

Translation of the original

## Operating instruction

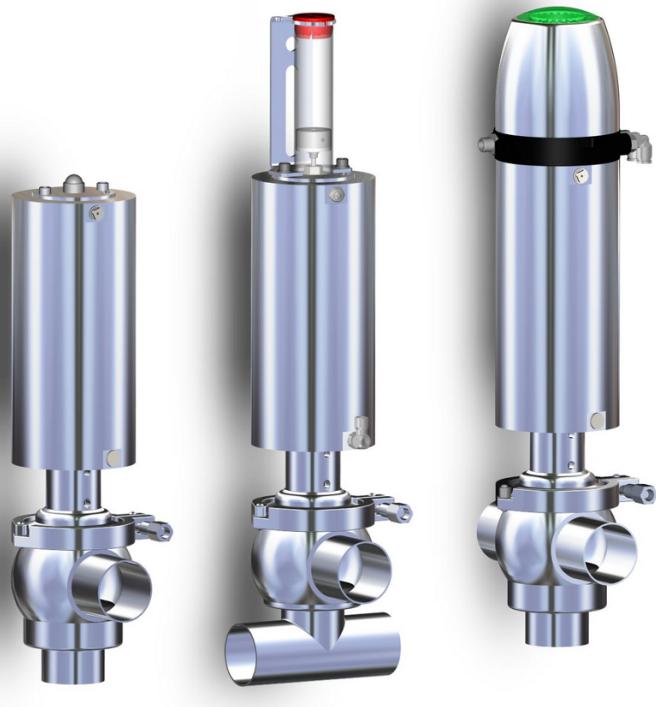
### KI-DS Overflow valve Type 557x

KI-DS Angle valve 5571

KI-DS T-valve 5572

KI-DS Cross valve 5573

KI-DS Loop valve 5575



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## 1 General informations

### 1.1 Informations for your safety

We are pleased that you have decided for a high-class KIESELMANN GmbH product. With correct application and adequate maintenance, our products provide long time and reliable operation.

Before installation and initiation, please carefully read this instruction manual and the security advices contained in it. This guarantees reliable and safe operation of this product and your plant respectively. Please note that an incorrect application of the process components may lead to great material damages and personal injury.

In case of damages caused by non observance of this instruction manual, incorrect initiation, handling or external interference, guarantee and warranty will lapse!

Our products are produced, mounted and tested with high diligence. However, if there is still a reason for complaint, we will naturally try to give you entire satisfaction within the scope of our warranty. We will be at your disposal also after expiration of the warranty. In addition, you will also find all necessary instructions and spare part data for maintenance in this instruction manual. If you don't want to carry out the maintenance by yourself, our KIESELMANN GmbH - service team will naturally be at your disposal.

### 1.2 Marking of security instructions

Hints are available in the chapter "safety instructions" or directly before the respective operation instruction. The hints are highlighted with a danger symbol and a signal word. Texts beside these symbols have to be read and adhered to by all means. Please continue with the text and with the handling at the valve only afterwards.

Symbol	Signal word	Meaning
	DANGER	Imminent danger which will result severe personal injury or death.
	WARNING	Imminent danger which may result severe personal injury or death.
	CAUTION	Dangerous situation which may cause slight personal injury or material damages.
	NOTICE	An harmful situation which may result in damages of the product itself or of adjacent vicinity.
	INFORMATION	Marks application hints and other information which is particularly useful.

### 1.3 General designated use

The fitting is designed exclusively for the purposes described below. Using the fitting for purposes other than those mentioned is considered contrary to its designated use. KIESELMANN GmbH cannot be held liable for any damage resulting from such use. The risk of such misuse lies entirely with the user. The prerequisite for the reliable and safe operation of the fitting is proper transportation and storage as well as competent installation and assembly. Operating the fitting within the limits of its designated use also involves observing the operating, inspection and maintenance instructions.

### 1.4 Personnel

Personnel entrusted with the operation and maintenance of the tank safety system must have the suitable qualification to carry out their tasks. They must be informed about possible dangers and must understand and observe the safety instructions given in the relevant manual. Only allow qualified personnel to make electrical connections.

## 1.5 Modifications, spare parts, accessories

Unauthorized modifications, additions or conversions which affect the safety of the fitting are not permitted. Safety devices must not be bypassed, removed or made inactive. Only use original spare parts and accessories recommended by the manufacturer.

## 1.6 General instructions

The user is obliged to operate the fitting only when it is in good working order. In addition to the instructions given in the operating manual, please observe the relevant accident prevention regulations, generally accepted safety regulations, regulations effective in the country of installation, working and safety instructions effective in the user's plant.

## 2 Safety instructions

### 2.1 Intended use

The overflow valve is used to set the liquid pressure in a section of a closed circular pipeline, in tanks and vessels in plants of the food and drink industry, pharmaceutical and chemical industries as well as in biotechnology.

### 2.2 General notes



#### NOTICE - observe the operating instructions

To avoid danger and damage, the fitting must be used in accordance with the safety instructions and technical data contained in the operating instructions.



#### NOTICE

All data are in line with the current state of development. Subject to change as a result of technical progress.

### 2.3 General safety instructions



#### ⚠ WARNING

##### Risk of injury by moving parts

Do not grab into the valve when the actuator is pressurized. Limbs can be crushing or amputating.

- Remove the control air line before dismantling.
- Ensure that the actuator is unpressurized.



#### ⚠ WARNING

##### Risk of injury by outflowing medium

Dismantling the valve or valve assemblies from the plant can cause injuries.

- Medias flowing through the leakage drain outlet are to be drained off without splashing into a discharge arrangement.
- Carry the disassembling only if when the plant has been rendered pressure-less and free of liquid and gas.



#### ⚠ WARNING

##### ATEX - Guidelines

If the valve or the plant is operated in a potentially explosive atmosphere, the valid ATEX directive of the EC and the installation instructions in this operating manual must be observed.



#### ⚠ CAUTION

##### When mounting the clamps, the max. torque must not be exceeded.

(see technical data)



#### ⚠ CAUTION

To avoid air leaking, only use pneumatic connection parts that have an O-ring seal facing the even surface.



#### ⚠ CAUTION

Before starting the system, the entire pipeline system must be thoroughly cleaned.

**⚠ CAUTION**

Steps should be taken to ensure that no external forces are exerted on the fitting.

## 3 Delivery, transport and storage

### 3.1 Delivery

- Immediately after receipt check the delivery for completeness and transport damages.
- Remove the packaging from the product.
- Retain packaging material, or expose of according to local regulations.

### 3.2 Transport



#### ⚠ CAUTION

##### Risk of injury and damage to the product

During the transport the generally acknowledged rules of technology, the national accident prevention regulations and company internal work and safety regulations must be observed.

### 3.3 Storage



#### NOTICE

##### Damage to the product due to improper storage!

Observe storage instructions

avoid a prolonged storage



#### INFORMATION

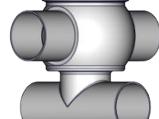
##### Recommendation for longer storage

We recommend regularly checking the product and the prevailing storage conditions during long storage times.

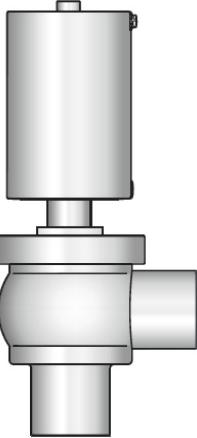
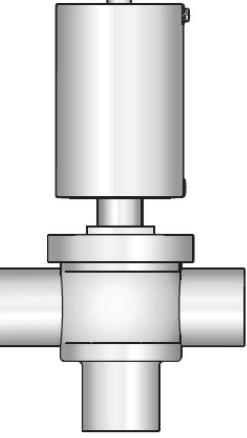
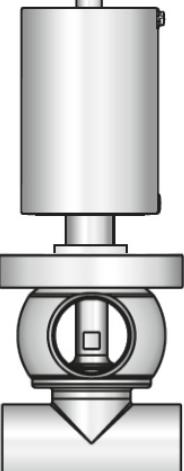
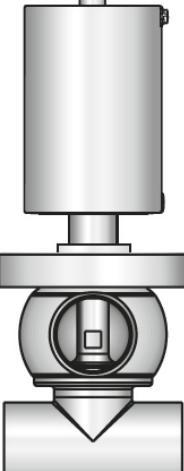
- To avoid damage to seals and bearings,
  - products up to DN 125 / OD 5 inch should be stored horizontally for maximum 6 months.
  - products larger than DN 125 / 5 inch, should be stored in the upright position with the actuator on top.
- Don't store any objects on the products.
- Protect the products for wetness, dust and dirt.
- The product should be stored in a dry and well ventilated room at a constant temperature (optimal indoor temperature: 25 °C ±5 ; indoor humidity data 70% ±5%).
- Protect seals, bearings and plastic parts for UV light and ozone.

## 4 Specification

### 4.1 Modular system

KI-Top control head	feedback unit		
			
Stainless steel hood	Transparent hood		
Actuator pneumatical			
			
Ø129	Ø167		
Valve inserts			
			
EPDM, HNBR			
Valve housing			
			
S - S Angle valve Type 5571	SS - S t-valve Type 5572	SS - SS cross valve Type 5573	S - SS Loop valve Type 5575

## 4.2 Valve types

Standard valve with welding connections			
Angle valve S - S Type 5571	t-valve SS - S Type 5572	cross valve SS - SS Type 5573	Loop valve S - SS Type 5575
			

## 5 Function and operation

### 5.1 Description of function

The overflow valve is used to relieve pressure in plants or vessels even of impermissible pressures of liquid media. The leaking medium can be discharged controlled to the atmosphere or can be fed back into a closed system or forwarded.

#### 5.1.1 Adjusting range / Actuator type

There are two types of actuator ( $\varnothing 104$  mm and  $\varnothing 167$  mm) available for overflow valves type 557x. Both drive types are equipped with different pressure springs. A total of 6 different drive variables are obtained which are used depending on the nominal width for the appropriate setting ranges.

