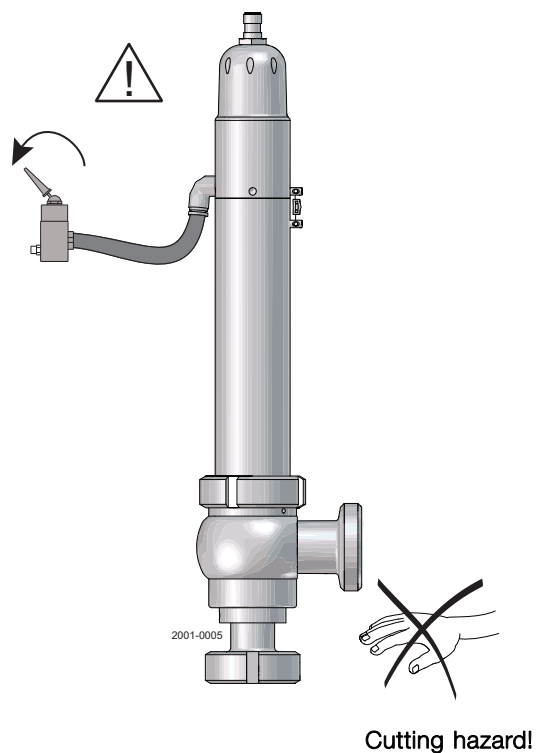
#### Step 3



**Never** stick your fingers through the valve ports if the actuator is supplied with compressed air.

The maintenance intervals depend on the operating conditions.

- Temperature and temperature intervals
- Product and cleaning medium
- Pressure and opening frequency



*Maintain the valve and the actuator carefully.*

*Study the instructions carefully and pay special attention to the warnings!*

**Always** use Alfa Laval genuine spare parts, and keep service kits in stock.

*The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.*

### NOTE!

#### Lubrication recommendation

Material	Lubricant
EPDM, Viton, NBR, HNBR	Klüber Paraliq GTE703*
Silicone	Klüber Sintheso pro AA2*
Thread	Interflon Food*

\*) It is only permitted to use approved lubricants if the respective fitting is used for the production of food or drink. Please observe the relevant safety data sheets of the manufacturers of lubricants.

#### Recommended spare parts:

Service kits - see section 7 Parts list and service kits

Order service kits from the service kits list - see section 7 Parts list and service kits

Product wetted seals	
Preventive maintenance	Replace after 12 months
Maintenance after leakage (leakage normally starts slowly)	Replace at the end of the day
Planned maintenance	<ul style="list-style-type: none"> <li>- Regular inspection for leakage and smooth operation</li> <li>- Keep a record of the valve</li> <li>- Use the statistics for planning of inspections and future maintenance.</li> </ul>

## 5 Maintenance

*Study the instructions carefully.*

*The items refer to the parts list and service kits section - see section 7 Parts list and service kits.*

### 5.2 Disassembly and assembly

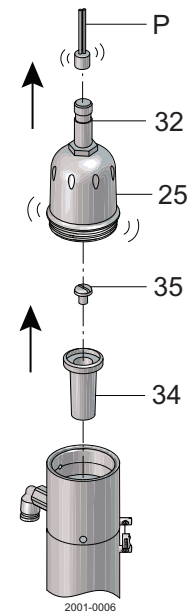
#### Step 1

##### DN25 - Replacement the product wetted seals

1. Remove electrical lines, sensor mounting and control air!
2. Unscrew the electrical lines (P) from sensor (32).
3. Unscrew hood (25).
4. Unscrew the screw (35) and remove the bracket (34).

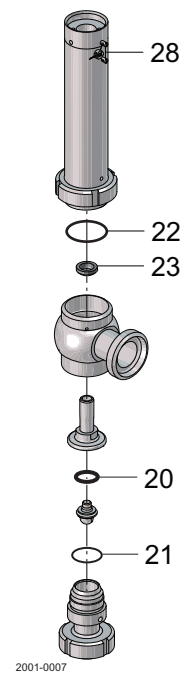
##### For pneumatic version

5. Dismantle the circlip (19) and remove the disc (18).



#### NOTE

Without removing the sealing (28) and changing the set pressure the following seals are replaced:  
Shaft sealing (23), O-rings (20), (21) and (22).

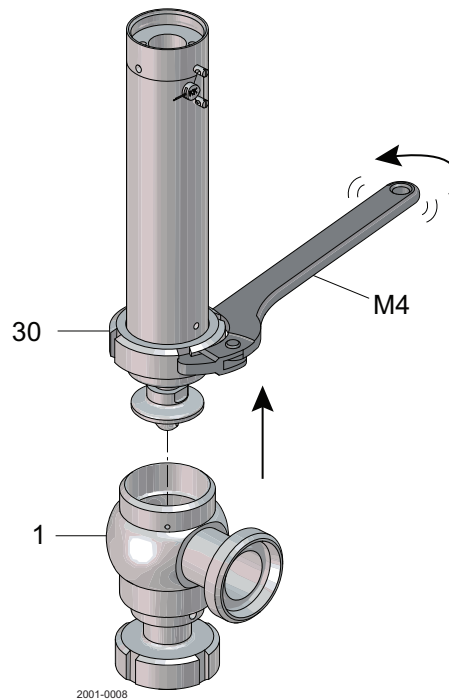


*Study the instructions carefully.*

*The items refer to the parts list and service kits section - see section 7 Parts list and service kits.*

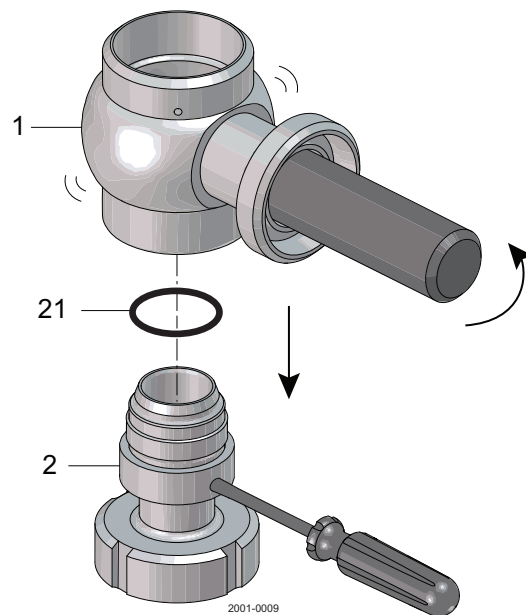
### Step 2

1. Unscrew the slotted nut (30) from the housing (1) with a hook wrench (M4).
2. Dismantle the complete valve insert from the housing (1).



### Step 3

Unscrew the housing (1) from the screw in socket (2) and remove the O-ring (21).



