KIESELMANN
FLUID PROCESS GROUP

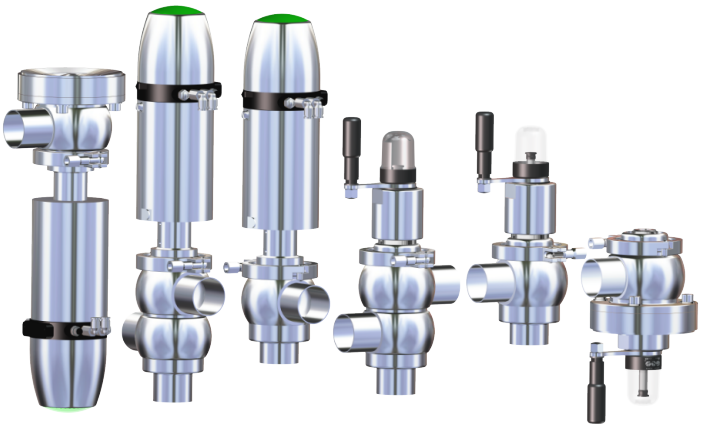
Translation of the original

Operating Instructions

KI-DS Single seat valves

pneumatic und manual operation

Inclined seat valve:	5501, 5502
Angle valve:	5505, 5506
T-valve:	5507, 5508
Cross valve:	5511, 5512
Two-way-changeover valve:	5513, 5514
Two-way-changeover valve:	5515, 5516
Loop valve:	5517, 5518
Tank outlet valve:	5527, 5528



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Table of contents

1 General informations 4
1.1 Informations for your safety 4
1.2 Marking of security instructions 4
1.3 General designated use 4
1.4 Personnel 4
1.5 Modifications, spare parts, accessories 5
1.6 General instructions 5
2 Safety instructions 6
2.1 Intended use 6
2.2 General notes 6
2.3 General safety instructions 6
3 Delivery, transport and storage 8
3.1 Delivery 8
3.2 Transport 8
3.3 Storage 8
4 Specification 9
4.1 Modular system 9
4.2 Valve types 10
5 Function and operation 11
5.1 Description of function 11
5.2 Valve basic position: 12
5.3 Control system and position indicator 13
5.4 Pneumatic valve activation 14
6 Commissioning, service and maintenance 15
6.1 Commissioning 15
6.1.1 Installation instructions 15
6.1.2 General welding guidelines 15
6.1.3 Use in EX area 15
6.2 Maintenance 16
6.3 Cleaning 16
7 Technical data 17
7.1 Operating pressure 18
8 Disassembly and assembly 21
8.1 Valves with manual operating 21
8.2 Valves with pneumatic operation 24
8.3 Tank outlet valve 26
8.4 Assembly 27
9 Drawings and dimensions 29
9.1 Drawings 29
9.2 Dimensions 31
9.3 Control units 36
10 Wearing parts 37
10.1 Wearing parts list 37
10.2 Wear parts kit 39
11 Classification 41
11.1 Structure of Order Number 41
12 Appendix 43
12.1 Declaration of incorporation 43

1 General informations

1.1 Informations for your safety

We are pleased that you have decided for a high-class KIESELMANN 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 - 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 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 Single seat valve is used in the beverage and food industry, in pharmaceutical, bio-engineering, as well as in chemical engineering.

Inclined seat valves, Angle valves, T-valves, Cross valves, Loop valves and Tank outlet valves are used as manually or pneumatically controlled Shut-off valves, Change-over valves are used as Multi-port valves in industrial installations.

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 moving parts

When dismount the clamp coupling, the spring preloaded valve insert (air open - spring close) may incur serious injuries by jumping out of the housing.

- First pneumatically open the valve before disassembling the clamp coupling, so that upstroke the piston.
- Remove the valve core.
- Remove the control air line at valve insert.

⇨ 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.

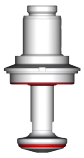
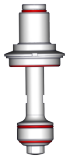
- To avoid damage to seals and bearings,
  - products up to DN 125 / OD 5 inch should be stored horizontally for maximum 6 months.
  - products larger than DN 125 / 5 inch, should be stored in the upright position with the actuator on top.
- Don't store any objects on the products.
- Protect the products 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 60% ±5%).
- Protect seals, bearings and plastic parts for UV light and ozone.

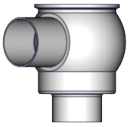
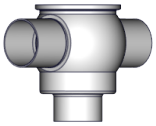
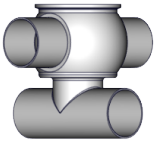
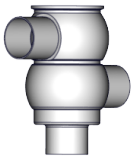
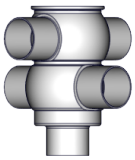
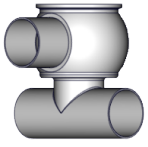
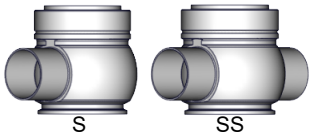
4 Specification

4.1 Modular system

Control head KI-Top		feedback unit
		
Cap: Stainless steel	Cap: Transparent	with Contact protection

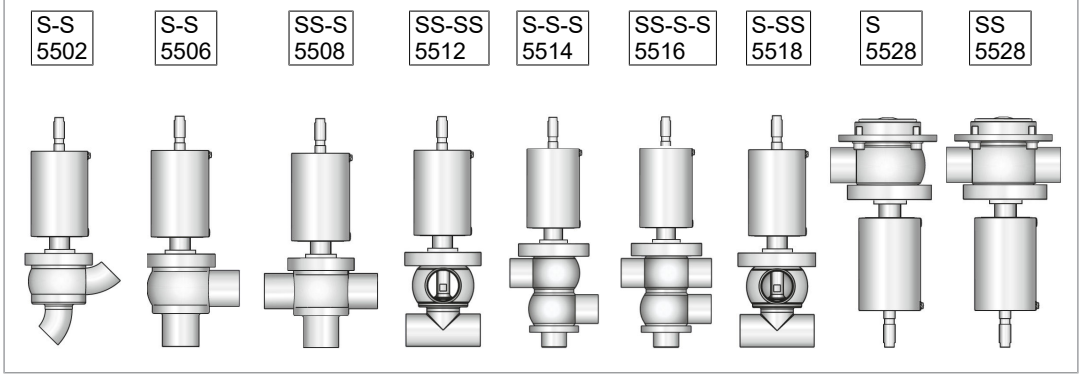
Linear actuator		
Manual	pneumatic	
	 Ø104	 Ø129
	 Ø167	 Ø230

Valve insert
Angle valve   Changeover valve
HNBR, EPDM, FKM

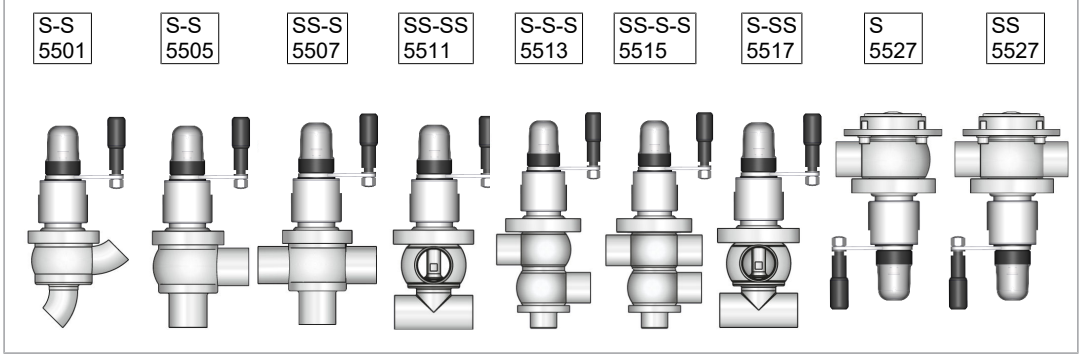
Valve housing		
 Y-type valve	 Angle valve	 T-valve
 Cross valve	 S-S-S  SS-SS-S Two-way-changeover valve	 Loop valve
 S SS Tank outlet valve		

4.2 Valve types

Linear actuator: pneumatic



Linear actuator: Manual



5 Function and operation

5.1 Description of function

Valve function:	• Inclined seat valve, Angle valve, T-valve, Cross valve, Loop valve, Tank outlet valve – Shut off fluid media in pipelines (see Fig.A and B) • Changeover valve – Control fluid media in pipelines (see Fig.A and B)
Operation:	• pneumatic operation by a lift drive (air/spring or air/air) • manual operation by a crank-handle (open / close)
Activation:	• Pneumatically over a 3/2-way solenoid valve (see “Pneumatic valve activation“)

Description of function - Lift actuator

Safety position closed [Fail-closed (FC)]	
pneum. operated	→opens the valve
not pneum. operated	→spring force closes the valve

Safety position open [Fail-open (FO)]	
pneum. operated	→valve “CLOSE“
not pneum. operated	→spring force opens the valve

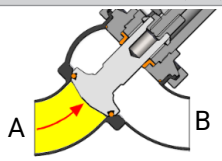
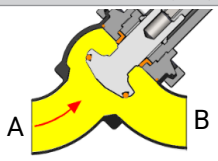
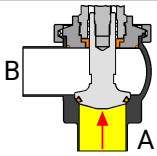
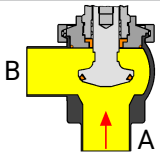
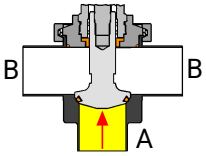
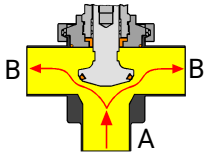
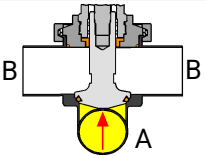
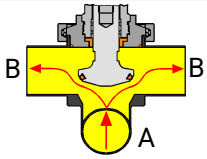
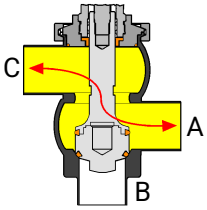
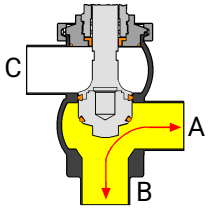
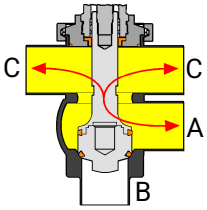
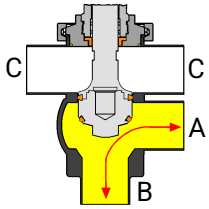
Safety position not defined [Double acting (DA)][1]	
pneum. operated	→opens the valve
not pneum. operated	→valve “CLOSE“

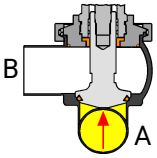
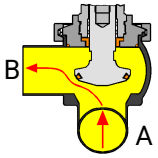
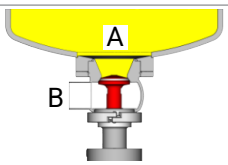
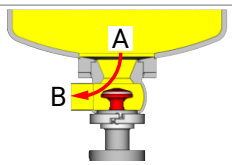
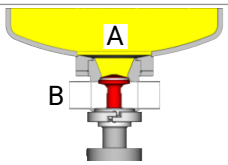
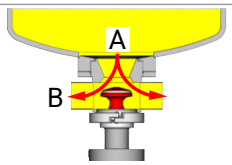
1. The valve position is not defined in case of decrease of pressure in the compressed air line.