Nominal dia- meter	Adjusting range	Pneum. actuator Type Ø104				Pneum. actuator Type Ø167	
		No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
DN 25 1"	0,5 bar - 4,0 bar	X					
	3,0 bar - 12,0 bar		X				
DN 40 1½"	0,5 bar - 4,0 bar	X					
	3,0 bar - 12,0 bar		X				
DN 50 2"	0,5 bar - 3,0 bar	X					
	2,0 bar - 7,5 bar		X				
	3,0 bar - 12,0 bar				X		
DN 65 2½"	0,5 bar - 6,0 bar			X			
	2,0 bar - 7,0 bar				X		
	2,0 bar - 10,0 bar					X	
	7,0 bar - 12,0 bar						X
DN 80 3"	0,5 bar - 4,0 bar			X			
	1,0 bar - 7,0 bar					X	
	5,0 bar - 12,0 bar						X
DN 100 4"	0,5 bar - 3,0 bar			X			
	2,0 bar - 5,0 bar					X	
	3,0 bar - 10,0 bar						X

### 5.2 Control system and position indicator



#### Feedback unit -optional-

Optionally, modular valve control head systems can be installed to the actuator for reading and actuating valve positions. The standard version is a closed system with SPS or ASI-bus switch-on electronics, and integrated 3/2-way solenoid valves. For tough operating conditions we recommend employing a high-grade steel cover.

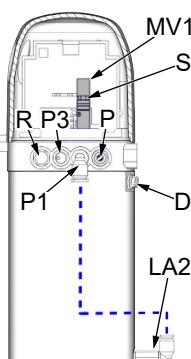
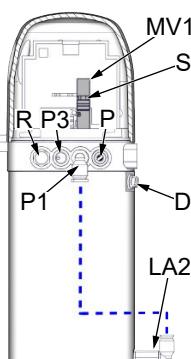
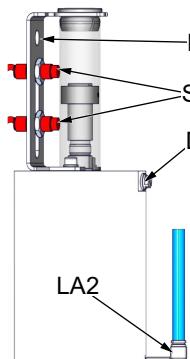


#### Feedback unit with finger guard -optional-

For the acquisition of the valve positions over inductive initiators (Sensors), a feedback unit is mounted on the actuation. The enquiry takes place over the position of the piston rod.

### 5.3 Pneumatic valve activation

Valve function	Pneum. activation via control head with solenoid valves (MV)	Pneum. activation via external solenoid valves (MV external)
<b>Valve OPEN</b> by pressurised air	control air feed P $\Rightarrow$ MV1 $\Rightarrow$ P1/LA2	control air feed ext. MV $\Rightarrow$ LA2
<b>Valve CLOSED</b> by spring tension	de-aeration LA2/P1 $\Rightarrow$ MV1 $\Rightarrow$ R	de-aeration LA2 $\Rightarrow$ ext. MV

	Control head with solenoid valve	external pneum. activation
<p>MV = solenoid valve R = de-aeration, sound absorber P = compressed-air inlet (control unit) LA = air supply S = Slide switch, manual operation of solenoid valve Si = Sensors M12x1 E = mounting kit for feedback unit</p> 		

## 5.4 Pressure setting

### Adjustment of the set pressure

The adjustment of the set pressure, respectively the opening pressure difference is done by turning the hexagon head (SW14) of the adjusting rod (13). Since the adjusting rod (13) is not directly connected to obturator the adjustment can be done very easily during regular operation.

The setting will be locked by assembling the locking disc (10).

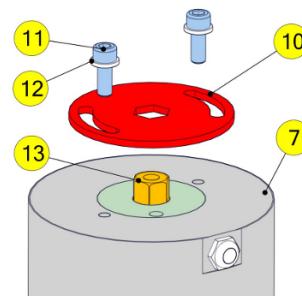


#### NOTICE

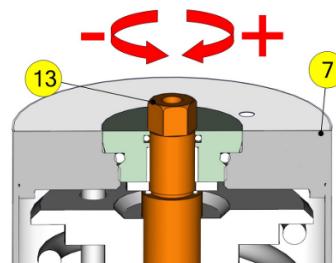
All threaded joint have right-hand thread.

Unscrew and remove control air, steam resp. cleaning lines and electrical lines, complete feedback unit or control head.

- Unscrew the screws (11) and remove the locking disc (10).
- Adjust the set pressure using the hexagon head (SW14) of the adjusting rod (13).



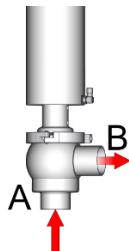
- Increase spring tension**
  - turn the hexagon head (13) clockwise (+)
- Reduce spring tension**
  - turn the hexagon head (13) counterclockwise (-)
- Assemble the locking disc (10) to lock the setting.



## 6 Commissioning, service and maintenance

### 6.1 Commissioning

#### 6.1.1 Installation instructions



##### Fitting position

The valve must be installed vertically with the actuator at the upwards. Liquid must be able to flow freely from the valve housing.

Valves with a set pressure  $\Delta$  of 0.5 bar are generally installed vertically.

#### 6.1.2 General welding guidelines

Sealing elements integrated in weld components must generally be removed prior to welding. To prevent damage, welding should be undertaken by certified personnel (EN ISO 9606-1). Use the TIG (Tungsten Inert Gas) welding process.



##### CAUTION

###### Damage and injuries due to high temperature supply

To avoid a distortion of the components, all welding parts must be welded to stress-relieved.

Allow all components to cool before assembling.



##### NOTICE

###### Damage due to impurities

Impurities can cause damage to the seals and seals area.

Clean inside areas prior to assembly.

#### 6.1.3 ATEX - Guidelines

For valves or plants/installations that are operated in the ATEX area, sufficient bonding (grounding) must be ensured (see valid ATEX Guidelines EG).

### 6.2 Service



##### RECOMMENDATION

###### Replacement of seals

To achieve optimal maintenance cycles, the following points must be observed!

- When replacement of seals, all product-contacting seals should be replaced.
- Only original spare parts may be installed.

###### Maintenance interval

The maintenance intervals depend on the operating conditions "temperature, temperature-intervals, medium, cleaning medium, pressure and opening frequency". We recommend replacing the seals 1-year cycle. The user, however should establish appropriate maintenance intervals according to the condition of the seals.

**Lubricant recommendation**

	EPDM; HNBR; NBR; FKM; k-flex	- 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.		

**Maintenance - Lift actuator**

The actuator is maintenance-free and non-removable.

## 6.3 Cleaning

**Cleaning**

Ideally, cleaning is carried out with pipe system cleaning when the valve is open.

## 7 Technical data

Model	overflow valve spring resetting <ul style="list-style-type: none"> <li>• pneumatic lifting</li> <li>• optional with feedback unit</li> </ul>	
Valve type	Type 5571 Angle valve Type 5572 T-valve Type 5573 Cross valve Type 5575 Loop valve	
Valve size	DN25 - DN100 OD 1 Inch - OD 4 Inch	
Connection	weld-on end Liner connection Threaded connection	DIN EN 10357 Serie B DIN 11866, serie C DIN 11851 DIN 11851
Temperature range	Ambient (air) Operating (medium depend-ent) Sterilization (SIP 30 min)	+4° to +45°C +0° to +95°C EPDM +140°C HNBR +120°C FKM +140°C
Pressure nominal	PN 16	
Set pressure	DN25 - DN80 DN 100 1 Inch - 3 Inch 4 Inch	0,5 - 12,0 bar 0,5 - 10,0 bar 0,5 - 12,0 bar 0,5 - 10,0 bar
Leak rate	A (DIN EN 12266-1)	
Control air pressure	5,5 - 8,0 bar	
Quality of control air:	ISO 8573-1 : 2001 quality class 3	
Material: (in product contact)	stainless steel: Surface: Sealing material:	AISI 304 AISI 316L Ra ≤ 0,8µm, e-polished EPDM (FDA) HNBR (FDA) FKM (FDA)

## 7.1 Torques

<b>Tightening moment: (in Nm)</b>	<b>25</b>	<b>40</b>	<b>50</b>	<b>65</b>	<b>80</b>	<b>100</b>
<b>Clamp coupling (Nm):</b>	15	15	15	25	25	55

## 8 Disassembly and assembly

### 8.1 Disassembly

#### Mounting tools

T1		Combination wrench-Set	SW 8 - SW 24	-
T2		Allen key - Set	1.5 - 10	-
T10		Joint -pin wrench	Pin Ø6	8027000065-000
T11		Hinged hook wrench	-	8027000065-000
T12		Joint face wrench	Pin Ø6 40-80 MM	8028340080-000



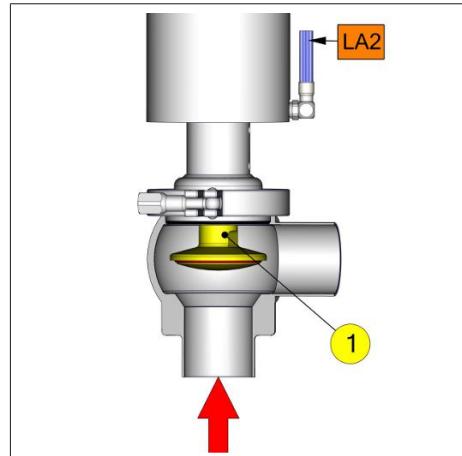
#### NOTICE

All threaded joint have right-hand thread.

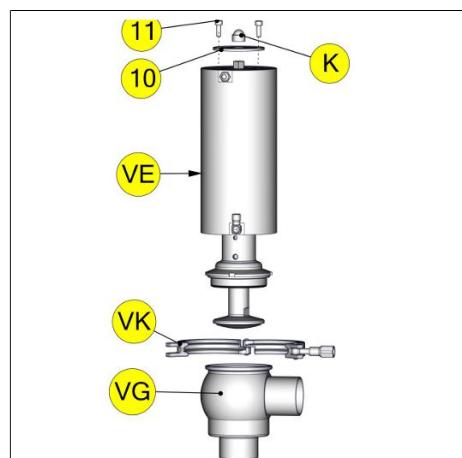
Unscrew and remove control air, steam resp. cleaning lines and electrical lines, complete feedback unit or control head.

#### Assembly valve insert

- Connect compressed air to LA2 and pressurize the actuator with air.
  - The piston (1) retracts.

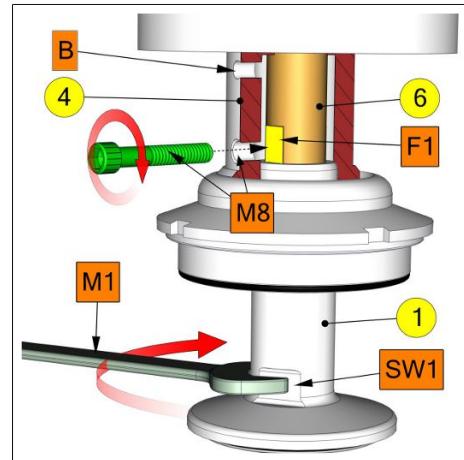


- Unscrew the clamp coupling (VK).
- Dismount the valve insert (VE) out of the housing (VG).
- Disconnect compressed air at air supply LA2.
  - The piston (1) returns to the basic position.
- Remove cap (K).
- Unscrew the screw (11) and remove the locking disc (10).