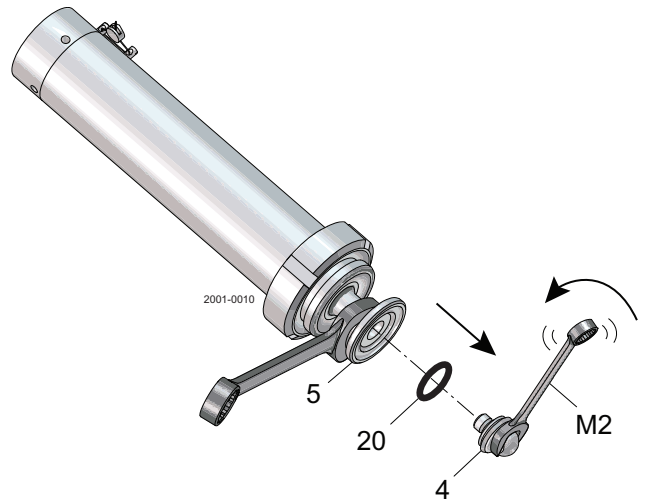
## 5 Maintenance

*Study the instructions carefully.*

*The items refer to the parts list and service kits section - see section 7 Parts list and service kits.*

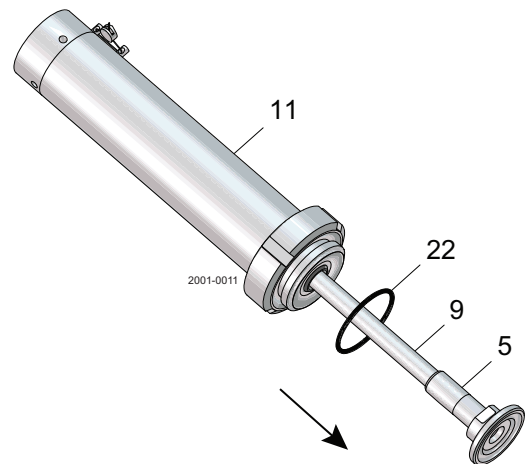
### Step 4

1. Unscrew the piston plate (4) from the piston (5).
2. Remove O-ring (20).



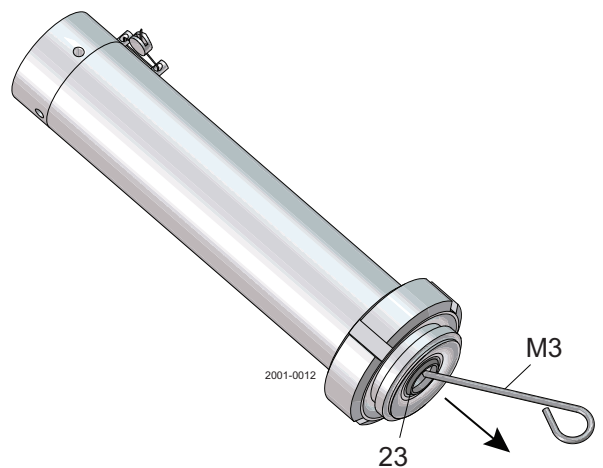
### Step 5

1. Remove the piston (5) and piston rod (9) axially out of the housing (11).
2. Remove O-ring (22).



### Step 6

Puncture the shaft sealing (23) at the centre with a pointed tool (M3) and remove it from the groove.



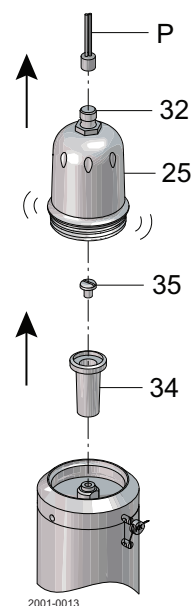
*Study the instructions carefully.*

*The items refer to the parts list and service kits section - see section 7 Parts list and service kits.*

### DN40-100 - Replacement the product wetted seals

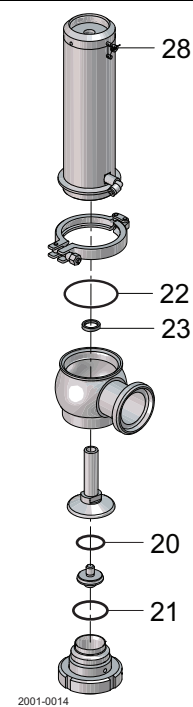
#### Step 1

1. Remove electrical lines, sensor mounting and control air.
2. Unscrew the electrical liner (P) from sensor (32).
3. Unscrew the screw (35) and remove bracket (34).



#### Step 2

Without removing the sealing (28) and changing the set pressure the following seals are replaced, Shaft sealing (23), O-rings (20), (21) and (22).



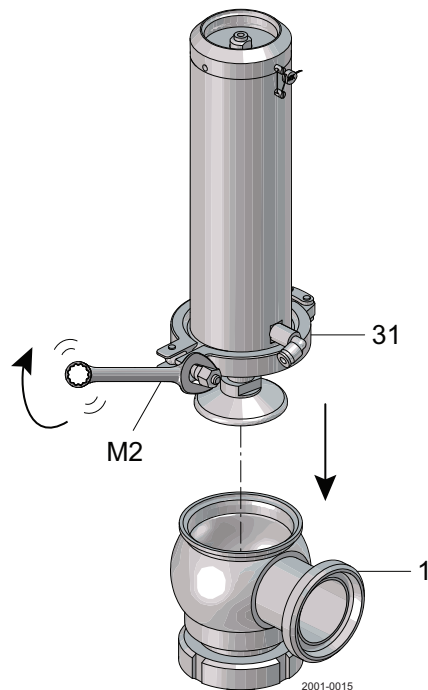
## 5 Maintenance

*Study the instructions carefully.*

*The items refer to the parts list and service kits section - see section 7 Parts list and service kits.*

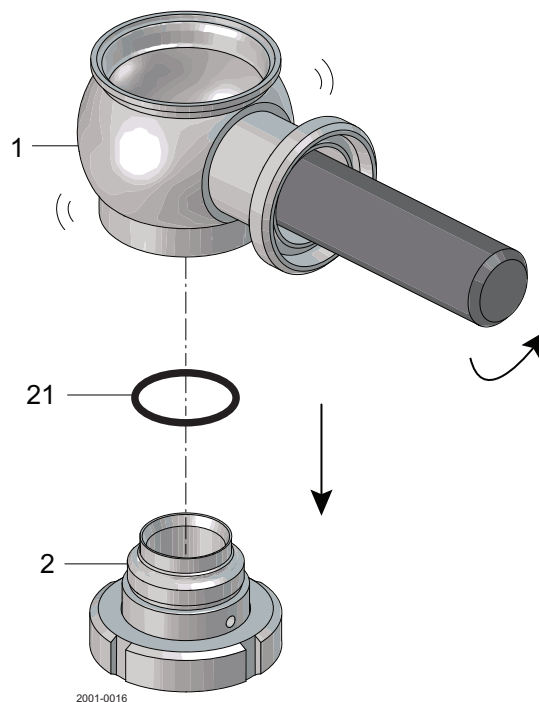
### Step 3

1. Unscrew the clamp coupling (31).
2. Dismantle the complete valve insert from the housing (1).



### Step 4

Unscrew housing (1) from the screw-in socket (2) and remove the O-rings (21).

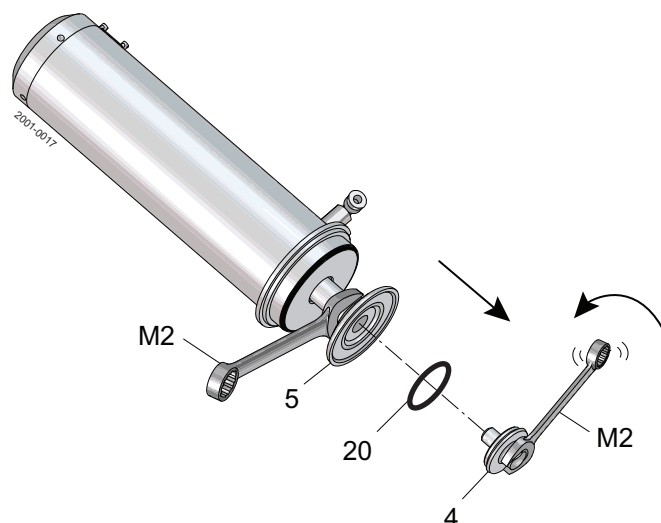


*Study the instructions carefully.*

*The items refer to the parts list and service kits section - see section 7 Parts list and service kits.*