5.2 Valve basic position:

INFORMATION

- Actuator AIR/AIR : Valve assemblies with double acting actuators will fall into an undefined stroke position.
- Actuator AIR/SPRING: The basic position of the valve is closed or opened depending on the kind of actuator.

Basic positon: Kind of actuation:	Valve closed Normally closed (NC)	Valve open Normally open (NO)
Type: 5502 S-S Inclined seat valve	 Line A - B closed	 Line A - B open
Type: 5506 S-S Angle valve	 Line A - B closed	 Line A - B open
Type: 5508 SS-S t-valve	 Line A - B closed	 Line A - B open
Type: 5512 SS-SS cross valve	 Line A - B closed	 Line A - B open
Type: 5514 S-S-S Changeover valve	 Line A - B closed Line A - C open	 Line A - B open Line A- C closed
Type: 5516 SS-S-S Changeover valve	 Line A - B closed Line A - C open	 Line A - B open Line A - C closed

Basic positon: Kind of actuation:	Valve closed Normally closed (NC)	Valve open Normally open (NO)
Type: 5518 S-SS Loop valve	 Section A - B closed	 Section A - B opened
Type: 5528 S Tank outlet valve	 Line A - B closed	 Line A - B open
Type: 5528 SS Tank outlet valve	 Section A - B closed	 Section A - B opened

5.3 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.

5.4 Pneumatic valve activation

Valve function	Pneum. activation via control head with solenoid valves (MV)	Pneum. activation via external solenoid valves (MV external)
Kind of actuator: normally closed (NC)		
Valve OPEN by pressurised air	control air feed P → MV1 → P1/LA2	control air feed ext. MV → LA2
Valve CLOSED by spring tension	de-aeration LA2/P1 → MV1 → R	de-aeration LA2 → ext. MV
Kind of actuator: normally open (NO)		
Valve OPEN by spring tension	de-aeration P1/LA1 → MV1 → R	de-aeration LA1 → ext. MV
Valve CLOSED by pressurised air	control air feed P → MV1 → P1/LA1	control air feed ext. MV → LA1
Kind of actuator: double acting (DA)		
Valve OPEN by pressurised air	control air feed P → MV1 → P1/LA2	control air feed ext. MV → LA2
Valve CLOSED by pressurised air	control air feed P → MV3 → P3/LA1	control air feed ext. MV → LA1

D = De-aeration

E = sensor mounting

LA = Air connection

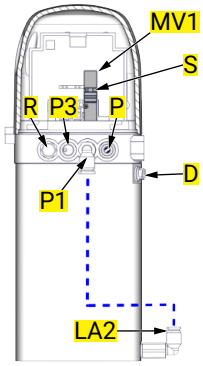
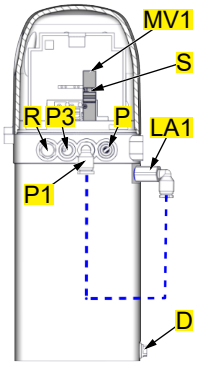
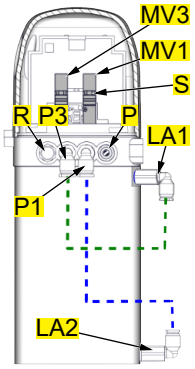
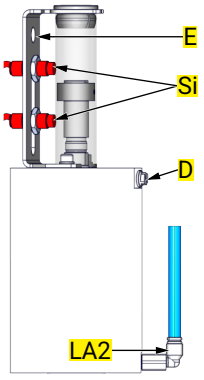
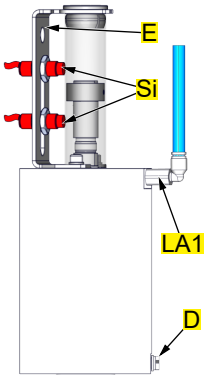
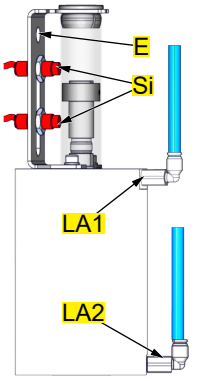
MV = Solenoid valve

P = Supply air connection

R = Ventilation silencer

S = Slide switch for manual operation of the solenoid valve

Si = Sensor inductive

NC	NO	DA
		
		

6 Commissioning, service and maintenance

6.1 Commissioning

6.1.1 Installation instructions

Fitting position

- The installation position is without importance.



NOTICE

If installed horizontally, some minor residual liquids will remain in the ball-shape of the housing.

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 Use in EX area

For valves or plants/installations that are operated in the ATEX area, sufficient bonding (grounding) must be ensured. (see e.g. ATEX Directives EC; UKSI 696:2019-Schedule 25)

6.2 Maintenance

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; PTFE; 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 of the inner housing is performed with the pipe cleaning system.

7 Technical data

Model	KIDS Single seat valve • Manual actuation • Pneumatic actuation	
Size	DIN: DN 25 - DN 125 Inch: OD 1“ - OD 4“	
Connection type	• Weld-on end DIN EN 10357	
Pressure nominal (bar)	PN 16	
Temperature range	Ambient temperature: (air) Operating temperature: (depends on medium) Sterilisation temperature: (SIP 30 min)	+4° to +45°C +0° to +95°C HNBR +120°C EPDM +140°C FKM +110°C
Leakage rate	A (EN 12266-1)	
Control air ≤ DN 65 / 2½“ ≥ DN 80 / 3“	Control air pressure: 5,5 - 8,0 bar 6,0 - 8,0 bar	Control air quality: ISO 8573-1:2010 [3:(≤5 µm):4:4]
Material (in contact with product)	Stainless steel: Surface: Sealing material:	1.4404 / AISI 316L Ra ≤ 0,8µm metallic bright; e-polished • HNBR • EPDM • FKM

Torque: clamp coupling

DN	25	40	50	65	80	100
Inch	1	1½	2	2½	3	4
Torque [Nm]	15	15	15	25	25	55

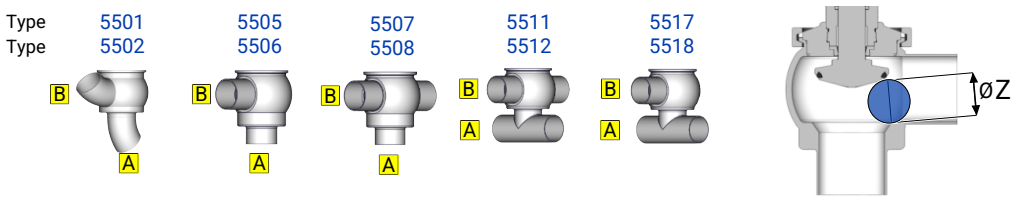
7.1 Operating pressure

Operating pressure for valves with manual operating

ND Inch	25 1	40 1½	50 2	65 2½	80 3	100 4
Drive	crank handle	crank handle	crank handle	crank handle	crank handle	crank handle
	A | B | C	A | B | C	A | B | C	A | B | C	A | B | C	A | B | C
Valves with manual operating	10	10	10	10	10	10

Operating pressure for pneumatic seat valves

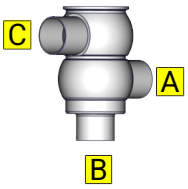
Nominal size	Operating direction	Stroke	ØZ	Opening- / Closing pressure difference* [bar] per actuator size (ØA)										KVS	
				ø104		ø129		ø167		ø190		ø230		A→B	B→A
		mm	mm	A	B	A	B	A	B	A	B	A	B	m³/h	m³/h
DN 25	FC ↓	18.0	13.0	10.0	16.0	16.0	16.0	-	-	-	-	-	-	21	24
	FO ↑	12.0	7.5	10.7	14.7	16.0	16.0	-	-	-	-	-	-		
DN 40	FC ↓	30.0	24.0	8.0	16.0	12.9	16.0	-	-	-	-	-	-	43	47
	FO ↑	24.0	18.5	8.0	16.0	14.7	16.0	-	-	-	-	-	-		
DN 50	FC ↓	24.0	15.8	7.1	14.4	11.6	16.0	16.0	16.0	-	-	-	-	82	77.0
	FO ↑			6.8	12.6	11.5	16.0	13.9	16.0	-	-	-	-		
DN 65	FC ↓	24.0	15.2	-	-	7.0	12.0	15.5	15.3	-	-	-	-	145	138
	FO ↑			-	-	7.0	10.9	8.4	16.0	-	-	-	-		
DN 80	FC ↓	28.5	19.0	-	-	-	-	9.7	10.4	14.5	10.5	14.5	16.0	200	212
	FO ↑			-	-	-	-	5.0	14.5	3.0	16.0	16.0	16.0		
DN 100	FC ↓	28.5	18.2	-	-	-	-	6.7	6.9	10.0	7.0	10.0	16.0	274	299
	FO ↑			-	-	-	-	3.4	9.6	2.1	14.7	11.3	14.7		
DN 125	FC ↓	28.5	20.2	-	-	-	-	-	-	-	-	6.0	10.2	424	380
	FO ↑			-	-	-	-	-	-	-	-	6.8	8.8		
OD 1	FC ↓	14.0	9.0	10.7	16.0	16.0	16.0	-	-	-	-	-	-	20	23
	FO ↑	8.0	4.5	11.4	13.7	16.0	16.0	-	-	-	-	-	-		
OD 1½	FC ↓	26.5	21.5	8.6	16.0	14.0	16.0	-	-	-	-	-	-	41	45
	FO ↑	20.5	15.5	9.2	16.0	15.7	16.0	-	-	-	-	-	-		
OD 2	FC ↓	21.5	13.6	7.4	13.9	12.2	16.0	16.0	16.0	-	-	-	-	74	69
	FO ↑			6.8	12.6	12.1	16.0	14.8	16.0	-	-	-	-		
OD 2½	FC ↓	18.0	10.6	-	-	7.9	10.9	16.8	13.6	-	-	-	-	138	132
	FO ↑			-	-	7.9	9.8	9.8	16.0	-	-	-	-		
OD 3	FC ↓	28.5	19.0	-	-	-	-	9.7	10.4	14.5	10.5	14.5	16.0	190	202
	FO ↑			-	-	-	-	5.0	14.5	3.0	16.0	16.0	16.0		
OD 4	FC ↓	26.0	16.2	-	-	-	-	6.9	6.6	10.4	6.5	10.4	16.0	261	285
	FO ↑			-	-	-	-	3.7	9.3	2.5	14.2	11.8	14.2		



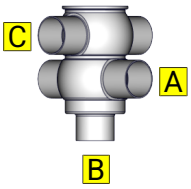
Operating pressure for pneumatic changeover valves