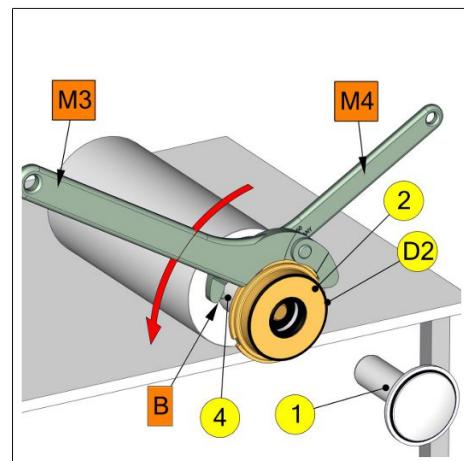


### Replacement of seals - in product contact

- Fix the piston rod (6). For this, screw a screw M8 into the lantern (4) as far as the surface (F1).
  - Unscrew the piston (1) with a wrench via spanner flat (SW1).



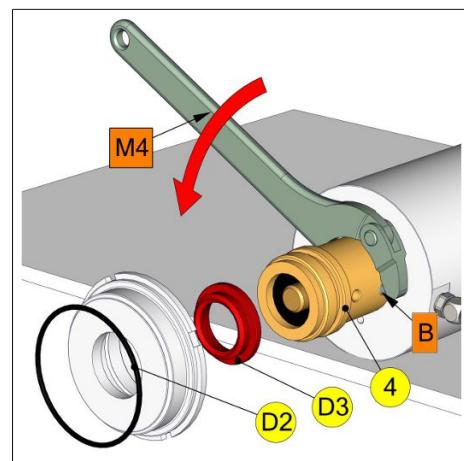
- Unscrew the insert (2) from the lantern (4) with a hook wrench M3. For this, holding on the lantern with a pin wrench M4 at bore (B).



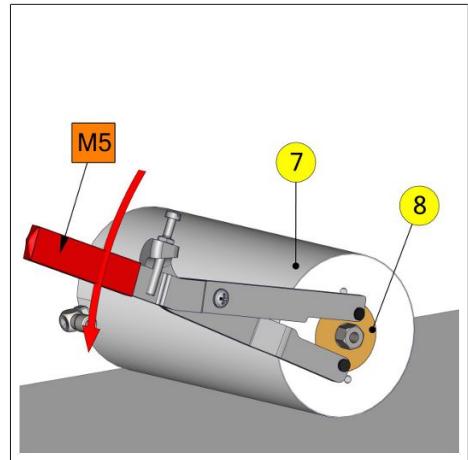
- Remove O-ring (2) and seal (D3).
- Unscrew the lantern (4) from the actuator (7) with a pin wrench M4 at bore (B) and remove it from piston rod (6).
- Remove the O-rings (D4) and (D5).

#### NOTICE!

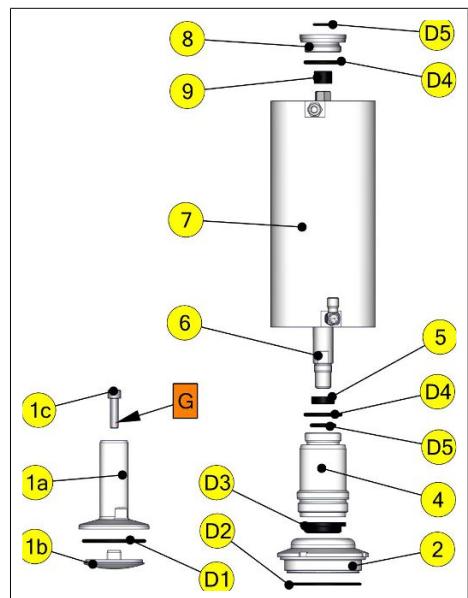
The bearing bushes (3) and (5) and the O-rings (D4) and (D5) do not need to be removed for a product-contacted seal change. The positions are not included in the seal set. If they are worn, please order them (see wearing parts set).



- Unscrew the insert (8) from the actuator (7) with a pin type face spanner M5.
- Remove the O-rings (D4) and (D5).



- Unscrew the screw (1c) from actuator (1a). Remove the plate (1b) and O-ring (D1) from piston (1a).



## 8.2 Assembly

- Before installation, thoroughly clean and slightly lubricate mounting areas and running surfaces.



### NOTICE

Mount the threaded connection (G) with Screw retention detachable (e.g. Loctite 243).

- Assemble in reverse order.
- Check the function according to the specified performance data in the operating state.



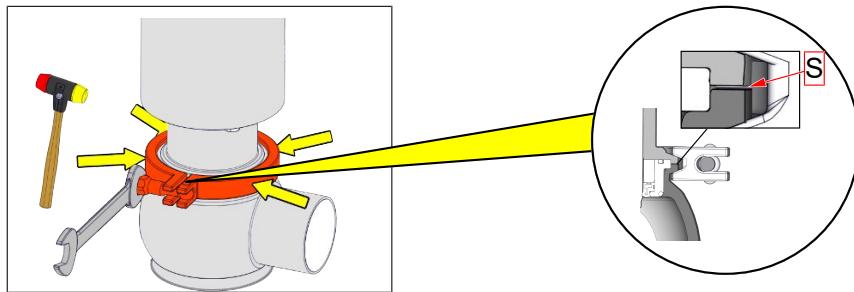
### NOTICE

**During assembly, the following points must be observed!**

Carefully fit in the complete valve insert into the casing. When fitting the valve insert and running surfaces onto the piston, do not damage.

➤ **Mounting clamp coupling**

- For mounting the clamp coupling, please note that it continuously fits form locking to the inclinations of the casing and the lantern/casing bottom.
- The centring of the retaining clamp during tightening can be accomplished with a slight beat (please use a soft-head hammer) on the extent of the retaining clamp.
- When tightening the clamp coupling, please pay attention to the turning moment and the gap size 'S' ( $\leq 0,4\text{mm}$ ) between the components.
- Check valve functions by manually activating the 3/2-way solenoid valves after assembly!

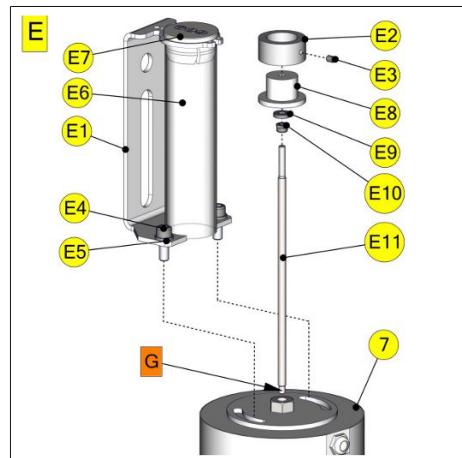


#### Torques

	DN	25	40	50	65	80	100
	Inch	1	1½	2	2½	3	4
<b>Clamp coupling (Nm):</b>		15	15	15	25	25	55

### Assembly - Feedback unit (E)

- Unscrew the screws (E4).
- Remove the bracket (E1) complete with cover (E7) and sleeve (E6).
- Unscrew switch shaft (E11) complete with (E2), (E3), (E8), (E9) and (E10) from actuator (7).
- Loosen the set screw (E3) from switch cam (E2).
- Remove switch cam (E2) from adapter (E8).

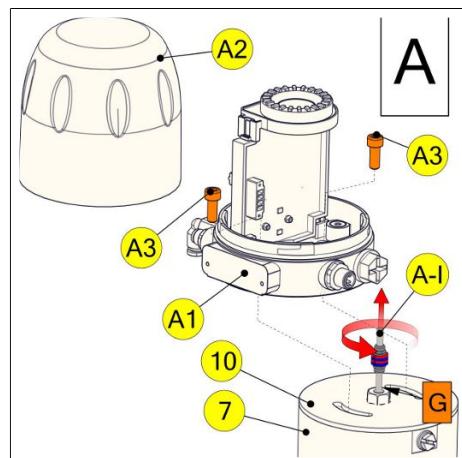


#### NOTICE

Mount the threaded connection (G) with Screw retention detachable (e.g. Loctite 243) .

### Assemble - Control head (A)

- Remove the cover (A2) (bayonet lock).
- Unscrew screws (A3).
- Remove the control head housing (A1) complete with attachments.
- Remove locking disc (10).
- Unscrew the pulse generator (A-I) complete from actuator (7).



#### NOTICE

Mount the threaded connection (G) with Screw retention detachable (e.g. Loctite 243) .