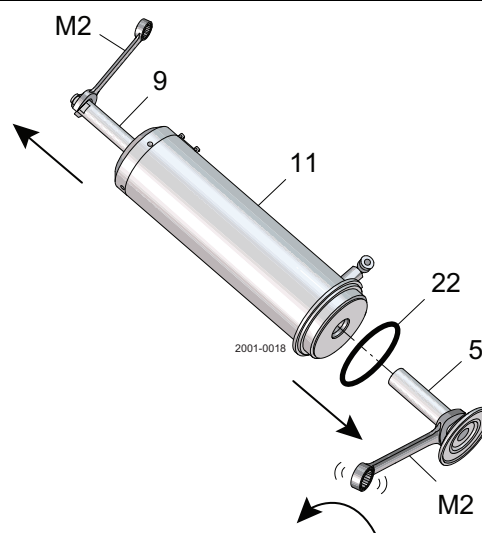
### Step 5

1. Unscrew the piston plate (4) from the piston (5).
2. Remove O-ring (20).



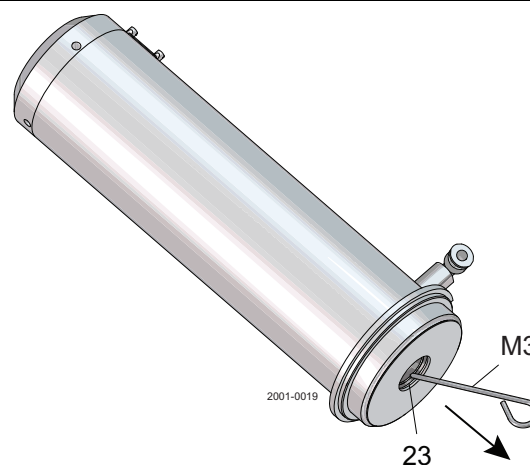
### Step 6

1. Unscrew the piston plate (5) from the piston rod (9).
2. Remove the piston (5) and piston rod (9) axially out of the housing (11).
3. Remove O-ring (22).



### Step 7

Puncture the shaft sealing (23) at the centre with a pointed tool (M3) and remove it from the groove.



## 5 Maintenance

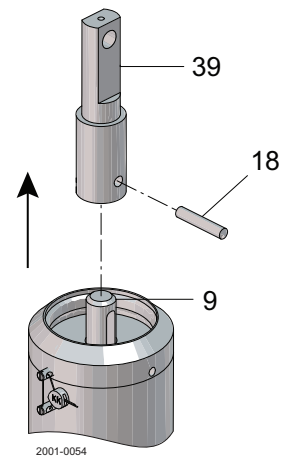
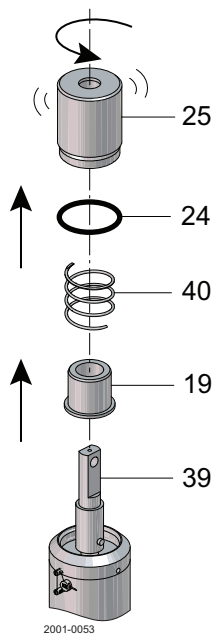
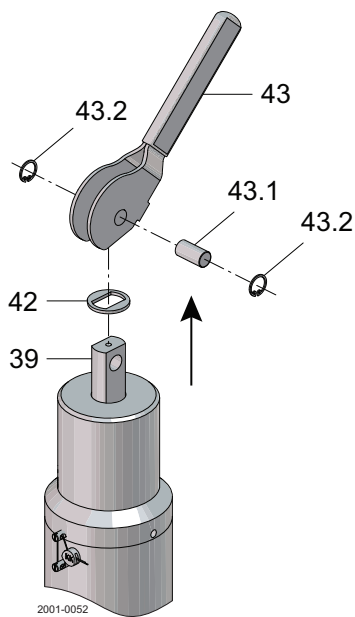
*Study the instructions carefully.*

*The items refer to the parts list and service kits section - see section 7 Parts list and service kits.*

### Disassemble - manual lifting only

#### Step 1

1. Dismantle the circlip (43.2) and remove the pin (43.1) from the lever (43).
2. Pull off the lever (43) from the rod (39) and remove the disc (42).
3. Unscrew the hood (25).
4. Remove O-ring (24), pressure spring (40) and spring guide (19).
5. Dismantle the pin (18) and remove the rod (39) from the piston (9).



*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*

### 6.1 Technical data

The Alfa Laval Safety Valve is a spring loaded safety valve used to prevent overpressures in tanks and vessels in the dairy, food and beverage, and biopharm industries to reliably avoid damages to human beings and equipment. It is used to prevent inadmissible over pressures of fluids in tanks, containers and plant sections. From the factory the valve is configured with a set pressure upon request that is greater than the operating pressure. The valve opens against a spring force if the operating pressure increases the set pressure. Preferably, the Alfa Laval Safety Valve should be installed vertically.

Valve	
Size	DN25-DN100
Connection standard	Liner/nut - male DIN11851
Connection option	Flange or clamp
Temperature ambient	+4° C to +45°C
Temperature product	+4° C to +95°C medium-dependent
Max. sterilisation temperature, EPDM	+140°C (SIP 30 min.)
Max. sterilisation temperature, HNBR	+130°C (SIP 30 min.)
Max. sterilisation temperature, FKM	+140°C (SIP 30 min.)
Actuator	
Operating air pressure	5.5-8.0 bar
Materials	
Product wetted steel parts	1.4404/AISI 316L
Other steel parts	1.4301/AISI304
Surface quality, product wetted parts	Ra 0.8 µm
External surface finish	Ra 1.5-2.5 µm e-pol
Product wetted seals, standard	EPDM (FDA)
Product wetted seals, option	HNBR (FDA), FKM (FDA)

#### Noise

One metre away from – and 1.6 metres above – the exhaust, the noise level of a valve actuator will be approximately 77 dB(a) without a noise damper and approximately 72 dB(a) with a damper, measured at an air pressure of 7 bar.

## 6 Technical data

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*

### 6.2 Identification

The image shows a technical data plate for a valve. The plate contains the following information:

- A:** Logo (ALFA LVAL)
- B:** Order No. #####/###
- C:** Valve No. #####
- D:** Type No. 6357#####
- E:** Size DN ### A<sub>o</sub> #### mm<sup>2</sup>
- F:** K<sub>dr</sub> ### -L, Lift ### mm
- G:** T<sub>s</sub> +5/+100°C
- H:** 2001-0059
- I:** CE 0036
- J:** EN ISO 4126-1
- K:** EAC
- L:** MM/YYYY
- M:** AISI 316L
- N:** p<sub>set</sub> ## bar
- O:** K<sub>dr</sub> ### -G
- P:** Produced by KIESELMANN GmbH, Paul-Kieselmann-Str. 4-10, 75348 Knittlingen, GERMANY
- Q:** Manufacturer

Legend:

- A. Logo
- B. Order number
- C. Valve number
- D. Manufacturer number
- E. Size
- F. Coefficient of discharge (L = Liquid)
- G. Temperature
- H. Lift
- I. CE-Designation (notified body)
- J. Applicable standards
- K. Approval according to EAC
- L. Date of manufacture
- M. Material
- N. Narrowest flow area
- O. Set pressure
- P. Coefficient of discharge (G = gas)
- Q. Manufacturer