Nominal size	Operating direction	Stroke	Opening- / Closing pressure difference* [bar] per actuator size (ØA)															KVS	
			ø104			ø129			ø167			ø190			ø230			A→B	B→A
		mm	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	m³/h	m³/h
DN 25	FC ↓	21.0	8.0	8.9	6.8	13.8	15.5	10.3	-	-	-	-	-	-	-	-	-	23	15
	FO ↑		8.3	8.6	7.1	13.3	13.7	12.1	-	-	-	-	-	-	-	-	-		
DN 40	FC ↓	28.5	8.0	7.7	6.8	13.8	13.4	10.3	-	-	-	-	-	-	-	-	-	46	35
	FO ↑		7.8	7.4	7.1	12.5	11.6	12.1	-	-	-	-	-	-	-	-	-		
DN 50	FC ↓	34.0	8.0	7.0	6.8	13.8	12.1	10.3	-	-	-	-	-	-	-	-	-	67	55
	FO ↑		7.4	6.6	7.1	11.9	10.3	12.1	-	-	-	-	-	-	-	-	-		
DN 65	FC ↓	31.0	5.6	4.3	4.3	8.7	7.1	6.5	16.0	15.0	10.2	-	-	-	-	-	-	126	83
	FO ↑		5.3	4.4	4.5	8.8	7.2	6.6	13.6	10.6	14.1	-	-	-	-	-	-		
DN 80	FC ↓	31.0	-	-	-	3.8	3.8	3.5	7.1	7.5	5.3	-	-	-	11.1	12.3	12.2	194	140
	FO ↑		-	-	-	4.6	4.8	2.7	7.2	7.5	5.4	-	-	-	14.7	16.0	8.5		
DN 100	FC ↓	34.0	-	-	-	3.7	2.8	3.5	6.9	5.5	5.3	-	-	-	11.1	9.2	12.0	260	166
	FO ↑		-	-	-	3.7	2.8	3.5	7.0	5.5	5.4	-	-	-	13.5	11.4	9.4		
DN 125	FC ↓	48.0	-	-	-	-	-	-	-	-	-	-	-	-	9.0	7.0	8.0	421	277
	FO ↑		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
OD 1	FC ↓	17.0	8.0	8.9	6.8	13.8	15.5	10.3	-	-	-	-	-	-	-	-	-	23	15
	FO ↑		8.3	8.6	7.1	13.3	13.7	12.1	-	-	-	-	-	-	-	-	-		
OD 1½	FC ↓	25.5	8.0	7.7	6.8	13.8	13.4	10.3	-	-	-	-	-	-	-	-	-	46	35
	FO ↑		7.8	7.4	7.1	12.5	11.6	12.1	-	-	-	-	-	-	-	-	-		
OD 2	FC ↓	31.5	8.0	7.0	6.8	13.8	12.1	10.3	-	-	-	-	-	-	-	-	-	67	55
	FO ↑		7.4	6.6	7.1	11.9	10.3	12.1	-	-	-	-	-	-	-	-	-		
OD 2½	FC ↓	25.5	5.6	4.3	4.3	8.7	7.1	6.5	16.0	15.0	10.2	-	-	-	-	-	-	126	83
	FO ↑		5.3	4.4	4.5	8.8	7.2	6.6	13.6	10.6	14.1	-	-	-	-	-	-		
OD 3	FC ↓	28.5	-	-	-	3.8	3.8	3.5	7.1	7.5	5.3	-	-	-	11.1	12.3	12.2	194	140
	FO ↑		-	-	-	4.6	4.8	2.7	7.2	7.5	5.4	-	-	-	14.7	16.0	8.5		
OD 4	FC ↓	34.0	-	-	-	3.7	2.8	3.5	6.9	5.5	5.3	-	-	-	11.1	9.2	12.0	260	166
	FO ↑		-	-	-	3.7	2.8	3.5	7.0	5.5	5.4	-	-	-	13.5	11.4	9.4		

Typ 5513
Typ 5514



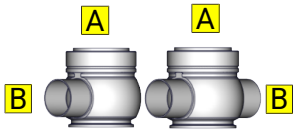
Typ 5515
Typ 5516

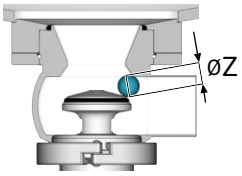


Operating pressure for pneumatic tank outlet valves

Nominal size	Operating direction	Stroke	ØZ	Opening- / Closing pressure difference* [bar] per actuator size (ØA)					KVS	
				ø104	ø129	ø167	ø190	ø230	A→B	B→A
		mm	mm	A	A	A	A	A	m³/h	m³/h
DN 25	FC ↓	18.0	10.0	13.6	-	-	-	-	20	21
	FO ↑	11.0	6	13.0	-	-	-	-		
DN 40	FC ↓	23.0	9.5	9.0	-	-	-	-	41	42
	FO ↑			8.5	-	-	-	-		
DN 50	FC ↓	24.0	12.8	7.0	12.0	-	-	-	79	68
	FO ↑			6.6	10.5	-	-	-		
DN 65	FC ↓	25.5	12.0	-	6.8	15.4	-	-	138	124
	FO ↑	24.0		-	7.0	8.5	-	-		
DN 80	FC ↓	28.5	14.5	-	-	9.5	14.0	14.0	195	190
	FO ↑			-	-	5.0	3.0	16.0		
DN 100	FC ↓	34.0	19.5	-	-	5.7	8.0	8.0	255	250
	FO ↑			-	-	2.3	1.1	10.0		
DN 125	FC ↓	28.5	20.0	-	-	-	-	6.0	424	380
	FO ↑			-	-	-	-	10.5		
OD 1	FC ↓	18.0	10.0	13.6	-	-	-	-	20	21
	FO ↑	11.0	6	13.0	-	-	-	-		
OD 1½	FC ↓	23.0	22.0	9.0	-	-	-	-	41	42
	FO ↑			8.5	-	-	-	-		
OD 2	FC ↓	24.0	13.6	7.0	12.0	-	-	-	79	68
	FO ↑			6.6	10.5	-	-	-		
OD 2½	FC ↓	25.5	10.6	-	6.8	15.4	-	-	138	124
	FO ↑	24.0		-	7.0	8.5	-	-		
OD 3	FC ↓	28.5	19.0	-	-	9.5	14.0	14.0	195	190
	FO ↑			-	-	5.0	3.0	16.0		
OD 4	FC ↓	34.0	16.2	-	-	5.7	8.0	8.0	255	250
	FO ↑			-	-	2.3	1.1	10.0		

Typ 5527
Typ 5528





8 Disassembly and assembly

T1		Combination wrench-Set	SW 8 - SW 24	-
T10		Joint -pin wrench	Pin Ø6	8027000065-000
T11		Hinged hook wrench	DN25 - DN100 90/155 V2A	8028025100-020
T12a		Articulated face wrench	40-80mm, Ø5 40-80mm, Ø6 80-125mm, Ø8	8028340085-000 8028340080-000 8028380125-000
T35		Pin punch	ø5	-

NOTICE

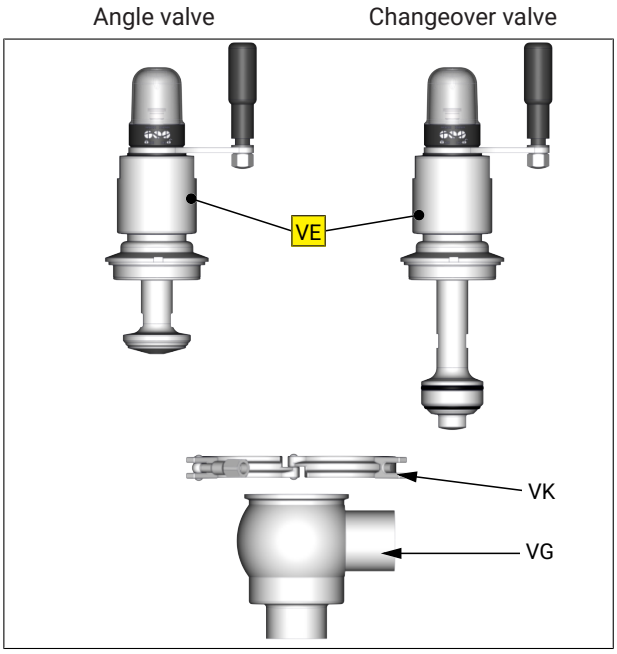
All threaded joint have right-hand thread.

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

8.1 Valves with manual operating

Assembly valve insert

- Unscrew the clamp coupling (VK).
- Dismount the valve insert (VE) out of the housing.



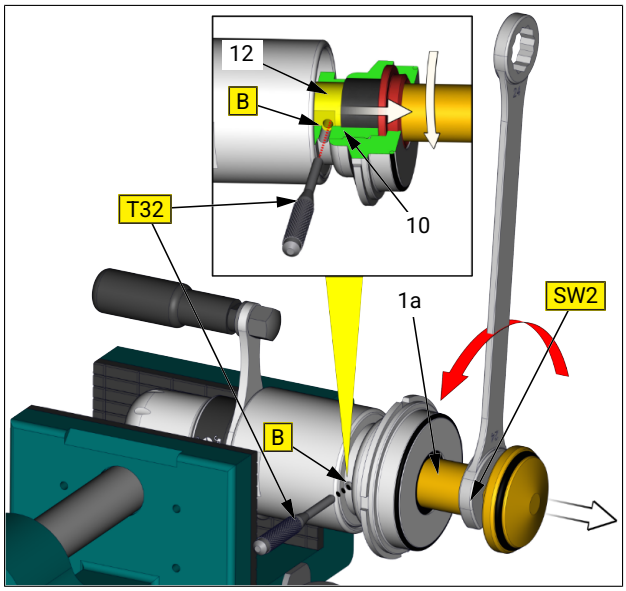
Replacement wear parts

- Unscrew the piston (1a) from spindle (12) (SW2).

  Counter with a pin punch (T32) at the bore hole (B, Ø5mm).

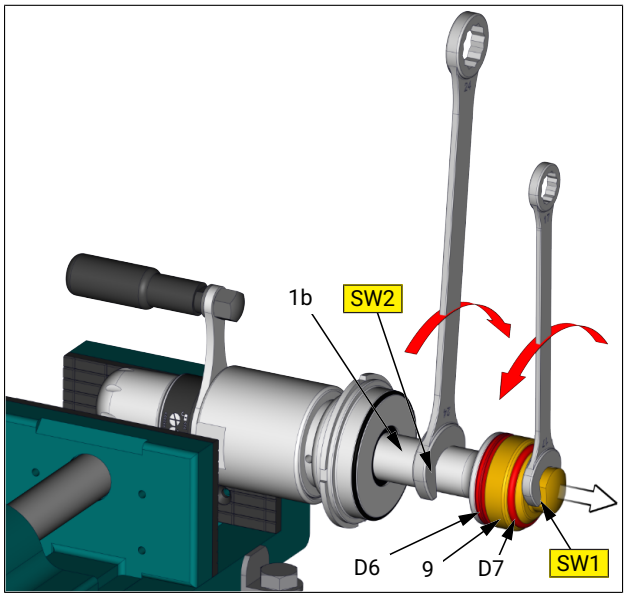
-

  The holes (B) in the housing (10) and the spindle (12) must be aligned so that the pin punch (T32) can be inserted into the spindle (12).