## 9 Drawings and dimensions

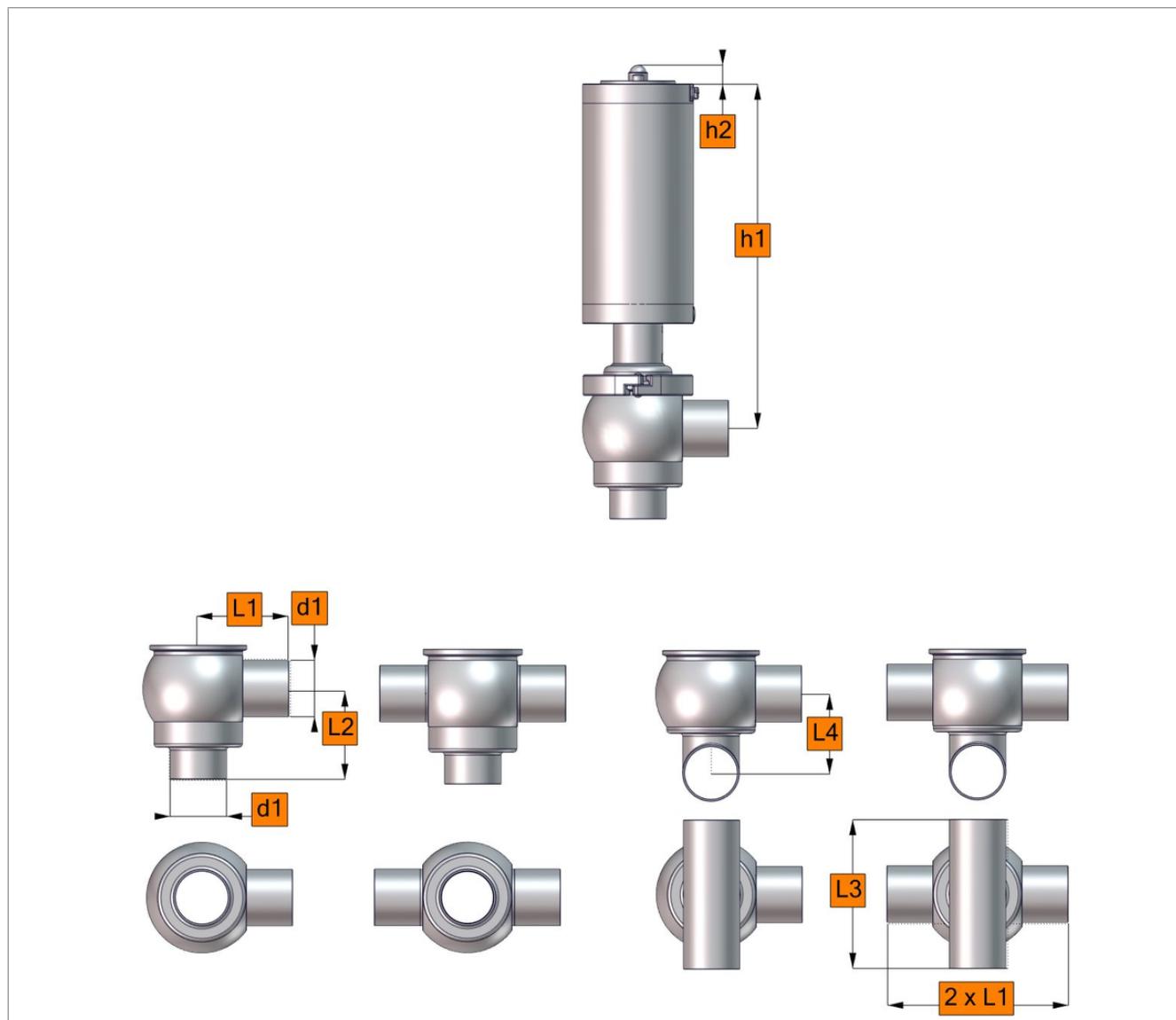
### 9.1 Drawings

#### Standard valve - Angle version

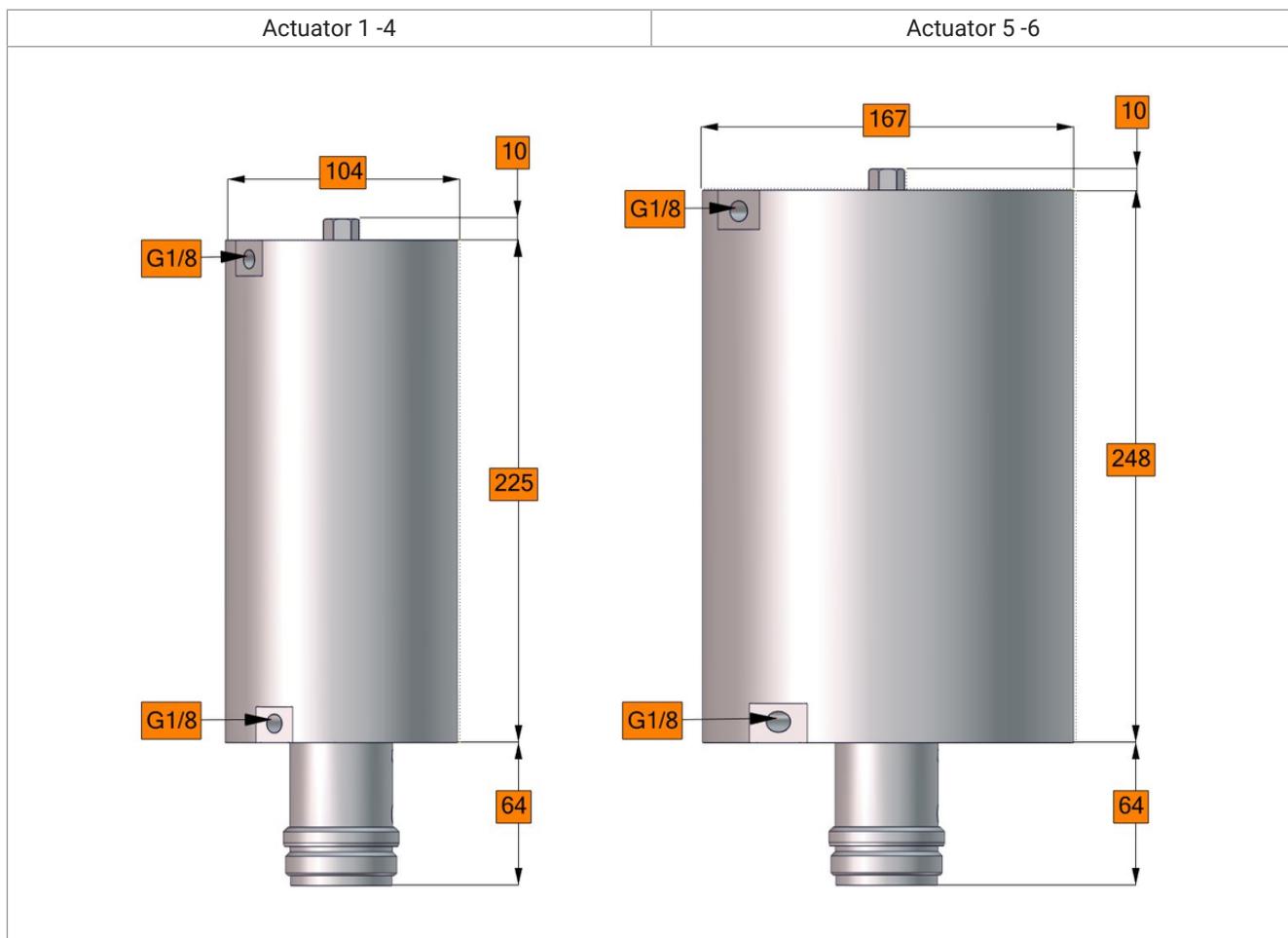
<ul style="list-style-type: none"> <li>• 1a = Piston</li> <li>• 1b = Piston plate</li> <li>• 1c = Screw</li> <li>• 2 = Insert</li> <li>• 3 = Bearing bush</li> <li>• 4 = Lantern</li> <li>• 5 = Bearing bush</li> <li>• 6 = Piston rod</li> <li>• 7 = Actuator</li> <li>• 8 = Insert lantern</li> <li>• 9 = Bearing bush</li> <li>• 10 = Locking disc</li> <li>• 11 = Screws</li> </ul> <p>seals</p> <ul style="list-style-type: none"> <li>• D1 = O-ring</li> <li>• D2 = O-ring</li> <li>• D3 = Shaft seal</li> <li>• D4 = O-ring</li> <li>• D5 = O-ring</li> </ul> <ul style="list-style-type: none"> <li>• B = Hole</li> <li>• K = Cap</li> <li>• F1 = Flat</li> <li>• G = Thread connection secure</li> <li>• with threaded connection "removable"</li> <li>• (e.g. Loctite 243)</li> <li>• LA1 = Air supply (stroke)</li> <li>• M8 = Thread M8</li> <li>• SW = Wrench size</li> <li>• VG = Angle - Valve housing</li> <li>• VK = Clamp coupling</li> </ul>	
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## 9.2 Dimensions

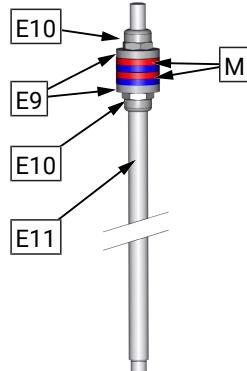
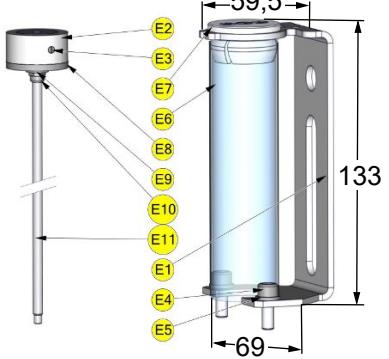
### Angle valve, T-valve, Loop valve, Cross valve



	DN 25	1"	DN 40	1½"	DN 50	2"	DN 65	2½"	DN 80	3"	DN100	4"
	mm		mm		mm		mm		mm		mm	
Ø d <sub>1</sub>	29x1.5	25,4x1,65	41x1.5	38,1x1,65	53x1.5	50,8x1,65	70x2.0	63,5x1,65	85x2.0	76,1x2,0	104x2.0	101,6x2,0
h1	229	227	225	223	232	231	221	218	242	238	237	236
h2	18		18		18		18		18		18	
L1	75		85		85		105		115		130	
L2												
L3	100		120		140		160		180		200	
L4	57		66		74.5		96		122		144	

**Actuator**

### 9.3 Control units

Control head KI-TOP	
with plastic hood - transparent	with stainless steel hood
 129 Ø 105	 129 Ø 105
<u>Pulse generator</u> <ul style="list-style-type: none"> <li>• E9 = Discs</li> <li>• E10 = Nuts</li> <li>• E11 = Pin</li> <li>• M = Magnets</li> </ul>	 E10 E9 E10 E11 M
Feedback unit with finger guard (E)	
<ul style="list-style-type: none"> <li>• E1 = sensor mounting</li> <li>• E2 = Switch cam</li> <li>• E3 = Bolt</li> <li>• E4 = Cap screws</li> <li>• E5 = Discs</li> <li>• E6 = Shell (finger guard)</li> <li>• E7 = Cap</li> <li>• E8 = Adapter</li> <li>• E9 = Disc</li> <li>• E10 = Nut</li> <li>• E11 = Pin</li> </ul>	 59,5 133 69 E2 E3 E7 E6 E8 E9 E10 E11 E1 E4 E5