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*

### 6.3 Setting range

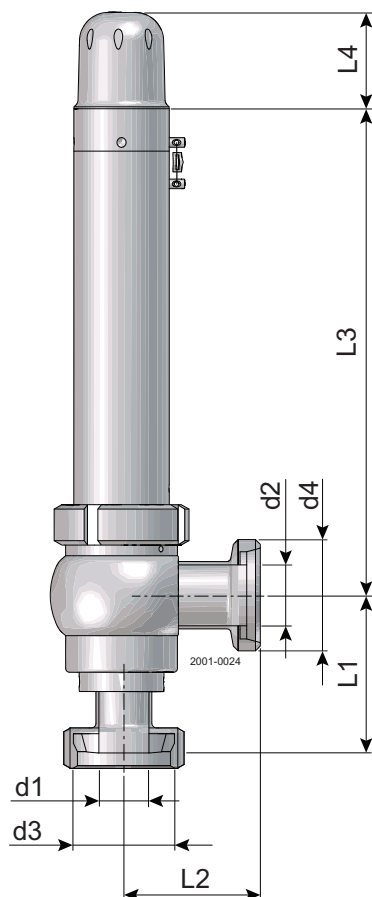
Nominal pipe size Seal: EPDM	Setting range [bar]	Narrowest flow area DO [mm]	Inlet d2 [mm]	Outlet d1 [mm]	$\alpha$ -value K <sub>dr</sub> -L (liquid)	$\alpha$ -value K <sub>dr</sub> -G (gas)
DN25	0.2-0.9 1.0-1.5 1.6-2.0 2.1-2.5 2.6-3.0 3.1-4.5 4.6-7.0 7.1-12.0	26	26	32	0.38 0.41 0.42 0.44 0.41 0.47 0.45 0.40	0.43 0.43 * * * * * *
DN40	0.2-1.0 1.1-1.4 1.5-2.4 2.5-3.0 3.1-4.4 4.5-7.0 7.1-12.0	32	32	38	0.50 0.39 0.46 0.48 0.38 0.44 0.35	0.55 0.50 0.50 0.50 0.43 0.43 0.30
DN50	0.2-0.9 1.0-1.4 1.5-1.7 1.8-2.9 3.0-6.0 6.1-7.9 8.0-9.9 10.0-12.0	38	38	50	0.55 0.52 0.61 0.65 0.52 0.41 0.44 0.48	0.55 0.50 0.55 0.60 0.50 0.35 0.35 0.35
DN65	0.2-0.9 1.0-1.5 1.6-2.0 2.1-3.0 3.1-7.0 7.1-9.0	50	50	66	0.39 0.52 0.49 0.54 0.54 0.53	0.42 0.55 0.52 0.46 0.46 0.46
DN80	0.3-0.9 1.0-1.9 2.0-3.3 3.4-4.3 4.4-6.2 6.3-8.0	66	66	81	0.47 0.50 0.50 0.50 0.43 0.50	0.47 0.45 0.45 0.44 0.36 0.36
DN100	0.3-1.1 1.2-1.8 1.9-2.4 2.5-3.2	81	81	100	0.36 0.37 0.37 0.44	0.41 0.41 0.32 0.32

\* = not available

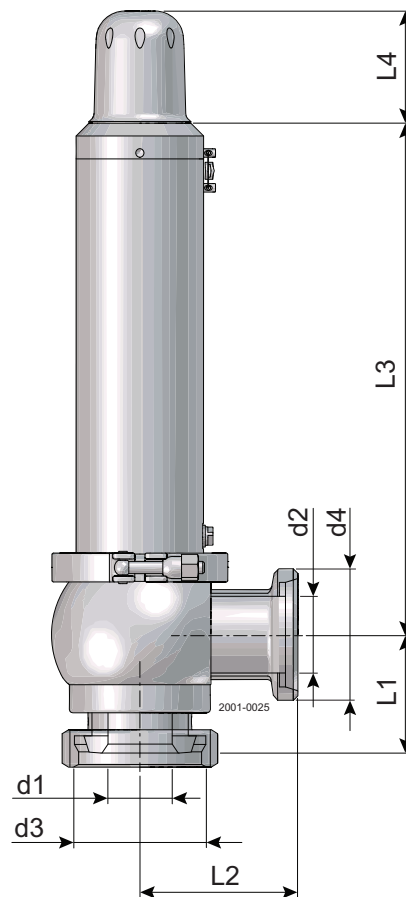
## 6 Technical data

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*

### 6.4 Dimensions



Standard - DN25

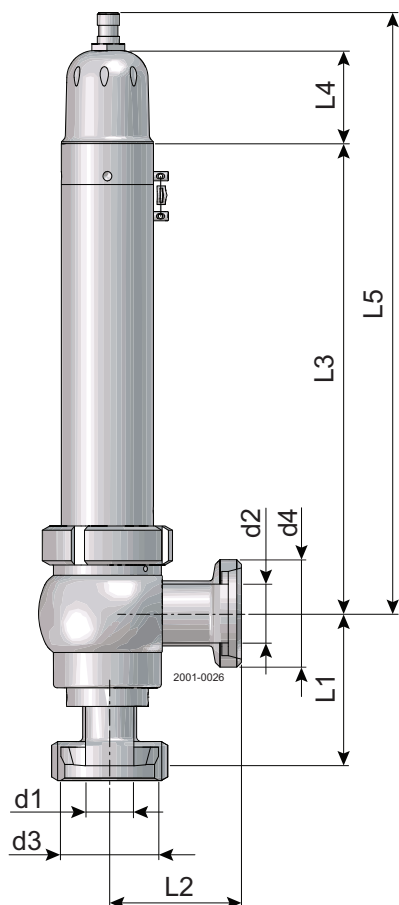


Standard - DN40-DN100

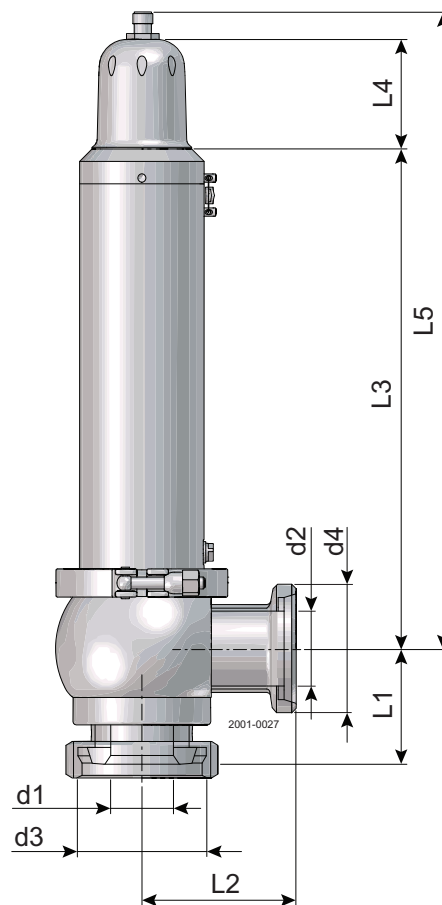
Size	d1	d2	d3	d4	L1	L2	L3	L4	Kg
DN25	26	32	Rd52x1/6	Rd58x1/6	82	72	253	50	6.8
DN40	32	38	Rd65x1/6	Rd65x1/6	68	82	255	66	9.1
DN50	38	50	Rd78x1/6	Rd78x1/6	70	93	301	66	1.3
DN65	50	66	Rd95x1/6	Rd95x1/6	85	105	402	66	15
DN80	66	81	Rd110x1/4	Rd110x1/4	100	115	407.5	66	22
DN100	81	100	Rd130x1/4	Rd130x1/4	130	130	418	66	28.2