- Changeover valve:

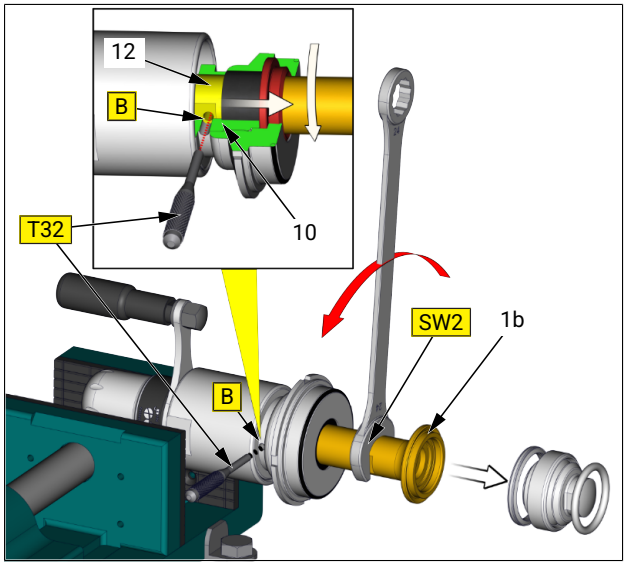
  Unscrew the piston plate (9) from piston (1b) (SW1/SW2).
- Remove seal (D6).



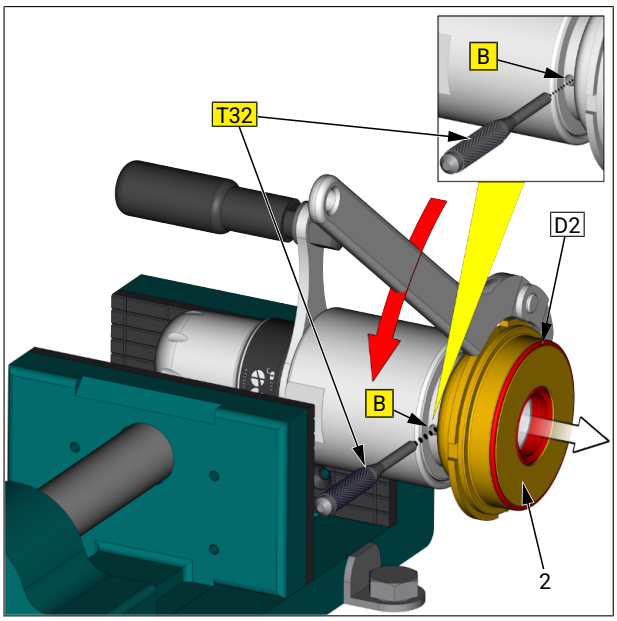
- Changeover valve:

  Unscrew the piston (1b) from spindle (12) (SW2).

  Counter with a pin punch (T32) at the bore hole (B, Ø5mm).

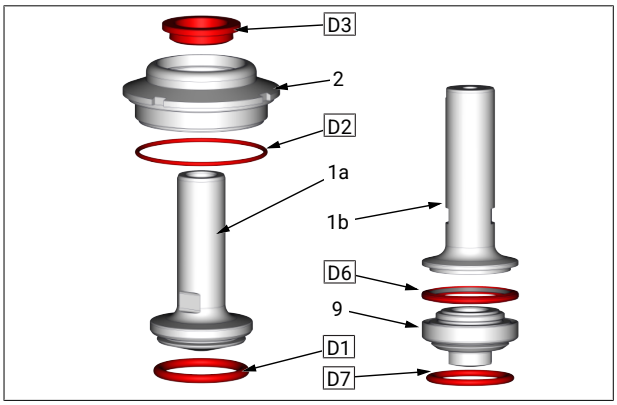


- Unscrew the insert (2) from the housing (11), using a hook wrench (T10).



- Remove O-ring (D1), (D2), (D7), seal (D6) and shaft seal (D3).

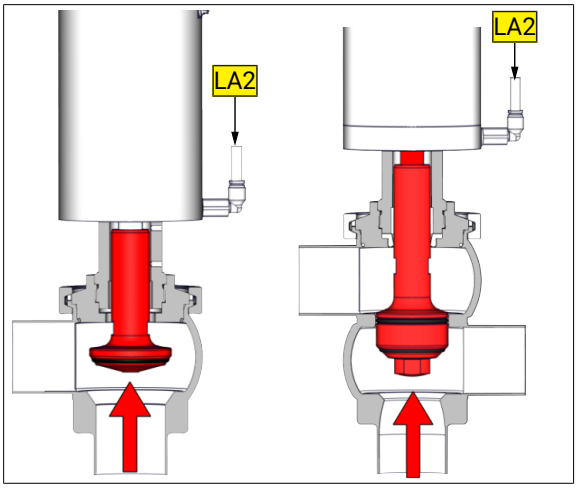
- Puncture the O-ring (D1) and (D7) with a needle and remove them carefully from the groove of piston.



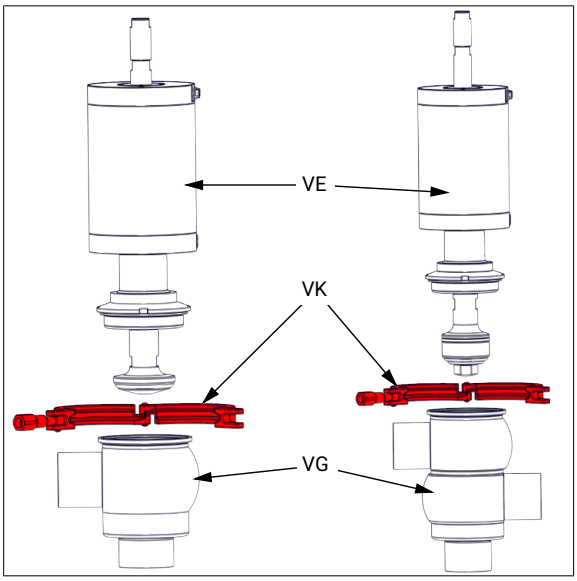
8.2 Valves with pneumatic operation

Assembly valve insert

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

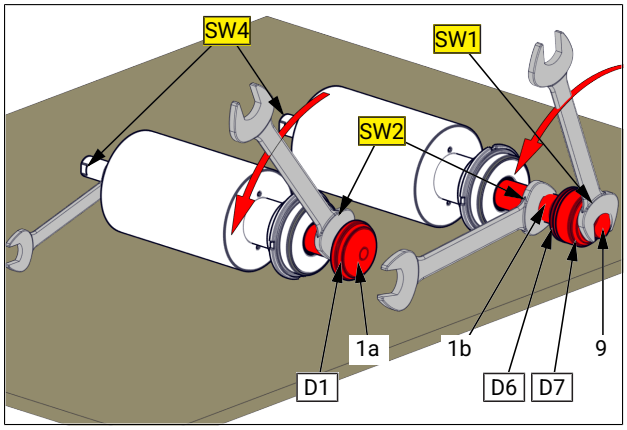


- Unscrew the clamp coupling (VK).
- Remove the complete valve insert with the upper shaft seal (D1) from the housing (VG).
- Disconnect compressed air at LA2 and depressurize the drive - The valve piston move in.
  - The valve piston returns to the basic position.

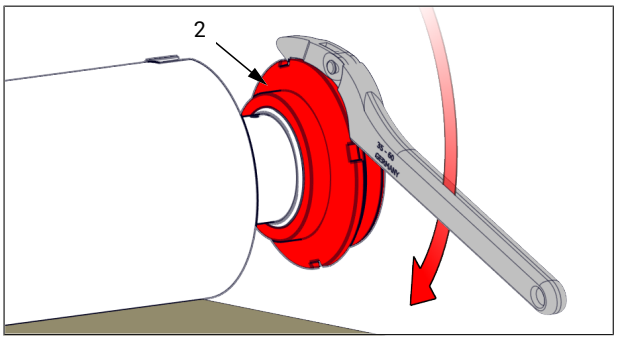


Replacement wear parts - Valve insert (VE)

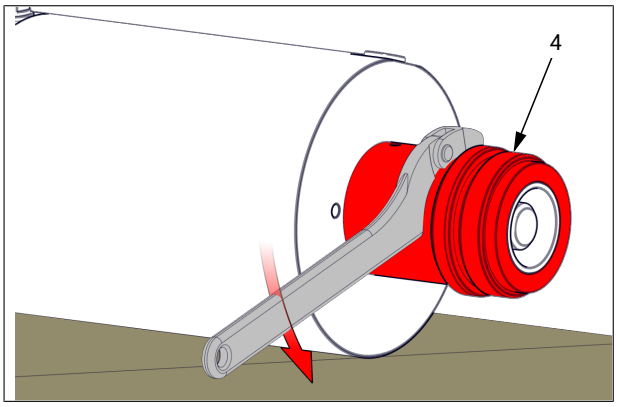
- Changeover valve: Unscrew the piston plate (9) from piston (1b) (SW1/SW2).
- Remove seal (D7) and O-ring (D6).
- Unscrew the piston (1a) resp. (1b) from spindle (6) (SW2/SW4).
- Remove the O-ring (D1).



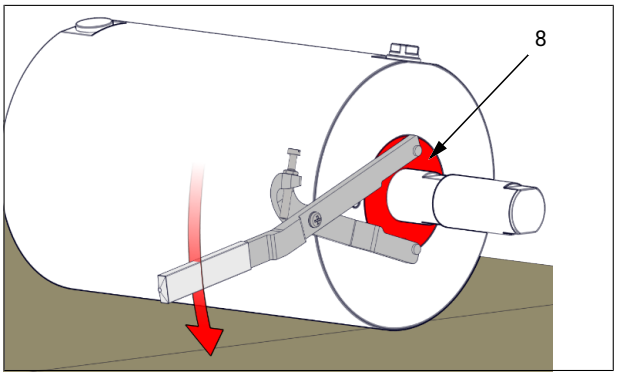
- Unscrew with a hook wrench (T11) the insert (2) from the lantern (4).
- Remove O-ring (2) and seal (D3).

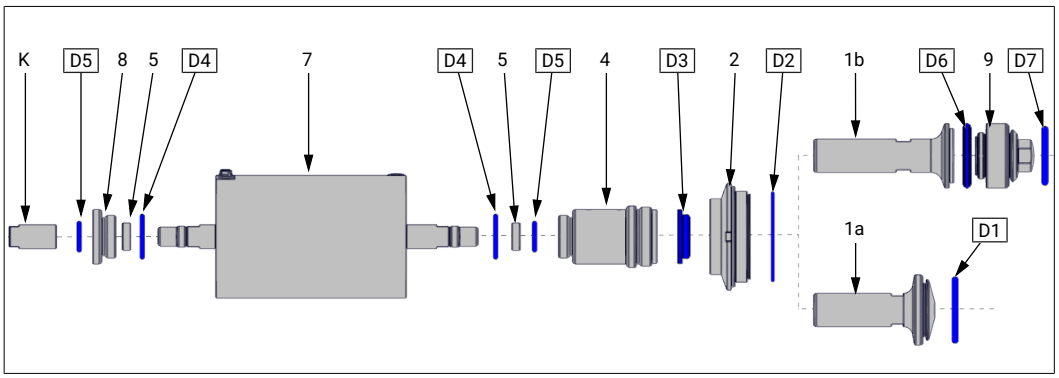


- Use a spanner (T10) to unscrew the lantern (4) from the drive (7).
- Remove the O-rings (D4) and (D5) from lantern (4).



- Unscrew the insert (8) from the actuator (7) with a pin type face spanner (T12).
- Remove the O-rings (D4) and (D5).