## 10 Wearing parts

### 10.1 Wearing parts

Pos.	Material	pce.	DN 25 1 Inch	DN 40 1½ Inch	DN 50 2 Inch	DN 65 2½ Inch	DN 80 3 Inch	DN 100 4 Inch
3	XSM	1x			Bearing bush 8050 028 020-156			
5	XSM	1x			Bearing bush 8050 020 007-156			
9	GSM	1x			Bearing bush 8050 016 012-060			
D1	EPDM	1x	O-ring	O-ring	O-ring	O-ring	O-ring	O-ring
			2304 044 035-159	2304 044 035-159	2304 054 035-170	2304 072 035-170	2304 085 035-159	2304 105 045-170
			2304 044 035-171	2304 044 035-171	2304 054 035-050	2304 072 035-171	2304 085 035-050	2304 105 045-171
	HNBR	1x	2304 044 035-051	2304 044 035-051	2304 054 035-051	2304 072 035-251	2304 085 035-051	2304 105 045-251
D2	EPDM	1x	O-ring	O-ring	O-ring	O-ring	O-ring	O-ring
			2304 069 026-159	2304 069 026-159	2304 069 026-159	2304 082 026-159	2304 098 035-159	2304 117 035-159
			2304 069 026-171	2304 069 026-171	2304 069 026-171	2304 082 026-050	2304 098 035-050	2304 117 035-171
	HNBR	1x	2304 069 026-251	2304 069 026-251	2304 069 026-251	2304 082 026-051	2304 098 035-051	2304 117 035-051
D3	EPDM	1x	Shaft seal					
							5506 050 009-054	
							5506 050 009-050	
D4	HNBR	1x					5506 050 009-251	
							O-ring	
							2304 030 035-055	
D5	HNBR	2x					O-ring	
							2304 019 035-171	
							O-ring	
D6	HNBR	2x					2304 016 020-055	

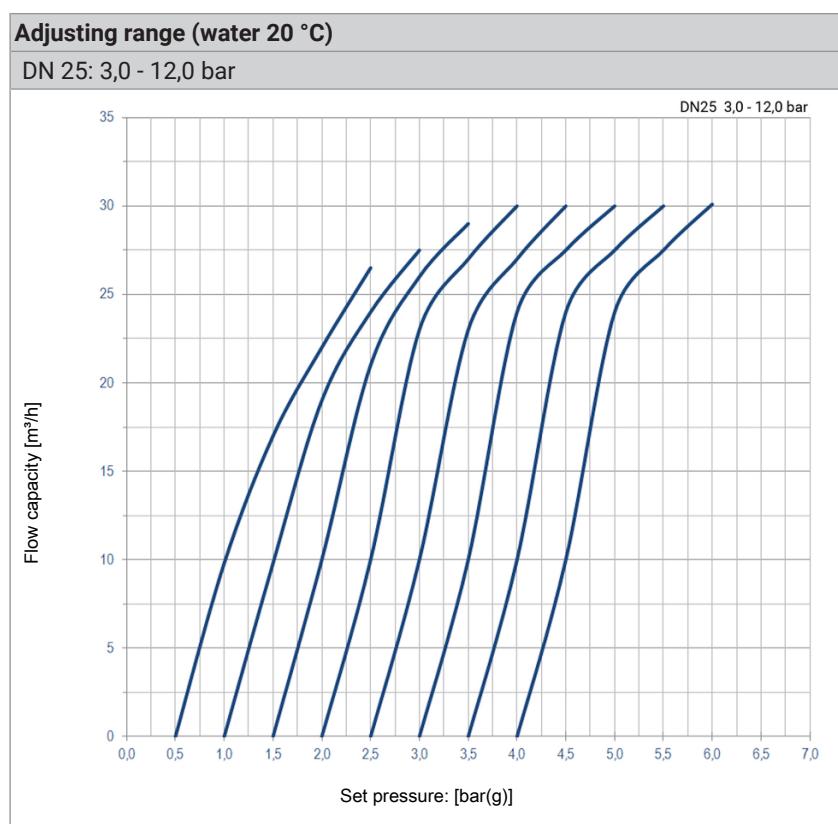
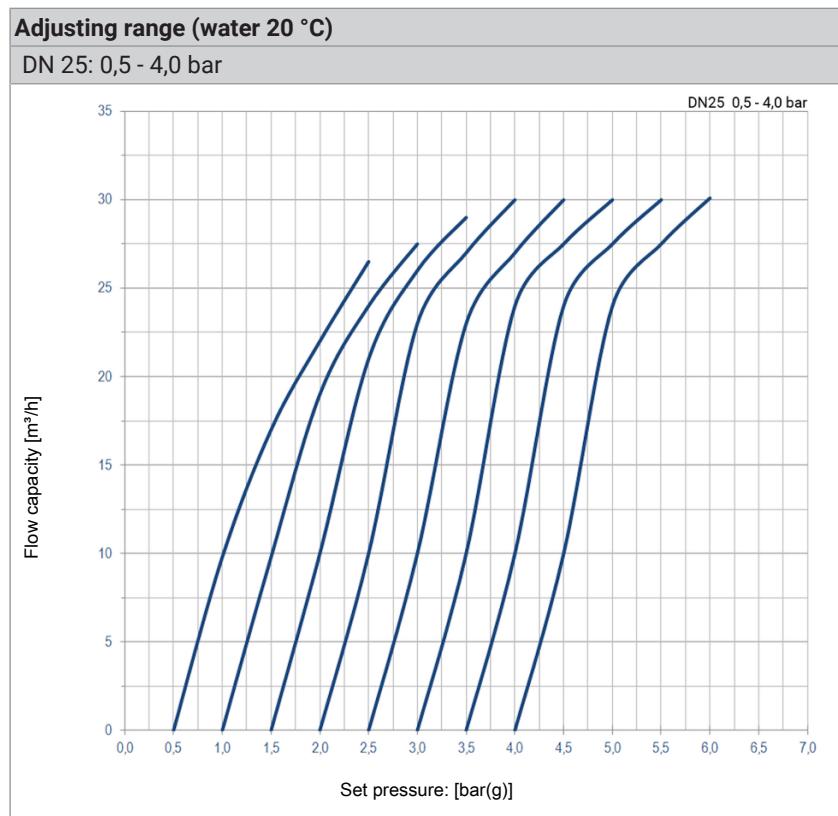
**Wear part sets**

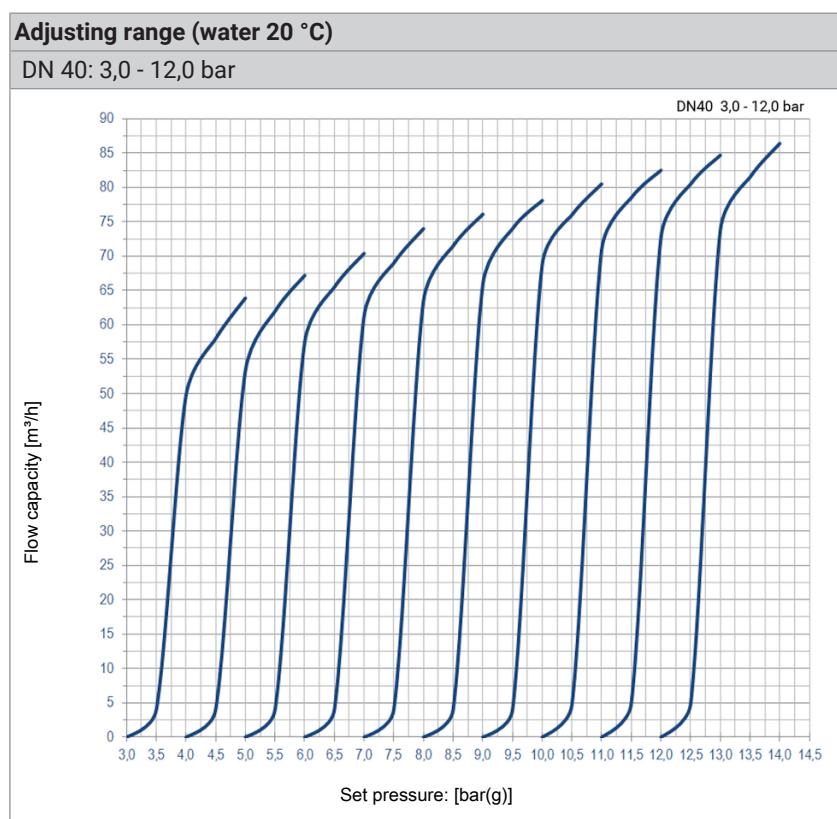
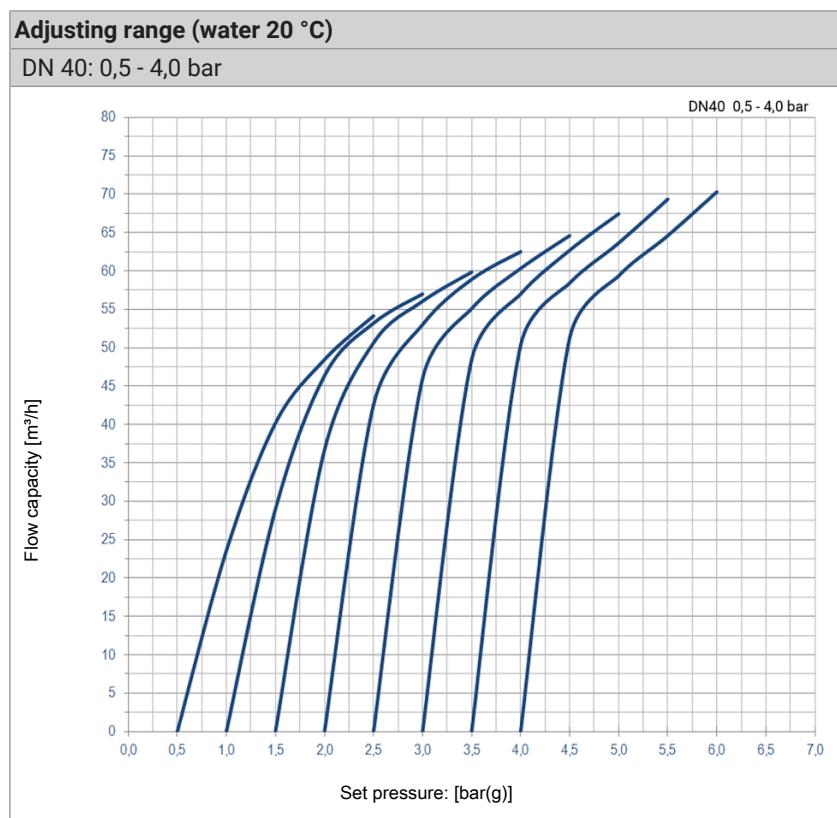
- Seals (D1), (D2), (D3)