## 6 Technical data

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*



Standard with inductive sensor - DN25

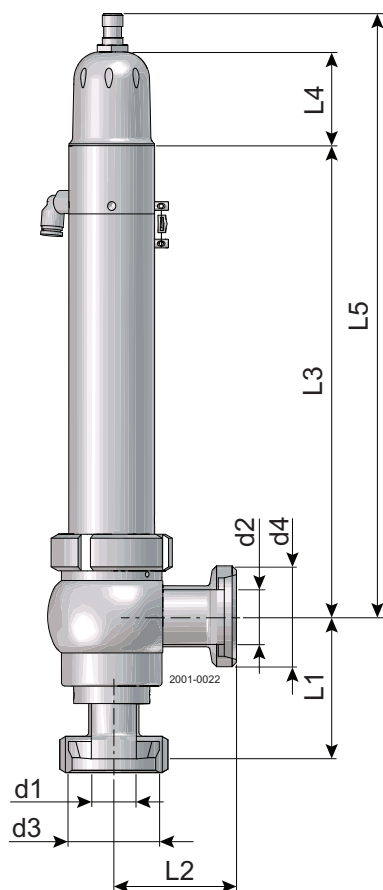


Standard with inductive sensor - DN40-DN100

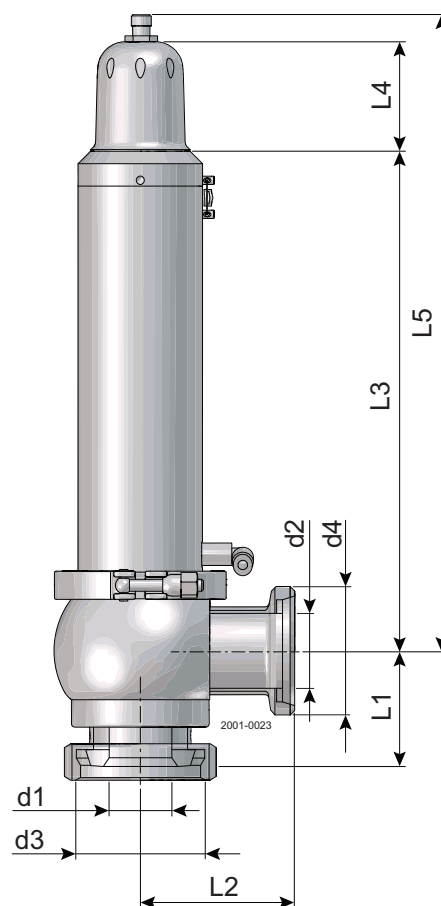
Size	d1	d2	d3	d4	L1	L2	L3	L4	L5	Kg
DN25	26	32	Rd52x1/6	Rd58x1/6	82	72	253	50	324	6.8
DN40	32	38	Rd65x1/6	Rd65x1/6	68	82	255	66	338	9.1
DN50	38	50	Rd78x1/6	Rd78x1/6	70	93	301	66	384	1.3
DN65	50	66	Rd95x1/6	Rd95x1/6	85	105	402	66	484	15
DN80	66	81	Rd110x1/4	Rd110x1/4	100	115	407.5	66	489	22
DN100	81	100	Rd130x1/4	Rd130x1/4	130	130	418	66	501	28.2

## 6 Technical data

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*



Pneumatic lifting with inductive sensor - DN25

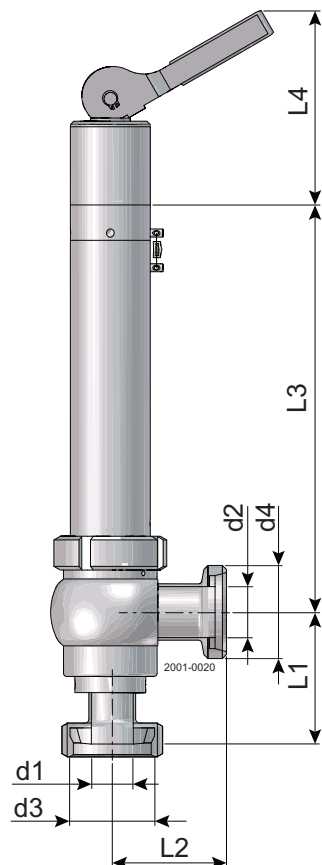


Pneumatic lifting with inductive sensor - DN40-DN100

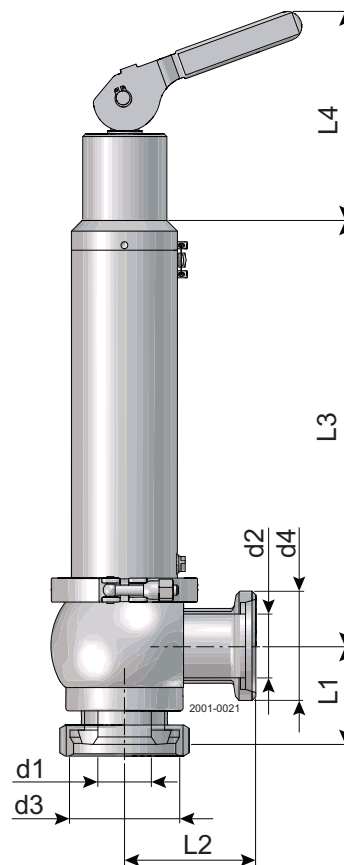
Size	d1	d2	d3	d4	L1	L2	L3	L4	L5	Kg
DN25	26	32	Rd52x1/6	Rd58x1/6	82	72	253	50	324	6.8
DN40	32	38	Rd65x1/6	Rd65x1/6	68	82	255	66	338	9.1
DN50	38	50	Rd78x1/6	Rd78x1/6	70	93	301	66	384	1.3
DN65	50	66	Rd95x1/6	Rd95x1/6	85	105	402	66	484	15
DN80	66	81	Rd110x1/4	Rd110x1/4	100	115	407.5	66	489	22
DN100	81	100	Rd130x1/4	Rd130x1/4	130	130	418	66	501	28.2

## 6 Technical data

*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*



Manual lifting - DN25

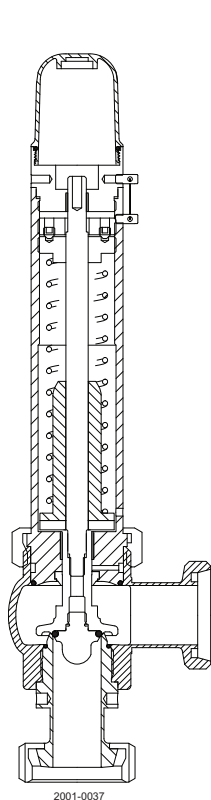


Manual lifting - DN40-DN100

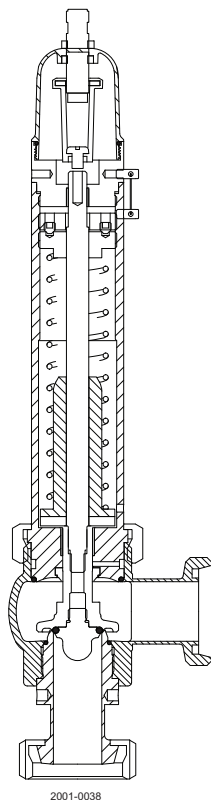
Size	d1	d2	d3	d4	L1	L2	L3	L4	Kg
DN25	26	32	Rd52x1/6	Rd58x1/6	82	72	253	141-182	7.5
DN40	32	38	Rd65x1/6	Rd65x1/6	68	82	255	152-232	10.3
DN50	38	50	Rd78x1/6	Rd78x1/6	70	93	301	154-234	15.5
DN65	50	66	Rd95x1/6	Rd95x1/6	85	105	402	153-233	16.2
DN80	66	81	Rd110x1/4	Rd110x1/4	100	115	407.5	152.5-232.5	23.2
DN100	81	100	Rd130x1/4	Rd130x1/4	130	130	418	152-232	29.6

## 6 Technical data

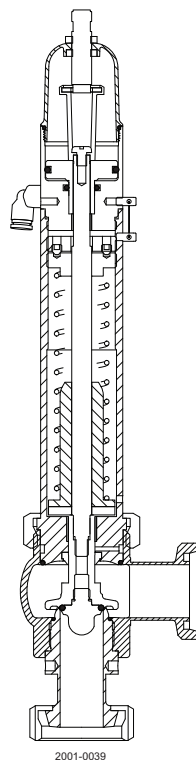
*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*