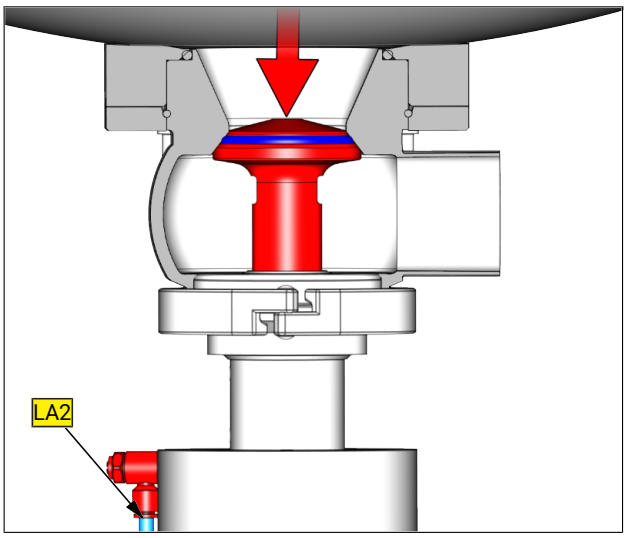




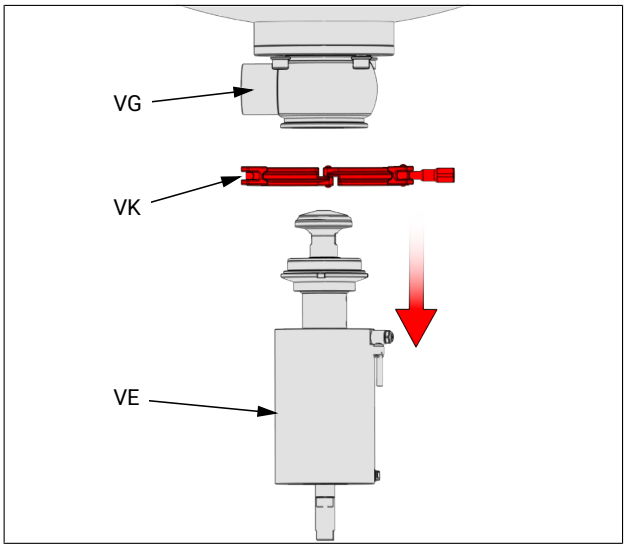
8.3 Tank outlet valve

Assembly valve insert

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



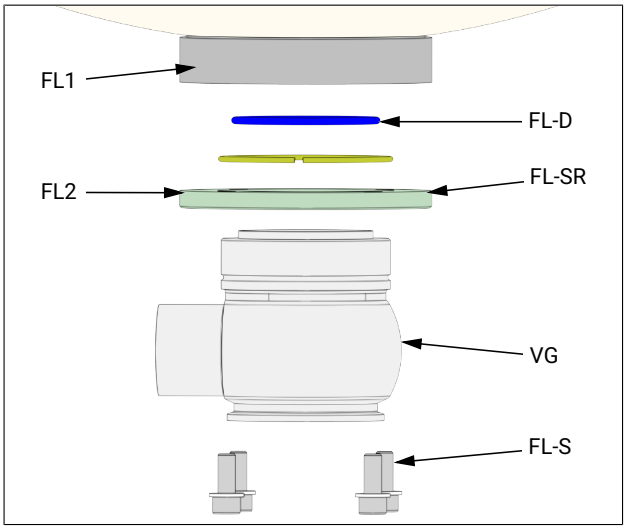
- Unscrew the clamp coupling (VK).
- Remove the complete valve insert with the upper shaft seal (D1) from the housing (VG).
- Disconnect compressed air at LA2 and depressurize the drive - The valve piston move in.
  - The valve piston returns to the basic position.



Replacement wear parts - Valve housing (VG)

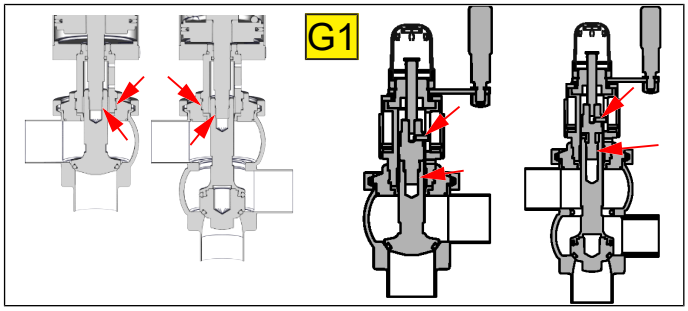
- Unscrew the screw (Fl-S).
- Remove valve housing (VG) with flange (FL2) and O-ring (Fl-D).
- Dismantling circlip ring (FL-SR) and flange (FL2) from the housing (VG).

NOTICE! Information for the "Disassembly of the valve insert" can be found under Tank outlet valve [▷ 26]



8.4 Assembly

- Mount the threaded connection (G1) with Screw retention detachable (e.g. Loctite 243) .



- Before installation, thoroughly clean and slightly lubricate mounting areas and running surfaces.
- Assemble in reverse order.

NOTICE

Alternately press and roll the O-rings into the groove with round body.

Performance test

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

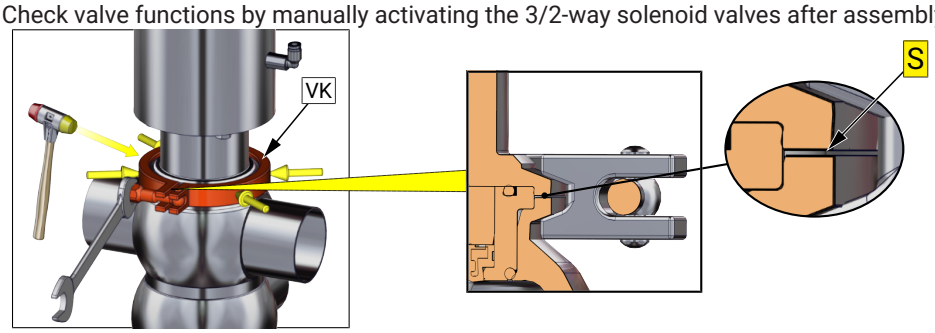
NOTICE

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' (≤ 0,4mm) between the components.
- Check valve functions by manually activating the 3/2-way solenoid valves after assembly!



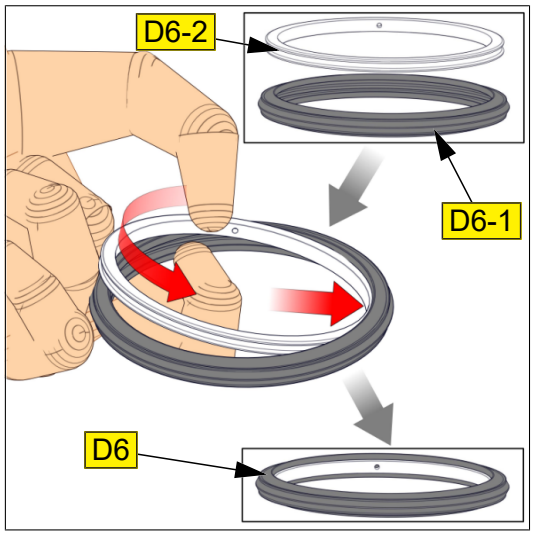
Torque: clamp coupling

DN	25	40	50	65	80	100
Inch	1	1½	2	2½	3	4
Torque [Nm]	15	15	15	25	25	55

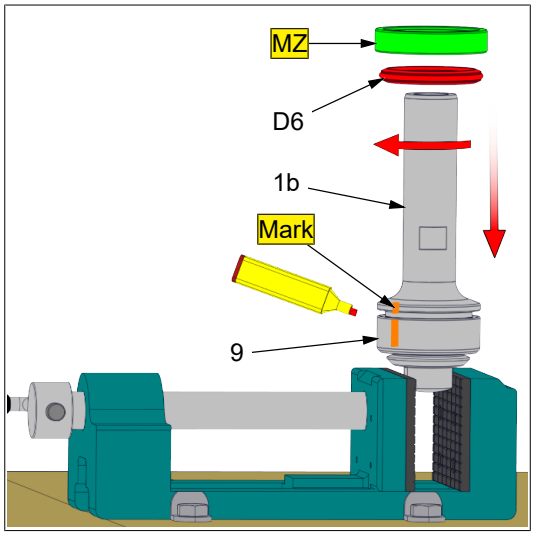
Mounting seal (D6)

Centring ring MZ 	DN 25/40/50	5620 050 025-020
	DN65	5620 065 025-020
	DN80	5620 080 025-020
	DN100	5620 100 025-020

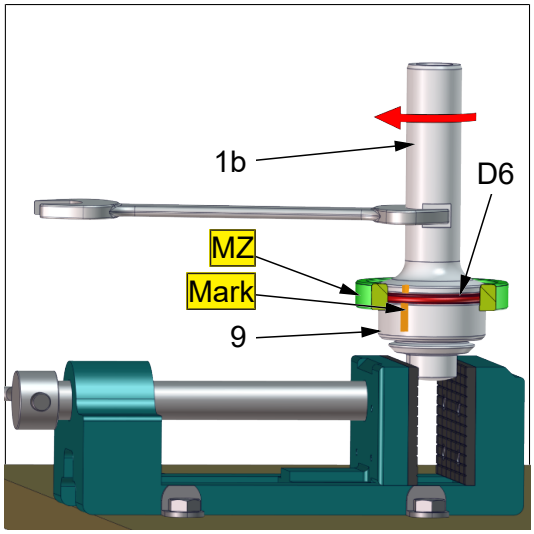
- Install the support ring (D4-2) in the seal jacket (D4-1).



- Clamp piston plate (9) in a vice. Screw together the piston (1b) and piston plate (9) to the metal limit stop by hand.
- Make a colored mark at the piston surfaces.
- After then, unscrew the piston (1b) again.



- Slide the seal (D6) onto the piston (1b).
- Screw together again the piston (1b) into the piston plate (9) by hand.
- Position the centre ring (MZ) on seal (D6).
- Screw up the piston (1b) to the final limit mark.