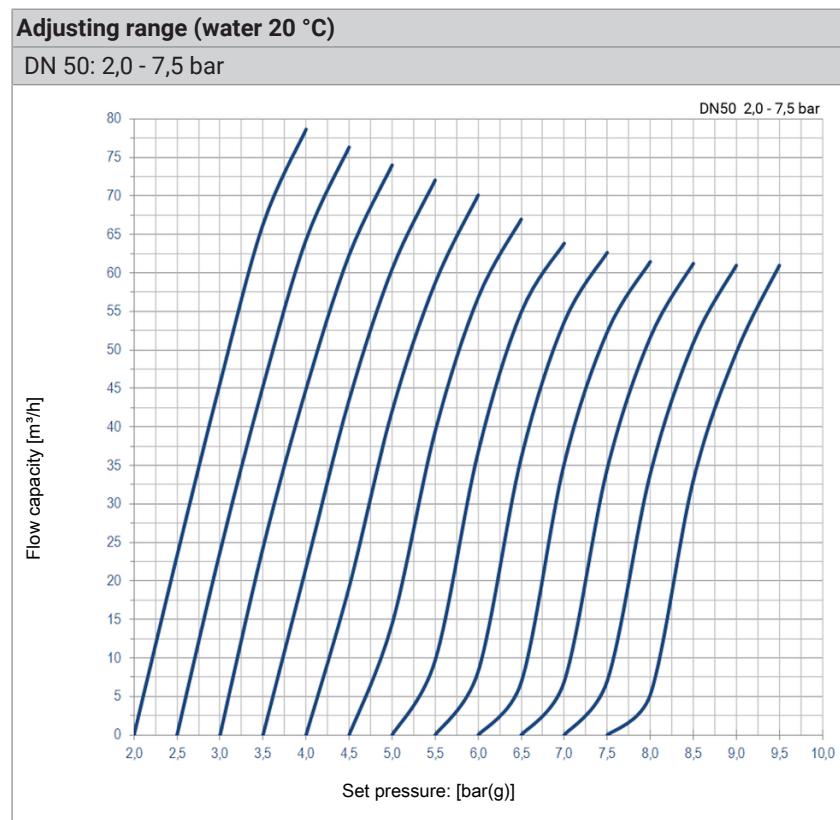
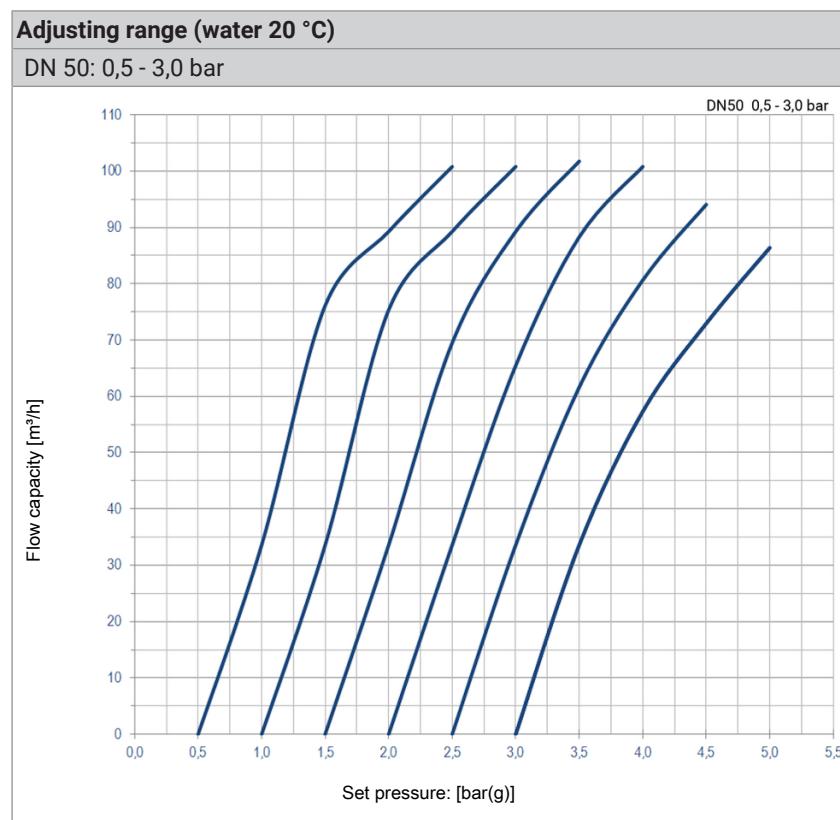
Material	DN 25 1 Inch	DN 40 1½ Inch	DN 50 2 Inch	DN 65 2½ Inch	DN 80 3 Inch	DN 100 4 Inch
EPDM	5571 025 990-054	5571 040 990-054	5571 050 990-054	5571 065 990-054	5571 080 990-054	5571 100 990-054
HNBR	5571 025 990-050	5571 040 990-050	5571 050 990-050	5571 065 990-050	5571 080 990-050	5571 100 990-050
FKM	5571 025 990-251	5571 040 990-251	5571 050 990-251	5571 065 990-251	5571 080 990-251	5571 100 990-251

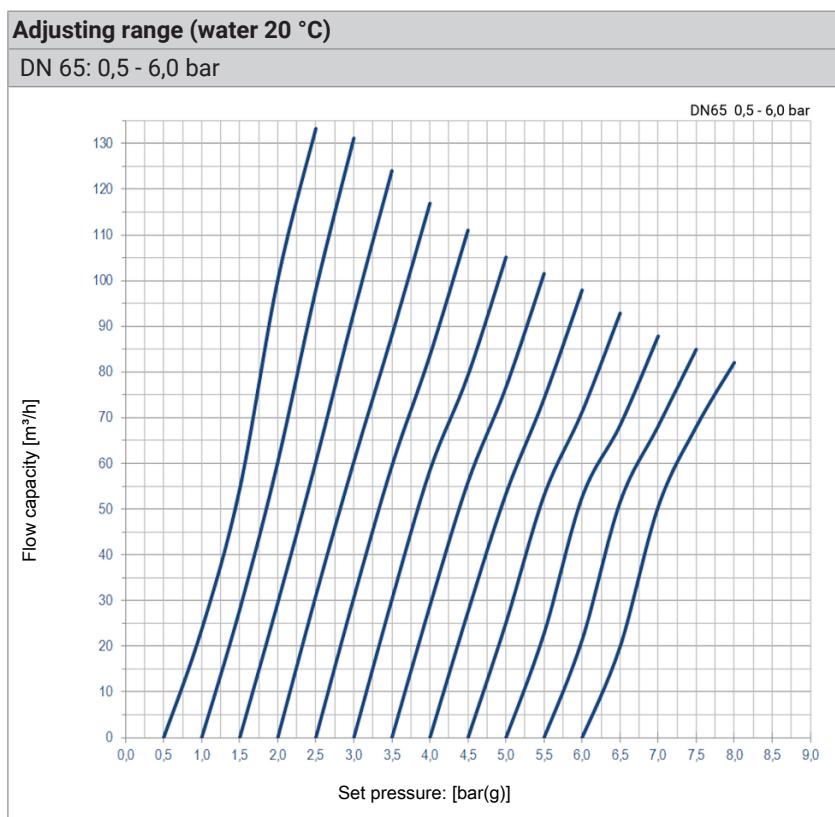
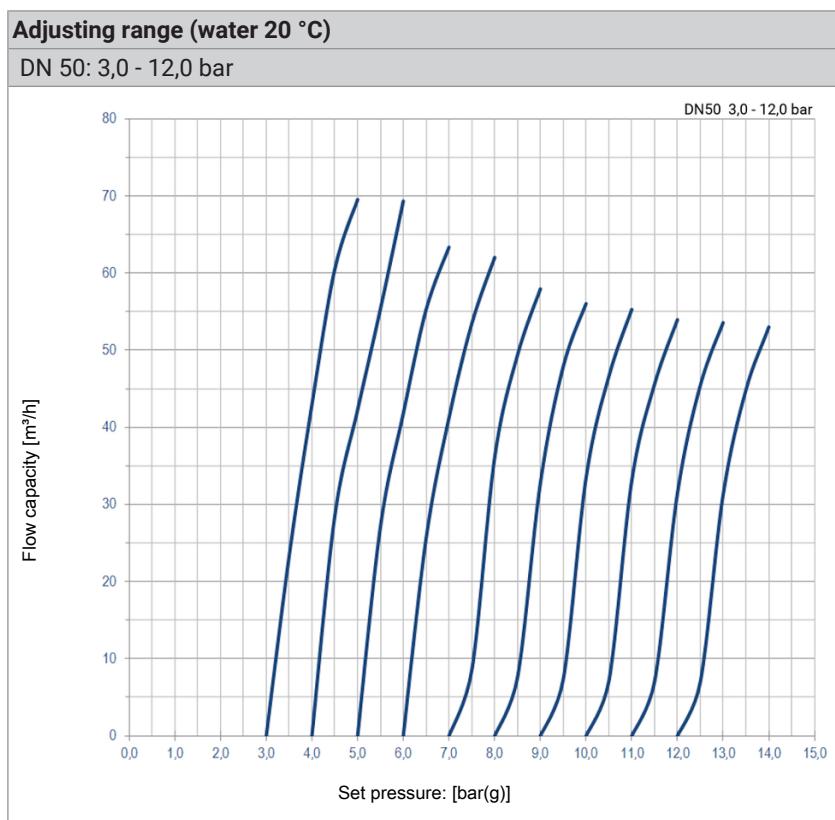
## 11 Characteristic curves