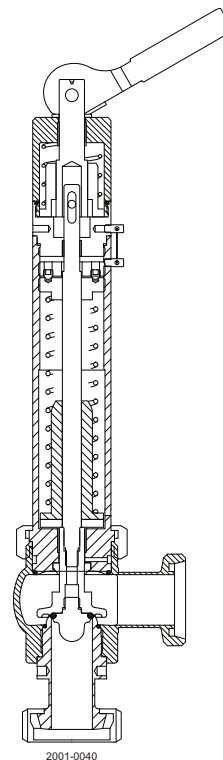
Standard



Standard with inductive  
sensor



Pneumatic lifting  
with inductive sensor



Manual lifting

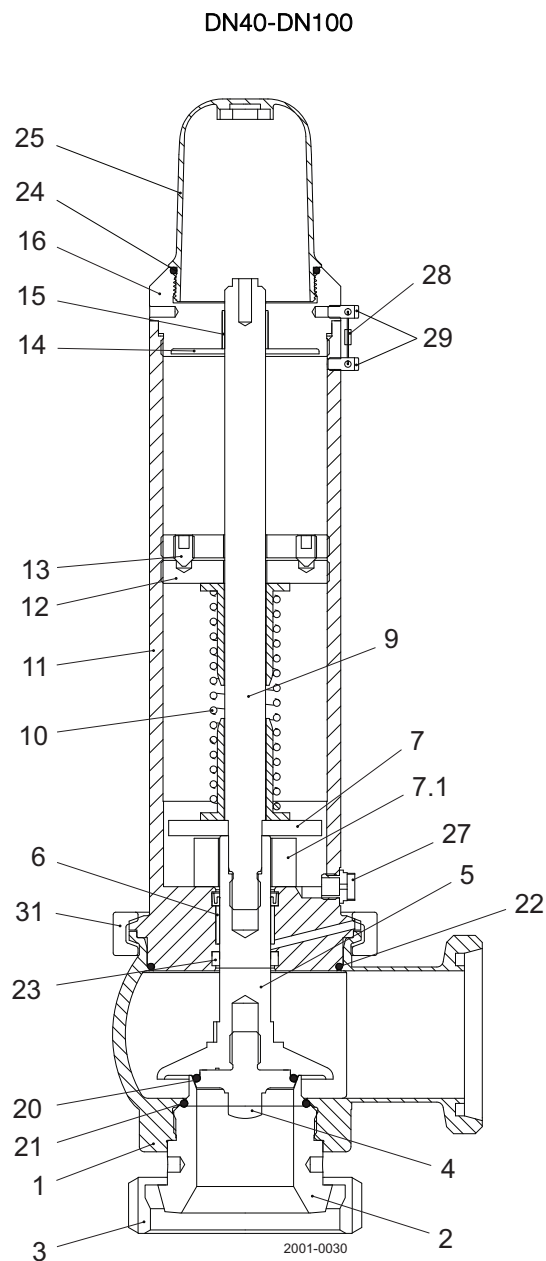
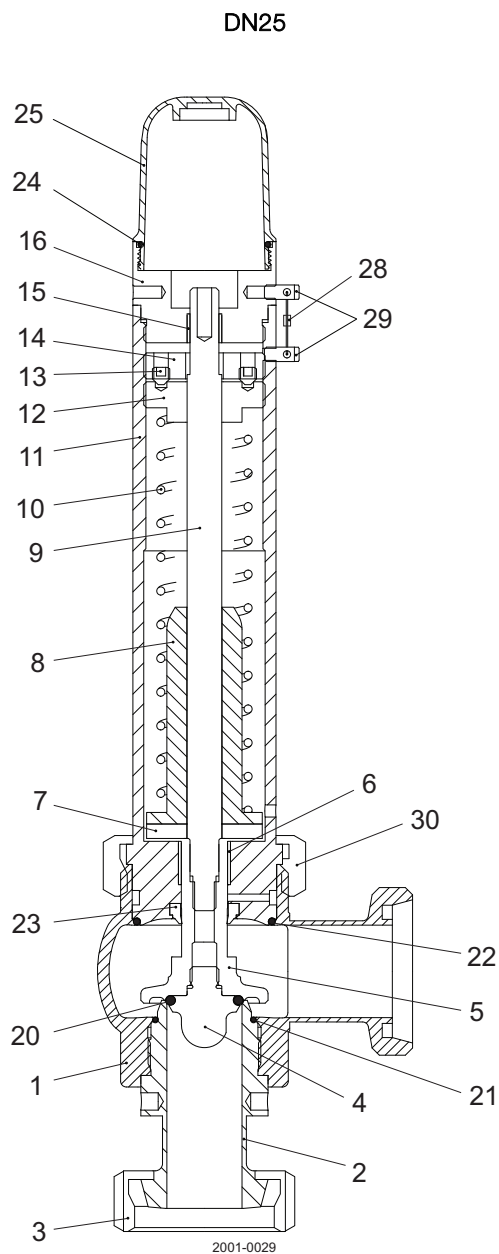


## 7 Parts list and service kits

Always use Alfa Laval genuine spare parts.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.1 Standard, sizes DN25-DN100



## 7 Parts list and service kits

*Always use Alfa Laval genuine spare parts.*

*The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.*

### Parts list

Pos.	Qty	Denomination
1	1	Body
2	1	Screw-in socket
3	1	Slotted nut
4	1	Piston plate
5	1	Piston
6	1	Plain bearing
7	1	Spring disc
7.1	1	Distance ring
8	1	Spring guide
9	1	Piston rod
10	1	Pressure spring
11	1	Spring housing
12	1	Setting disc
13	2	Headless pin
14	1	Locking disc
15	1	Plain bearing
16	1	Cover plate
20 ▲	1	O-ring
21 ▲	1	O-ring
22 ▲	1	O-ring
23 ▲	1	Shaft sealing
24	1	O-ring
25	1	Hood
25.1	1	Hood incl. o-ring (pos. 24)
27	1	Screw plug - deaeration
28	1	SealingSer
29	2	Screw
30	1	Slotted nut
31	1	Clamp coupling

### Service kits

	Denomination	DN25	DN40	DN50	DN65	DN80	DN100
▲	Service kit, EPDM .....	9614446901	9614446902	9614446903	9614446904	9614446905	9614446906