9 Drawings and dimensions

9.1 Drawings

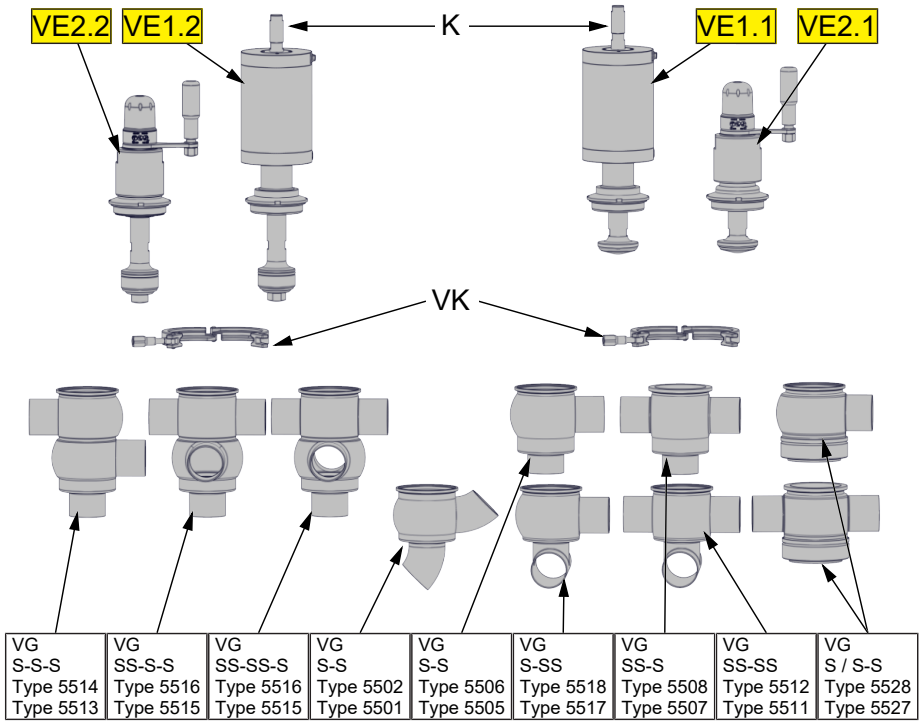
K = Cap

VE = Valve insert manual
- 1.1 = Angle valve
- 1.2 = Changeover valve

VE = Valve insert pneumatical
- 2.1 = Angle valve
- 2.2 = Changeover valve

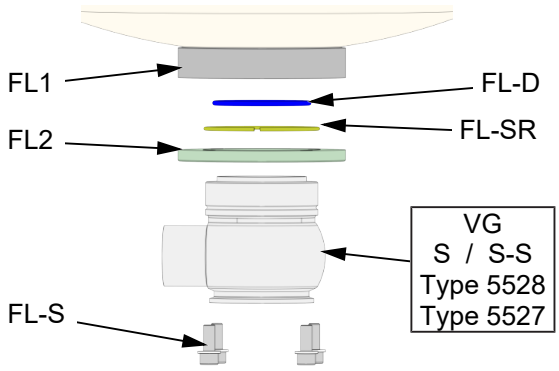
VK = Clamp coupling
VG = Valve housing

Angle valves, Two way valves



FL1 = Tank flange[1]
FL2 = Housing flange
FL-D = O-ring [1]
FL-S = Screw
FL-SR = Retaining ring

Tank outlet valve



Valve inserts (VE)

manual operation DN50

- Insert for angle valves Type: 5505
- Insert for changeover valves Type: 5513

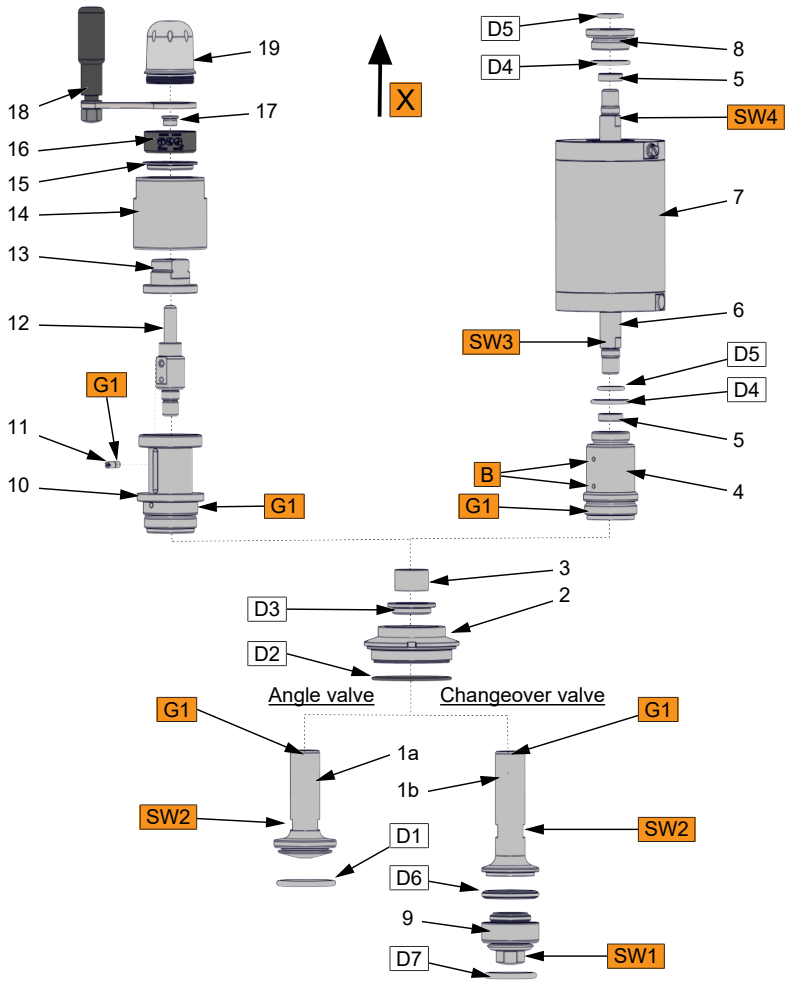
pneumatical DN50

- Insert for angle valves Type: 5506
- Insert for changeover valves Type: 5514

1 = Piston
- a = Angle valve
- b = Changeover valve

2 = Insert
3 = Bearing bush
4 = Lantern
5 = Bearing bush
6 = Spindle
7 = Actuator
8 = Insert - lantern
9 = Piston plate
10 = Housing
11 = Set screw
12 = Spindle
13 = Guide nut
14 = Housing body
15 = Plain bearing
16 = Adapter
17 = Cap
18 = Crank handle
19 = Hood

D1 = O-ring
D2 = O-ring
D3 = Shaft seal
D4 = O-rings
D5 = O-rings
D6 = Seal
D7 = O-ring

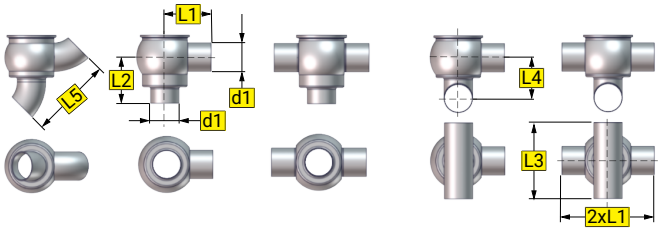


	Wrench size					Hinged hook wrench	Joint face wrench
Nominal width	**SW1**	**SW2**	**SW3**	**SW4**	**SW5**	**Form A (hook)** **Form B (pin)**	**D 40-80mm** **Pin Ø5 / Ø6**
DN 25 / 1“	19	24	17	17	11	Form A DN 25-100: 8028025100-020 Form A DN125: 8028025150-020 Form B (to 2015) Ø4: 8027000060-000 Form B (from 2015) Ø6: 8027000065-000	Ø4 (to 2015)8028340085-000 Ø6 (from 2015)8028340080-000
DN 40/ 1½“	24						
DN 50 / 2“	24						
DN 65 / 2½“	36						
DN 80 / 3“	27						
DN 100 / 4“	27						
DN 125 / 5“	27						

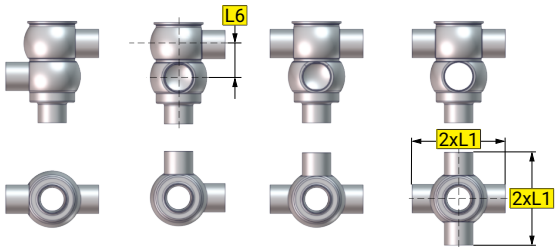
9.2 Dimensions

Housing

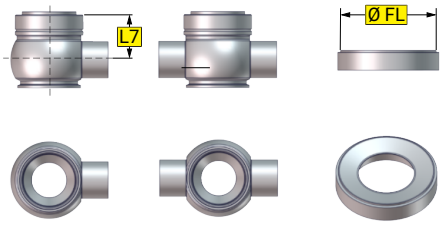
Y-type valve
Angle valve
T-valve
Loop valve
Cross valve



Changeover valve
LL
LL-90°
TL
TT

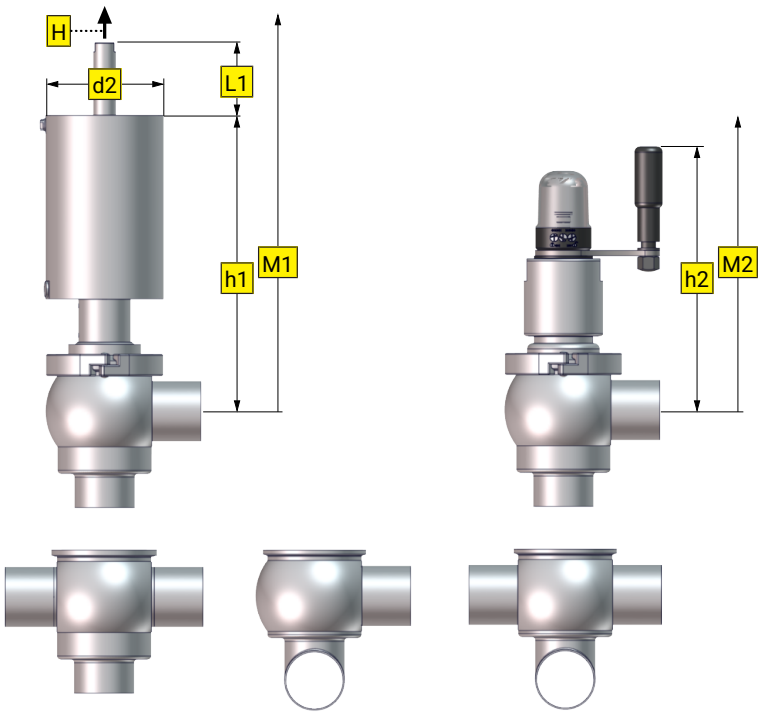


Tank outlet valve
L
T



Nominal size	d1	L1	L2	L3	L4	L5	L6	L7	ø Fl
DN 25	Ø 29 x 1,5	75	75	100	57	126	36	70,5	ø 100
DN 40	Ø 41 x 1,5	85	85	120	66	138	48	70,5	ø 125
DN 50	Ø 53 x 1,5	85	85	140	74,5	150	60	69,5	ø 138
DN 65	Ø 70 x 2,0	105	105	160	96	185	76	78,5	ø 165
DN 80	Ø 85 x 2,0	115	115	180	122	219	91	101,5	ø 176
DN 100	Ø 104 x 2,0	130	130	200	144	247	110	120	ø 209
DN 125	Ø 129 x 2,0	160	160	-	-	-	-	-	ø 238
1 Zoll	Ø25.4x1.65	75	75	100	57	126	32	70,5	ø 100
1½ Zoll	Ø31.8x1.65	85	85	120	66	138	45	70,5	ø 125
2 Zoll	Ø50,8 x 1,65	85	85	140	74,5	150	57,5	69,5	ø 138
2½ Zoll	Ø63,5 x 1,65	105	105	160	96	185	70	78,5	ø 165
3 Zoll	Ø76,1 x 2,0	115	115	180	122	219	83	101,5	ø 176
4 Zoll	Ø101,6 x 2,0	130	130	200	144	247	108	120	ø 209