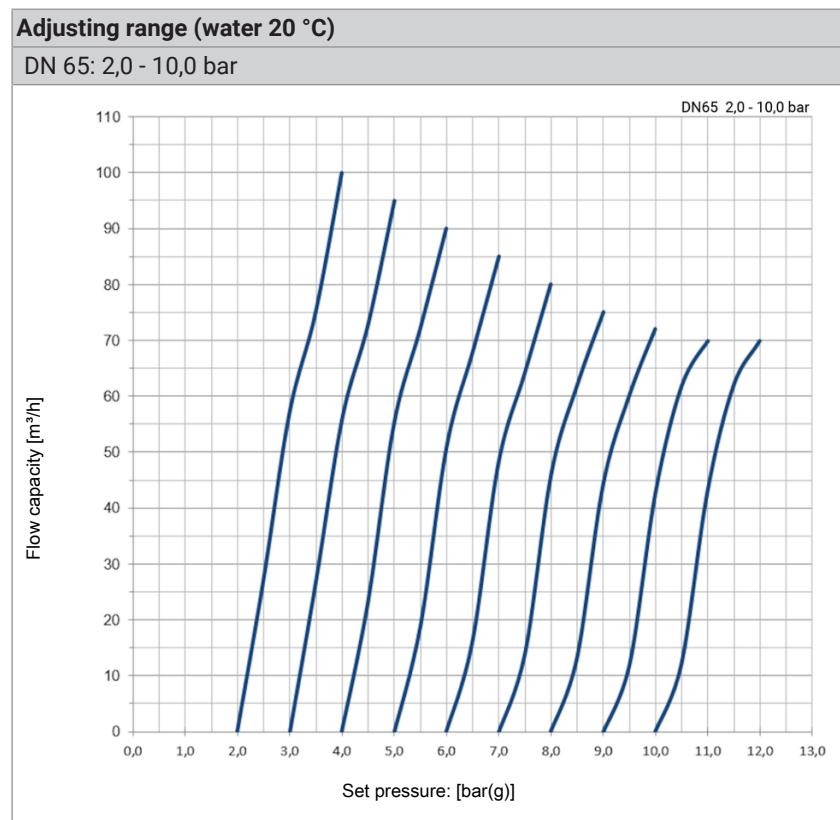
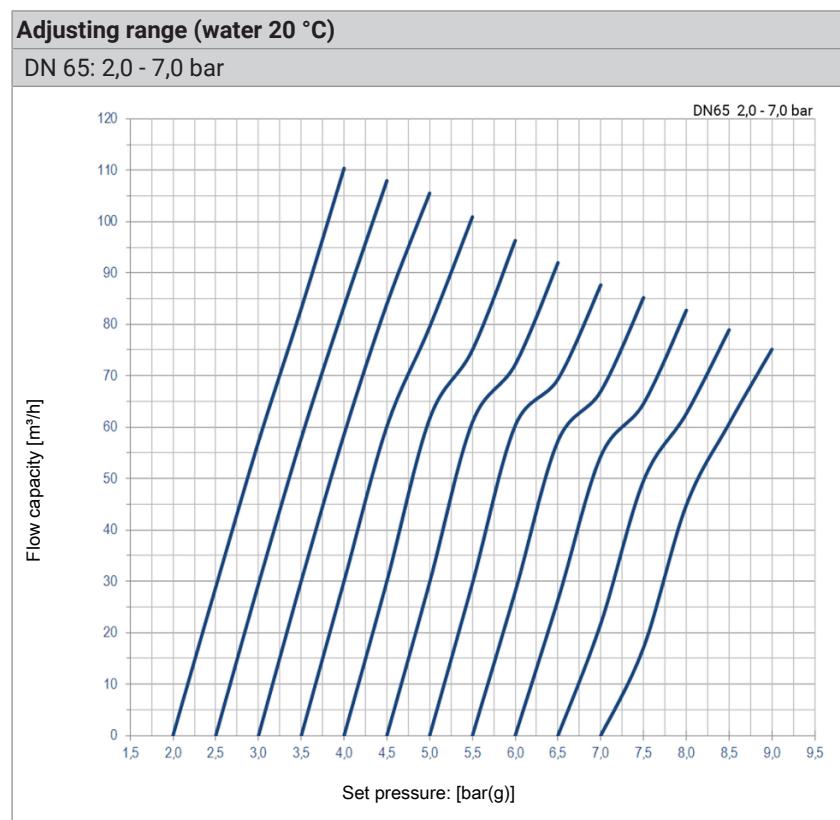
### 11.1 Performance chart

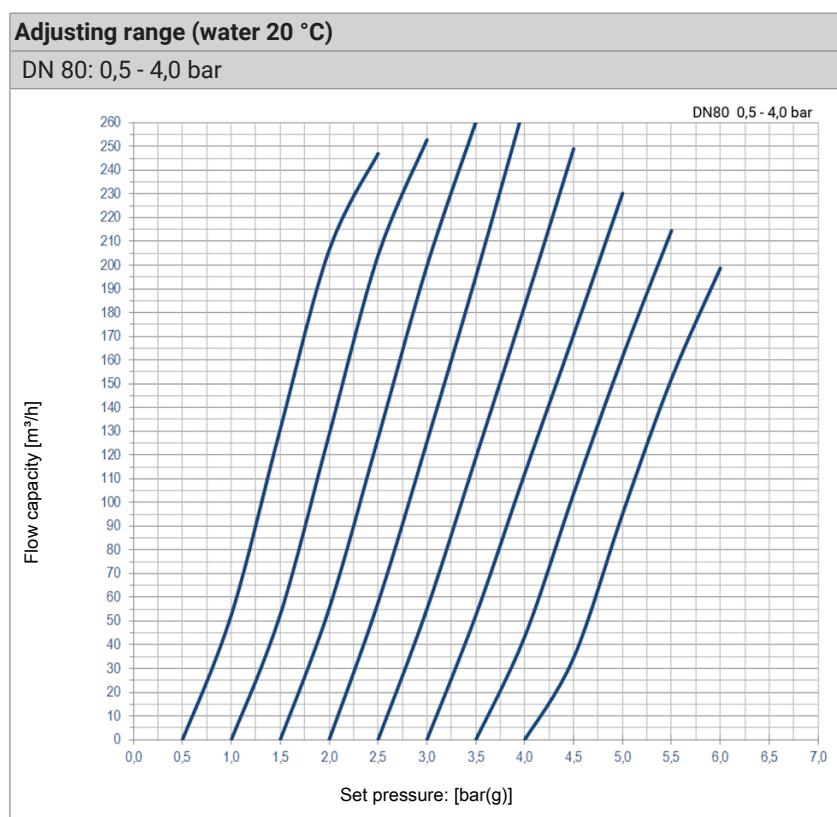
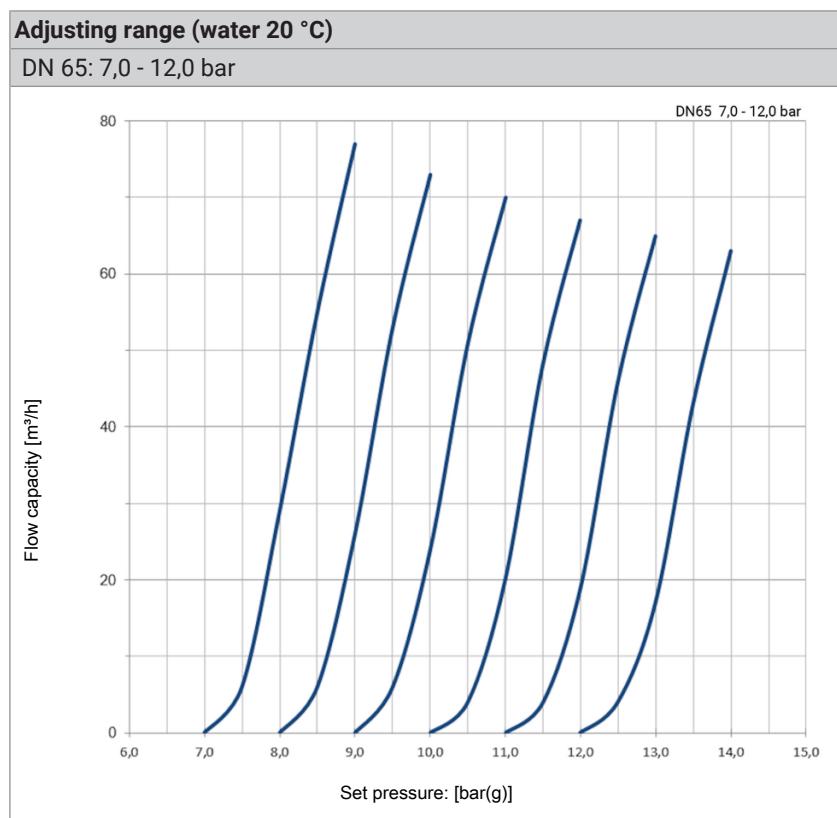


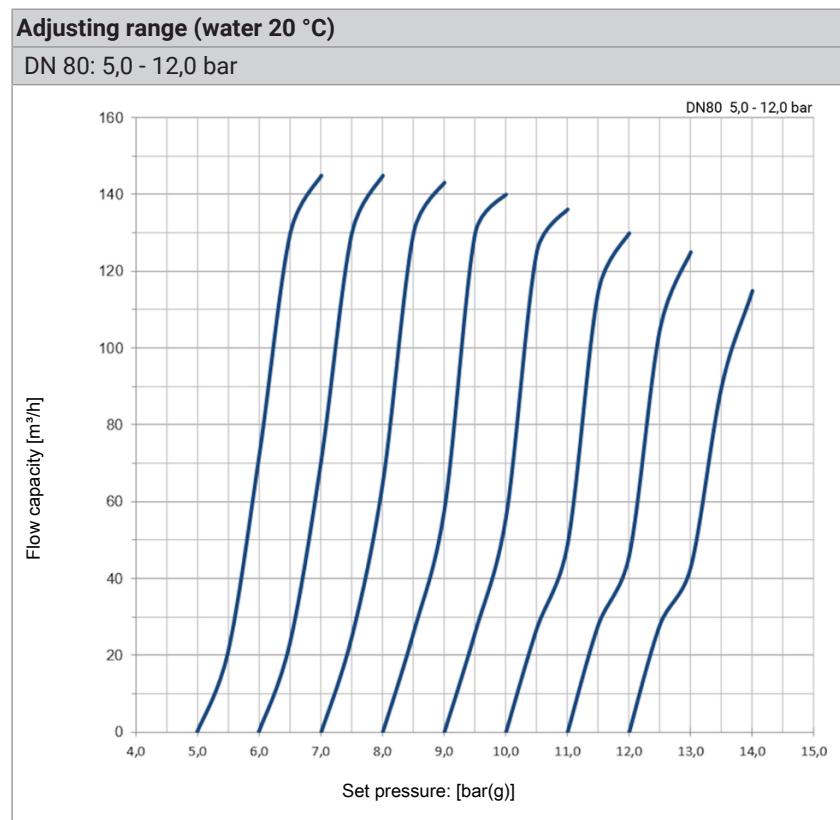
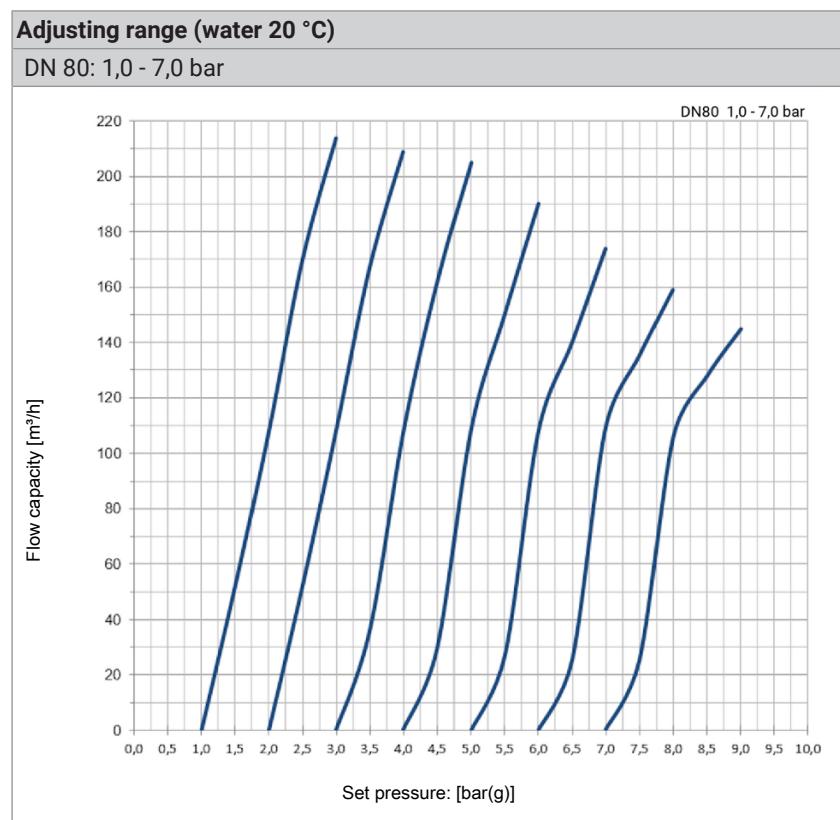