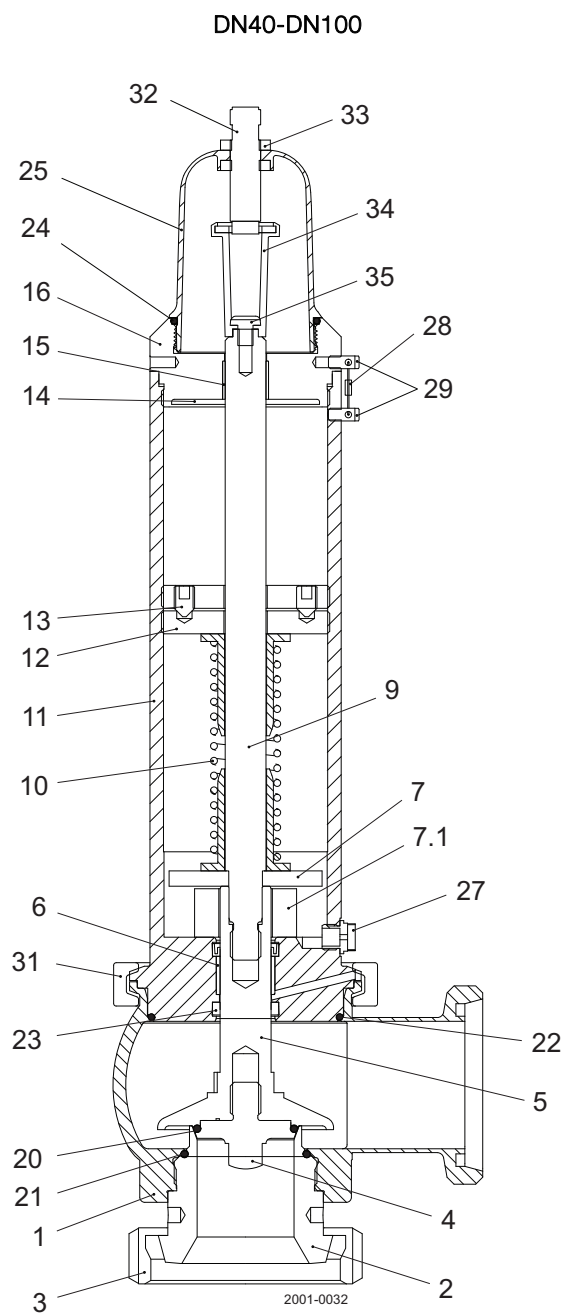
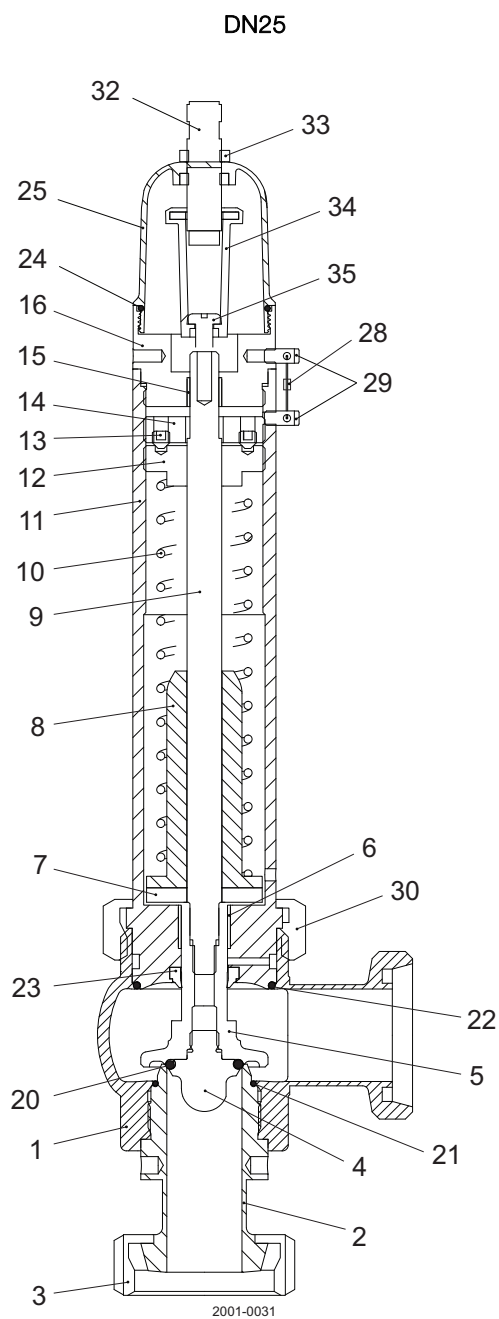
900-728

## 7 Parts list and service kits

Always use Alfa Laval genuine spare parts.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.2 Standard with inductive sensor, sizes DN25-DN100



## 7 Parts list and service kits

*Always use Alfa Laval genuine spare parts.*

*The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.*

### Parts list

Pos.	Qty	Denomination
1	1	Body
2	1	Screw-in socket
3	1	Slotted nut
4	1	Piston plate
5	1	Piston
6	1	Plain bearing
7	1	Spring disc
7.1	1	Distance ring
8	1	Spring guide
9	1	Piston rod
10	1	Pressure spring
11	1	Spring housing
12	1	Setting disc
13	2	Headless pin
14	1	Locking disc
15	1	Plain bearing
16	1	Cover plate
20 ▲	1	O-ring
21 ▲	1	O-ring
22 ▲	1	O-ring
23 ▲	1	Shaft sealing
24	1	O-ring
25	1	Hood
25.1	1	Hood incl. o-ring (pos. 24)
27	1	Screw plug - deaeration
28	1	Sealing
29	2	Screw
30	1	Slotted nut
31	1	Clamp coupling
32	1	Sensor
33	1	Nut
34	1	Bracket
35	1	Screw

### Service kits

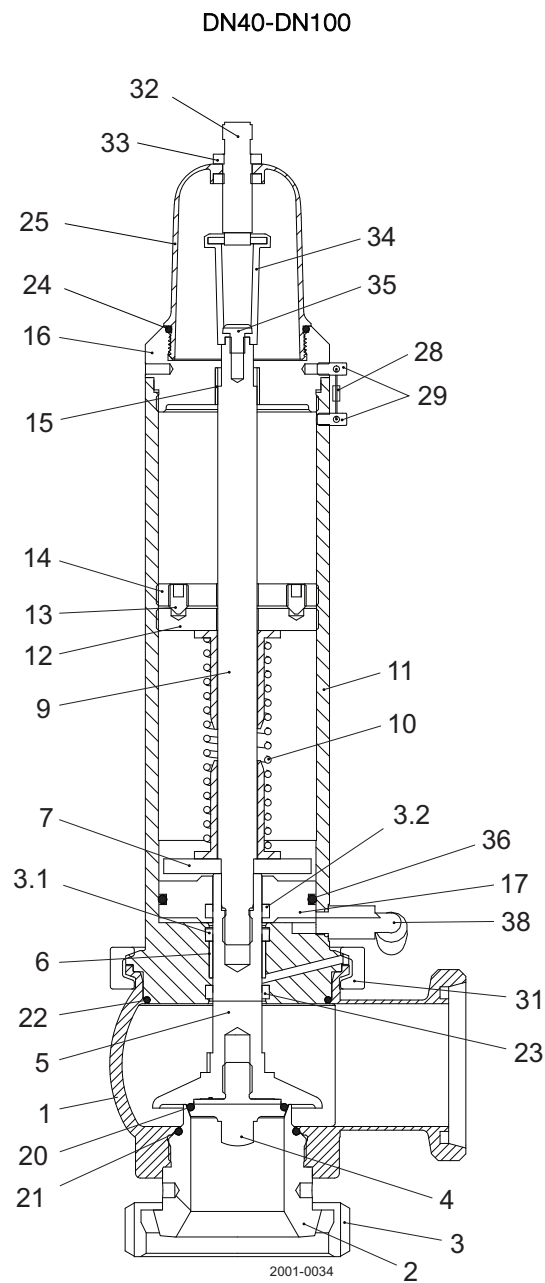
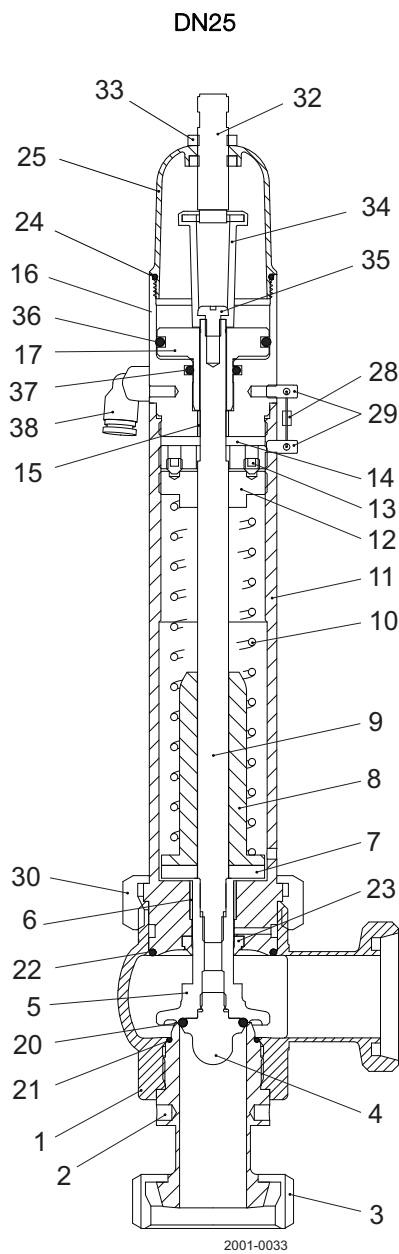
Denomination	DN25	DN40	DN50	DN65	DN80	DN100
▲ Service kit, EPDM .....	9614446901	9614446902	9614446903	9614446904	9614446905	9614446906