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

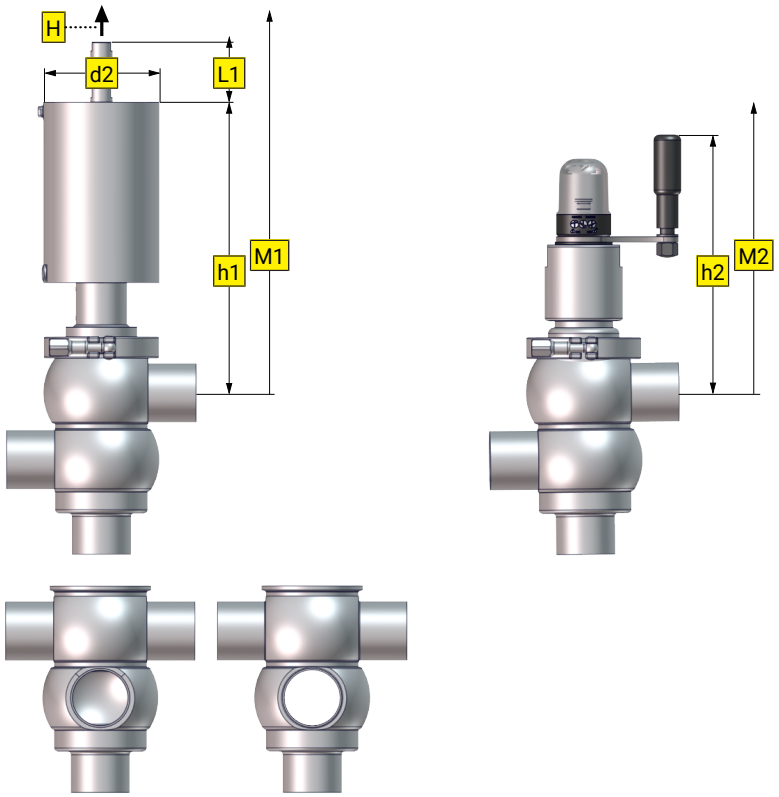


Nominal size	d2	h1	h2	M1 [1]	M2	L1		H (Stroke)	
				Installation dimensions		FC	FO	pneum.	Manual
DN 25	ø 104	249	221	~ 440	~ 260	82	93	18	14
1 Zoll		248	219	~ 440	~ 260	86	93	14	10
DN 40	ø 104	255	227	~ 460	~ 265	70	93	30	25
1½ Zoll		253,5	225	~ 460	~ 265	73,5	93	26,5	22,5
DN 50	ø 104	261	233	~ 480	~ 290	69	93	24	26
2 Zoll		260,5	232	~ 480	~ 290	61,5	93	21,5	23,5
DN 65	ø 129	269	241	~ 515	~ 325	69	93	24	26
2½ Zoll		266	238	~ 515	~ 320	75	93	18	20
DN 80	ø 167	276,5	248	~ 540	~ 340	64,5	93	28,5	30,5
3 Zoll		272,5	244	~ 540	~ 330	64,5	93	28,5	21,5
DN 100	ø 167	286	258	~ 565	~ 375	64,5	93	28,5	30,5
4 Zoll		285	257	~ 565	~ 370	67	93	26	28
DN 125	-	-	-	-	-	-	-	-	-
5 Zoll									

Valves, that do not meet the catalogue standards, can lead to dimensional deviations.

1. Installation dimension M1 are incl. control head or feedback unit.

Changeover valve

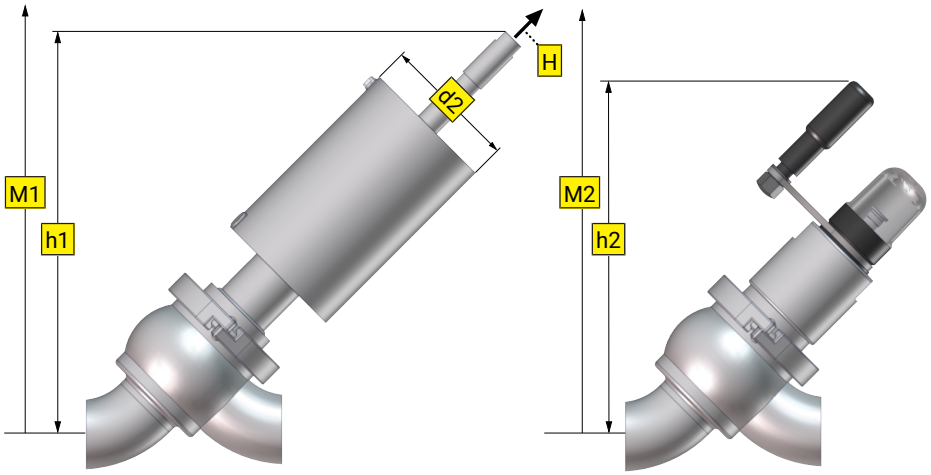


Nominal size	d2	h1	h2	M1 [1]	M2	L1		H (Stroke)	
				Installation dimensions		FC	FO	pneum.	Manual
DN 25	ø 104	249	221	485	300	82	93	23	-
1 Zoll		248	219			86	93	17	
DN 40	ø 104	255	227	520	320	70	93	28,5	30
1½ Zoll		253,5	225			73,5	93	25,5	-
DN 50	ø 104	261	233	550	350	69	93	34	34
2 Zoll		260,5	232			61,5	93	31,5	31,6
DN 65	ø 129	269	241	580	410	69	93	31	31,1
2½ Zoll		266	238			75	93	25,5	25,5
DN 80	ø 167	276,5	248	560	435	64,5	93	31	31
3 Zoll		272,5	244			64,5	93	25,5	23
DN 100	ø 167	286	258	670	490	64,5	93	34	28,5
4 Zoll		285	257			67	93	28,5	-
DN 125	-	-	-	-	-	-	-	-	-
5 Zoll									

Valves, that do not meet the catalogue standards, can lead to dimensional deviations.

1. Installation dimensions M1 are incl. control head or feedback unit

bend y-valve

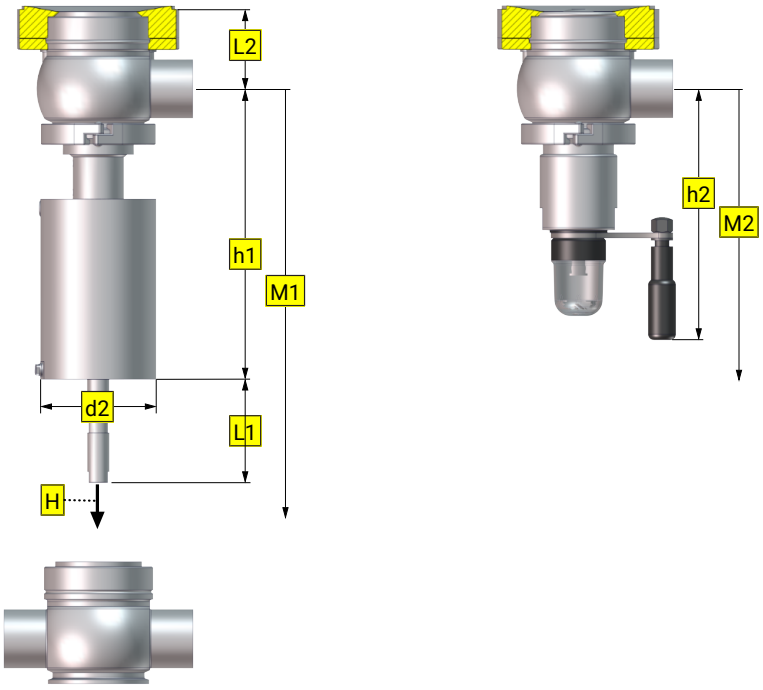


Nominal size	d2	h1		h2	M1 [1]	M2	H (stroke)	
		NC	NO		Size when completed		pneum.	Manual
DN 25	ø 104	277	291	260	~ 330	~ 290	18	14
1 Zoll		280	291	258	~ 330	~ 290	14	10
DN 40	ø 104	275	298	268	~ 370	~300	30	25
1½ Zoll		278	298	266	~ 370	~ 300	26,5	22,5
DN 50	ø 104	282	305	277	~ 390	~ 320	24	26
2 Zoll		275	305	276	~ 390	~ 320	21,5	23,5
DN 65	ø 129	298	321	295	~ 440	~ 355	24	26
2½ Zoll		304	321	292	~ 435	~ 350	18	20
DN 80	ø 167	311	338	315	~ 450	~ 380	28,5	30,5
3 Zoll		311	338	311	~ 440	~ 370	28,5	21,5
DN 100	ø 167	330	357	325	~ 500	~ 430	28,5	30,5
4 Zoll		332	357	324	~ 495	~ 425	26	28
DN 125	-	-	-	-	-	-	-	-
5 Zoll								

Valves, that do not meet the catalogue standards, can lead to dimensional deviations.

1. Installation dimension M1 are incl. control head or feedback unit.

Tank outlet valve

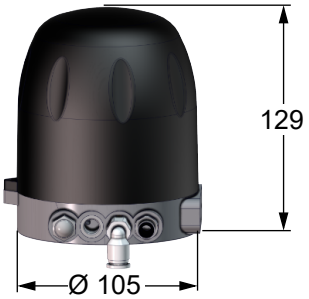
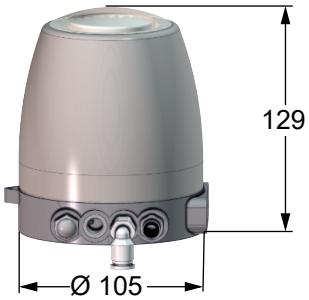


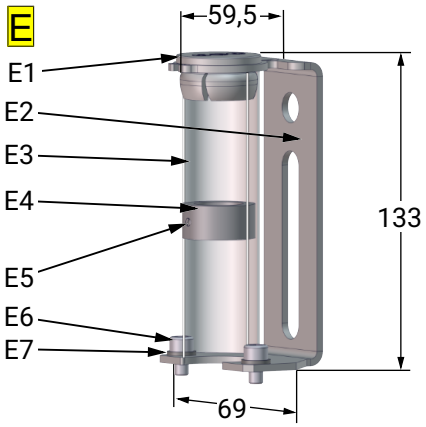
Nominal size	d2	h1	h2	M1 [1]	M2	L1		H (stroke)	
				Size when completed		NC	NO	pneum.	Manual
DN 25	ø 104	249	221	~ 490	~ 260	82	93	18	14
1 Zoll		248	219	~ 490	~ 260	86	93	14	10
DN 40	ø 104	255	227	~ 500	~ 265	70	93	30	25
1½ Zoll		253,5	225	~ 500	~ 265	73,5	93	26,5	22,5
DN 50	ø 104	261	233	~ 510	~ 290	69	93	24	26
2 Zoll		260,5	232	~ 510	~ 290	61,5	93	21,5	23,5
DN 65	ø 129	269	241	~ 550	~ 325	69	93	24	26
2½ Zoll		266	238	~ 550	~ 320	75	93	18	20
DN 80	ø 167	276,5	248	~ 580	~ 340	64,5	93	28,5	30,5
3 Zoll		272,5	244	~ 580	~ 330	64,5	93	28,5	21,5
DN 100	ø 167	286	258	~ 630	~ 375	64,5	93	28,5	30,5
4 Zoll		285	257	~ 630	~ 370	67	93	26	28
DN 125	-	-	-	-	-	-	-	-	-
5 Zoll									

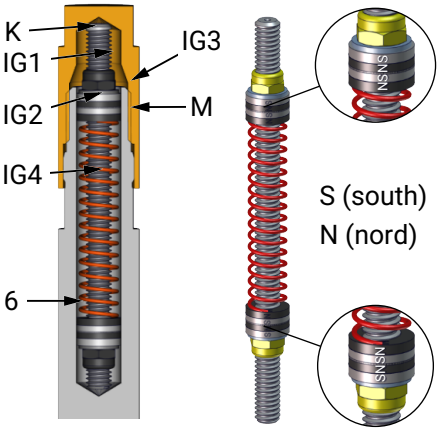
Valves, that do not meet the catalogue standards, can lead to dimensional deviations.