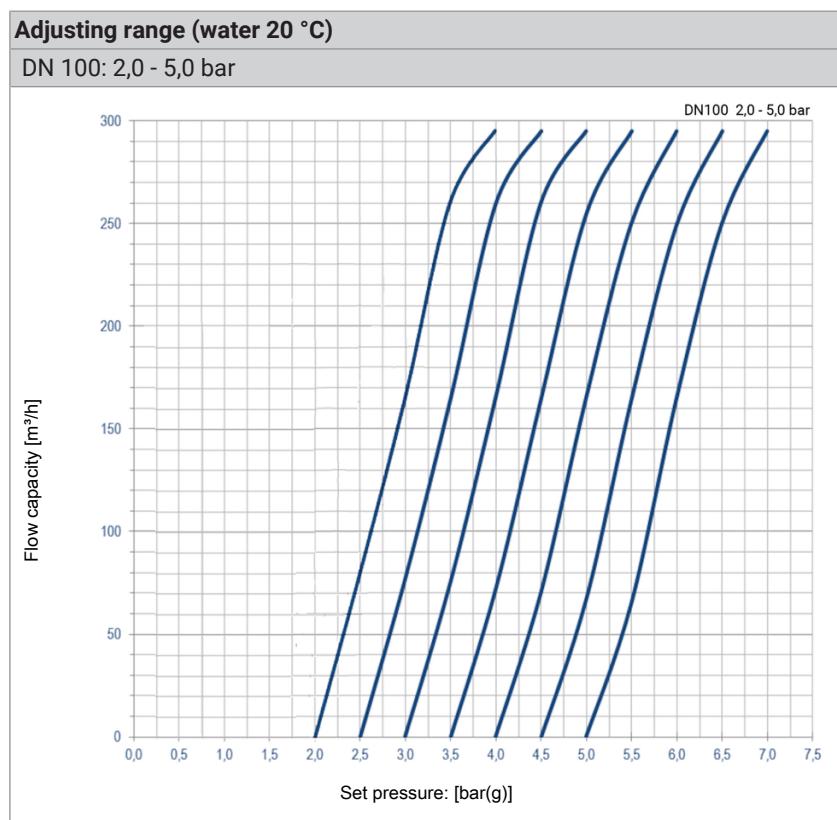
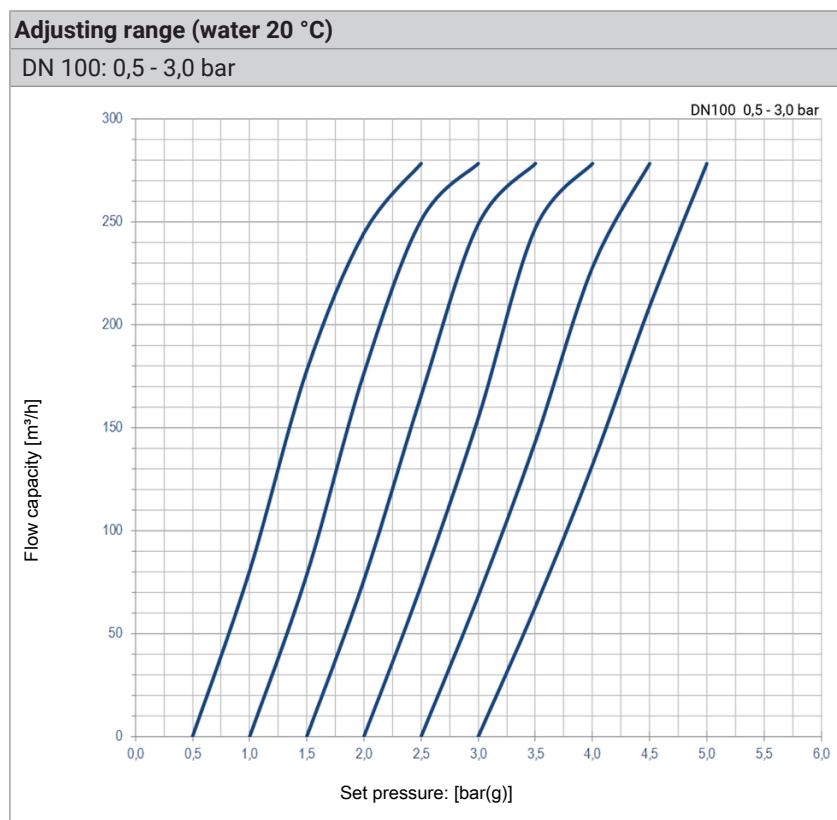


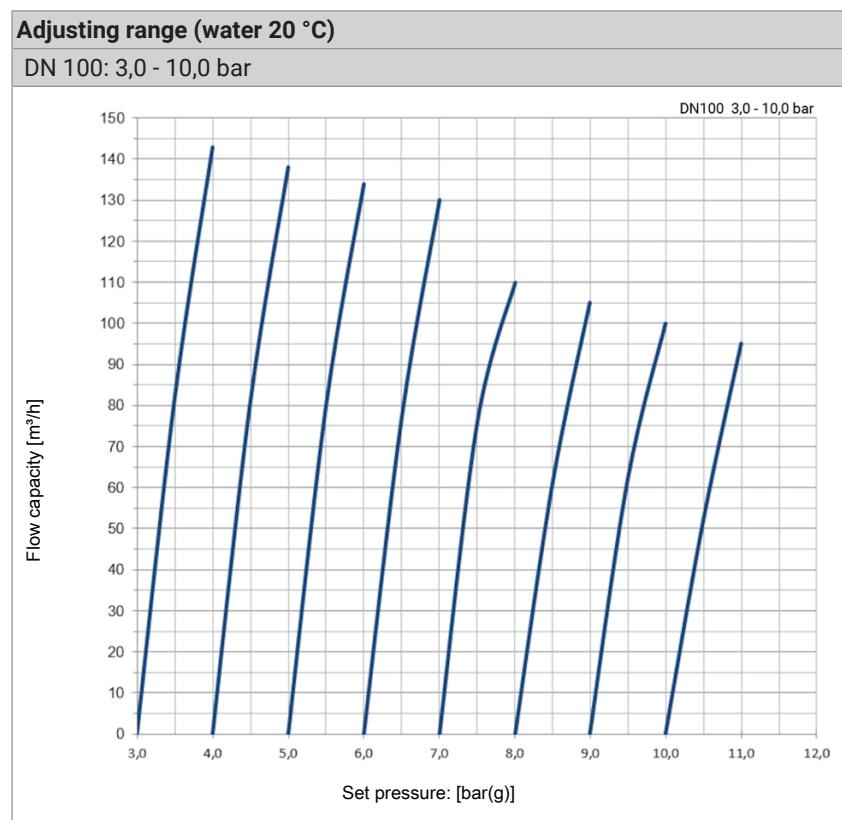












## 11.2 Opening & closing characteristics

### Opening and closing characteristics

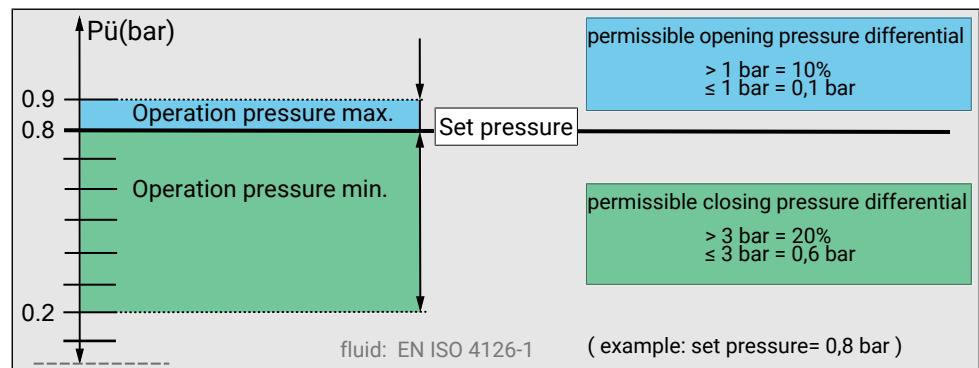


Illustration 1

## 12 Appendix

### 12.1 Declaration of incorporation



#### Declaration of incorporation

Translation of the original

Manufacturer / authorised representative:

KIESELMANN GmbH  
Paul-Kieselmann-Str. 4-10

75438 Knittlingen  
Germany

Authorised representative:

Achim Kauselmann

(for compiling technical documents)

Paul-Kieselmann-Str. 4-10

75438 Knittlingen  
Germany

Product name	Function
pneum. Lift actuators	Stroke movement
pneum. Rotary actuators	Rotary movement
Ball valves	Media cutoff
Butterfly valves	Media cutoff
Single seat valves	Media cutoff
Flow control valves	Control of liquefied media
Throttle valve	Control of liquefied media
Overflow valve	Definition of fluid pressure
Double seat valve	Media separation
Bellow valves	Sampling of liquids
Sampling valves	Sampling of liquids
Two way valves	Media cutoff
Tankdome fitting	Prevention of overpressure and vacuum, Tank cleaning
Safety valve	Prevention of overpressure

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, 21.07.2017

i.V. Uwe Heisswolf  
Head of Development