## 7 Parts list and service kits

Always use Alfa Laval genuine spare parts.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.3 Pneumatic lifting with inductive sensor, sizes DN25-DN100



## 7 Parts list and service kits

Always use Alfa Laval genuine spare parts.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### Parts list

Pos.	Qty	Denomination
1	1	Body
2	1	Screw-in socket
3	1	Slotted nut
3.1	1	Sealing
3.2	1	Sealing
4	1	Piston plate
5	1	Piston
6	1	Plain bearing
7	1	Spring disc
8	1	Spring guide
9	1	Piston rod
10	1	Pressure spring
11	1	Spring housing
12	1	Setting disc
13	2	Headless pin
14	1	Locking disc
15	1	Plain bearing
16	1	Cover plate
17	1	Piston
20 ▲	1	O-ring
21 ▲	1	O-ring
22 ▲	1	O-ring
23 ▲	1	Shaft sealing
24	1	O-ring
25	1	Hood
25.1	1	Hood incl. o-ring (pos. 24)
28	1	Sealing
29	2	Screw
30	1	Slotted nut
31	1	Clamp coupling
32	1	Sensor
33	1	Nut
34	1	Bracket
35	1	Screw
36	1	O-ring
37	1	O-ring
38	1	Air connection

### Service kits

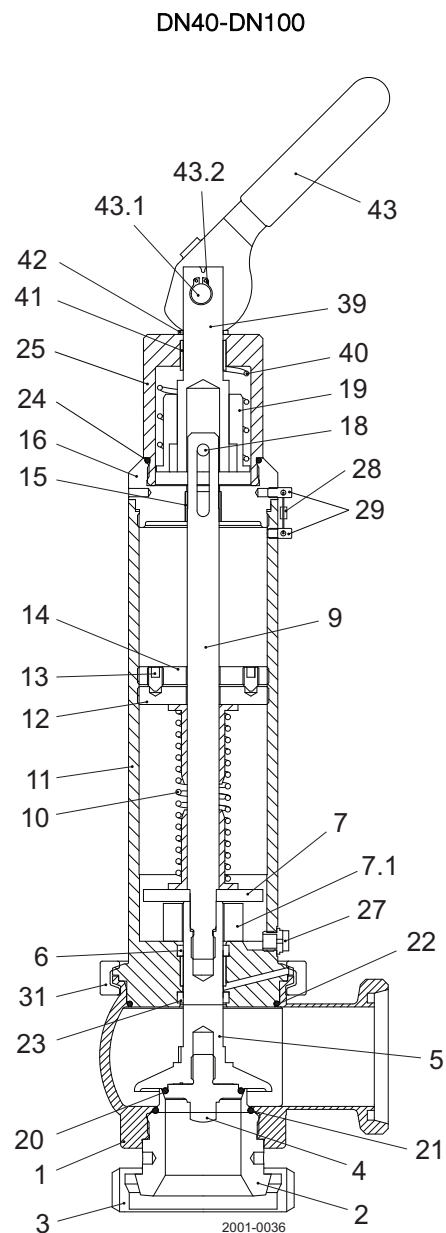
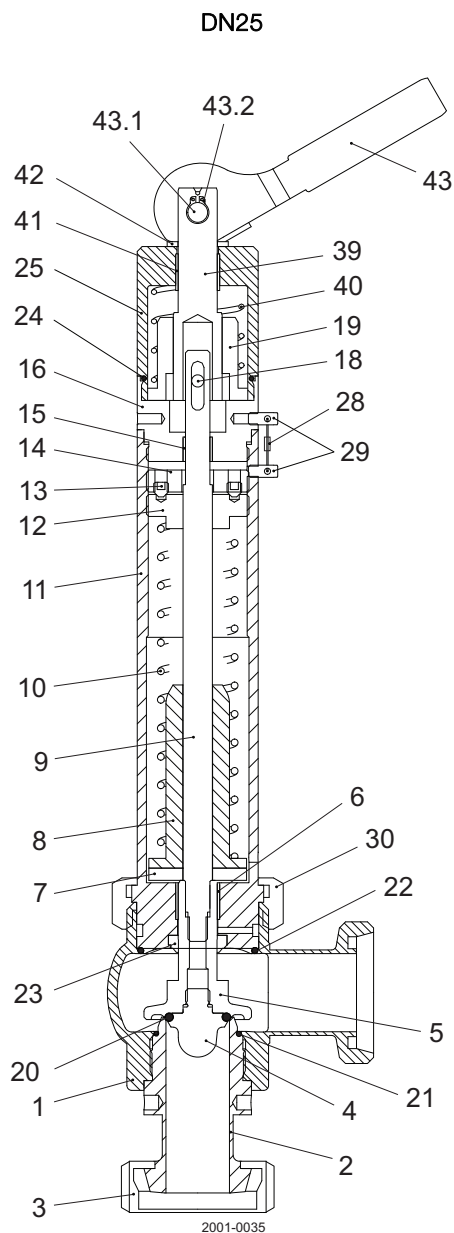
Denomination	DN25	DN40	DN50	DN65	DN80	DN100
▲ Service kit, EPDM .....	9614446901	9614446902	9614446903	9614446904	9614446905	9614446906

## 7 Parts list and service kits

Always use Alfa Laval genuine spare parts.

The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.

### 7.4 Manual lifting, sizes DN25-DN100



## 7 Parts list and service kits

*Always use Alfa Laval genuine spare parts.*

*The warranty of Alfa Laval products is dependent on the use of Alfa Laval genuine spare parts.*

### Parts list

Pos.	Qty	Denomination
1	1	Body
2	1	Screw-in socket
3	1	Slotted nut
4	1	Piston plate
5	1	Piston
6	1	Plain bearing
7	1	Spring disc
8	1	Spring guide
9	1	Piston rod
10	1	Pressure spring
11	1	Spring housing
12	1	Setting disc
13	2	Headless pin
14	1	Locking disc
15	1	Plain bearing
16	1	Cover plate
18	1	Pin
19	1	Spring guide
20 ▲	1	O-ring
21 ▲	1	O-ring
22 ▲	1	O-ring
23 ▲	1	Shaft sealing
24	1	O-ring
25	1	Hood
27	1	Screw plug - deaeration
28	1	Sealing
29	2	Screw
30	1	Slotted nut
31	1	Clamp coupling
39	1	Rod
40	1	Pressure spring
41	1	Bearing
42	1	Disc
43	1	Lever
43.1	1	Pin
43.2	1	Circlip

### Service kits

	Denomination	DN25	DN40	DN50	DN65	DN80	DN100
▲	Service kit, EPDM .....	9614446901	9614446902	9614446903	9614446904	9614446905	9614446906

**How to contact Alfa Laval**

Contact details for all countries are continually updated on our website.

Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information directly.

© Alfa Laval Corporate AB

This document and its contents is owned by Alfa Laval Corporate AB and protected by laws governing intellectual property and thereto related rights. It is the responsibility of the user of this document to comply with all applicable intellectual property laws. Without limiting any rights related to this document, no part of this document may be copied, reproduced or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the expressed permission of Alfa Laval Corporate AB. Alfa Laval Corporate AB will enforce its rights related to this document to the fullest extent of the law, including the seeking of criminal prosecution.