1. Installation dimension M1 are incl. control head or feedback unit

9.3 Control units

Control head KI-TOP	
with plastic hood - transparent	**with stainless steel hood**
	

Feedback unit with finger guard (E)	
• E1 = Cap • E2 = Angle bracket • E3 = Shell transparent • E4 = Set collar • E5 = Headless pin • E6 = Allen screw • E7 = FLat washer	

Pulse generator (IG)	
• IG1 = Rod • IG2 = Disc • IG3 =Nut • IG4 = Spring • K = Cap • M = Magnet • 6 = Spindle	

10 Wearing parts

10.1 Wearing parts list

DN 25 - DN 50 / 1 Inch - 2 Inch

Item	Material	Qty.	DN 25 1 Inch	DN 40 1½ Inch	DN 50 2Inch
3	XSM	1x	Bearing bush 8050 028 020-156		
5	XSM	1x	Bearing bush 8050 020 007-156		
13	NBR	1x	Scraper ring 2330 028 007-055		
D1			O-ring		O-ring
	EPDM	1x	2304 041 035-159		2304 044 053-159
	HNBR	1x	2304 041 035-157		2304 044 053-157
	FKM	1x	2304 041 035-178		2304 044 053-178
D2			O-ring		
	EPDM	1x	2304 069 026-159		
	HNBR	1x	2304 069 028-050		
	FKM	1x	2304 069 026-251		
D3	EPDM	1x	Seal 5506 050 009-254		
	HNBR	1x	Seal 5506 050 009-050		
	FKM	1x	Seal 5506 050 009-251		
D4	NBR	2x	O-ring 2304 030 035-055		
D5	HNBR	2x	O-ring 2304 019 035-171		
D6	EPDM		Sealing ring		
	- complete	1x	5621 055 025-084		
	- Jacket	1x	5621 055 026-084		
	- Support ring	1x	5621 055 027-020		
	HNBR		Sealing ring		
	- complete	1x	5621 055 025-171		
	- Jacket	1x	5621 055 026-171		
	- Support ring	1x	5621 055 027-020		
	FKM		Sealing ring		
	- complete	1x	5621 055 025-251		
	- Jacket	1x	5621 055 026-251		
	- Support ring	1x	5621 055 027-020		
D7			O-ring		
	EPDM	1x	2304 038 053-170		
	HNBR	1x	2304 038 053-171		
	FKM	1x	2304 038 053-178		
FL-D			O-ring	O-ring	O-ring
	EPDM	1x	2304 057 035-054	2304 063 053-170	2304 075 040-054
	HNBR/NBR	1x	2304 057 035-050	2304 063 053-050	2304 075 040-055

Seal (D6) = New version with support ring

DN 65 - DN 100 / 2½ Inch - 3 Inch

Item	Material	Qty.	DN 65 2½ Inch	DN 80 3 Inch	DN 100 4Inch
3	XSM	1x	Bearing bush 8050 028 020-156		
5	XSM	1x	Bearing bush 8050 020 007-156		
13	NBR	1x	Scraper ring 2330 028 007-055		
D1			O-ring	O-ring	O-ring
	EPDM	1x	2304 053 053-159	2304 069 053-159	2304 088 053-159
	HNBR	1x	2304 053 053-157	2304 069 053-157	2304 088 053-157
	FKM	1x	2304 053 053-178	2304 069 053-178	2304 088 053-178
D2			O-ring	O-ring	O-ring
	EPDM	1x	2304 082 026-159	2304 098 035-159	2304 117 035-159
	HNBR	1x	2304 082 026-050	2304 098 035-050	2304 117 035-050
	FKM	1x	2304 082 026-051	2304 098 035-051	2304 117 035-051
D3	EPDM	1x	Seal 5506 050 009-254		
	HNBR	1x	Seal 5506 050 009-050		
	FKM	1x	Seal 5506 050 009-251		
D4	NBR	2x	O-ring 2304 030 035-055		
D5	HNBR	2x	O-ring 2304 019 035-171		
D6	EPDM		Sealing ring	Sealing ring	
	- complete	1x	5621 065 025-084	5621 100 025-084	
	- Jacket	1x	5621 065 026-084	5621 100 026-084	
	- Support ring	1x	5621 065 027-020	5621 100 027-020	
	HNBR		Sealing ring	Sealing ring	
	- complete	1x	5621 065 025-171	5621 100 025-171	
	- Jacket	1x	5621 065 026-171	5621 100 026-171	
	- Support ring	1x	5621 065 027-020	5621 100 027-020	
	FKM		Sealing ring	Sealing ring	
	- complete	1x	5621 065 025-251	5621 100 025-251	
	- Jacket	1x	5621 065 026-251	5621 100 026-251	
	- Support ring	1x	5621 065 027-020	5621 100 027-020	
D7			O-ring	O-ring	O-ring
	EPDM	1x	2304 047 053-170	2304 069 053-159	2304 083 050-069
	HNBR	1x	2304 047 053-171	2304 069 053-157	2304 083 050-157
	FKM	1x	2304 047 053-178	2304 069 053-178	2304 083 050-178
FL-D			O-ring	O-ring	O-ring
	EPDM	1x	2304 090 040-170	2304 102 050-159	2304 133 053-159
	HNBR/NBR	1x	2304 090 040-050	2304 102 050-050	2304 133 053-050

Seal (D6) = New version with support ring

10.2 Wear parts kit

Angle valve Type: 5505, 5506, 5507, 5508, 5511, 5512

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

	DN 25 1 Inch	DN 40 1½ Inch	DN 50 2Inch
HNBR	5506 025 990-050	5506 040 990-050	5506 050 990-050
EPDM	5506 025 990-054	5506 040 990-054	5506 050 990-054
FKM	5506 025 990-251	5506 040 990-251	5506 050 990-251

	DN 65 2½ Inch	DN 80 3 Inch	DN 100 4Inch
HNBR	5506 065 990-050	5506 080 990-050	5506 100 990-050
EPDM	5506 065 990-054	5506 080 990-054	5506 100 990-054
FKM	5506 065 990-251	5506 080 990-251	5506 100 990-251

Two way valves Type: 5513, 5514, 5515, 5516

Seals (D2), (D3), (D6), (D7)

	DN 25 - DN 50 1 Inch - 2 Inch	DN 65 2½ Inch	DN 80 3 Inch
HNBR	5514 050 990-050	5514 065 990-050	5514 080 990-050
EPDM	5514 050 990-054	5514 065 990-054	5514 080 990-054
FKM	5514 050 990-251	5514 065 990-251	5514 080 990-251

	DN 100 4Inch	-	-
HNBR	5514 100 990-050		
EPDM	5514 100 990-054		
FKM	5514 100 990-251		

Seal (D6) without support ring

Tank outlet valve Typ: 5527, 5528

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

	DN 25 1 Inch	DN 40 1½ Inch	DN 50 2Inch
HNBR	5528 025 990-050	5528 040 990-050	5528 050 990-050
EPDM	5528 025 990-054	5528 040 990-054	5528 050 990-054
FKM	5528 025 990-251	5528 040 990-251	5528 050 990-251

	DN 65 2½ Inch	DN 80 3 Inch	DN 100 4Inch
HNBR	5528 065 990-050	5528 080 990-050	5528 100 990-050
EPDM	5528 065 990-054	5528 080 990-054	5528 100 990-054
FKM	5528 065 990-251	5528 080 990-251	5528 100 990-251

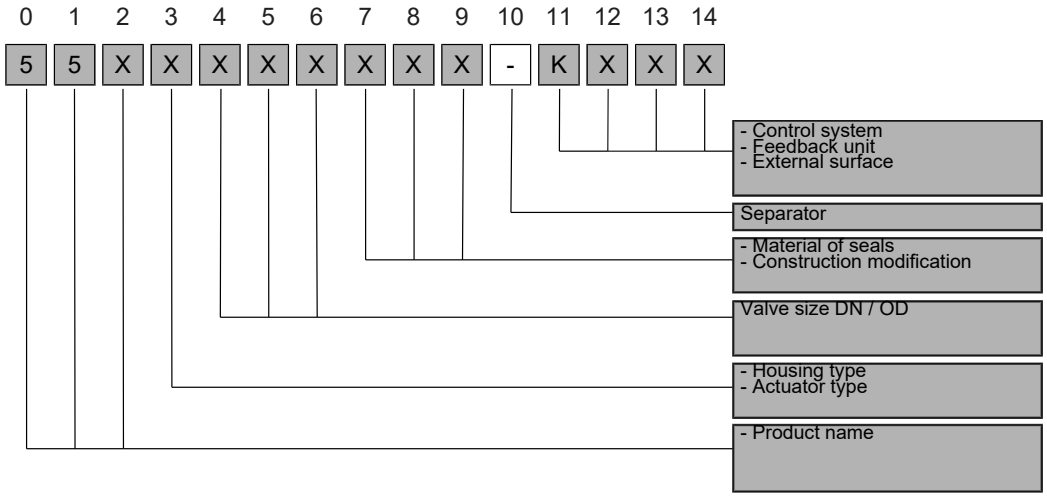
Tank flange FL1, O-ring FL-D

Item	Material	Qty.	DN 25 1 Inch	DN 40 1½ Inch	DN 50 2Inch
FL1	1.4404 AISI316L	1x	5727 025 001-040	5727 040 001-040	5727 050 001-040
FL-D			O-ring	O-ring	O-ring
	EPDM	1x	2304 057 035-054	2304 063 053-170	2304 075 040-054
	HNBR/NBR	1x	2304 057 035-050	2304 063 053-050	2304 075 040-055
	FKM	1x	2304 057 035-251	2304 063 053-251	2304 075 040-251

Item	Material	Qty.	DN 65 2½ Inch	DN 80 3 Inch	DN 100 4Inch
FL1	1.4404 AISI316L	1x	5727 065 001-040	5727 080 001-040	5727 100 001-040
FL-D			O-ring	O-ring	O-ring
	EPDM	1x	2304 090 040-170	2304 102 050-159	2304 133 053-159
	HNBR/NBR	1x	2304 090 040-050	2304 102 050-050	2304 133 053-050
	FKM	1x	2304 090 040-251	2304 102 050-251	2304 133 053-251

11 Classification

11.1 Structure of Order Number



Product name

55 xx xxx xxx-xxxx	Pos. 0	Pos. 1	Pos. 2
Single seat valve KI-DS	5	5	x

Housing type / Actuator type

xx XX xxx xxx-xxxx				
Type	**Housing type**	**Actuator type**	**Pos. 2**	**Pos. 3**
5501	S-S Inclined seat valve	manual	0	1
5502		pneumatic	0	2
5505	S-S Angle valve	manual	0	5
5506		pneumatic	0	6
5507	SS-S T-valve	manual	0	7
5508		pneumatic	0	8
5511	SS-SS Cross valve	manual	1	1
5512		pneumatic	1	2
5513	S-S-S Changeover valve	manual	1	3
5514		pneumatic	1	4
5515	SS-S-S Changeover valve	manual	1	5
5516		pneumatic	1	6
5517	S-SS Loop valve	manual	1	7
5518		pneumatic	1	8
5527	S Tank outlet valve	manual	2	7
	SS Tank outlet valve	manual	2	7
5528	S Tank outlet valve	pneumatic	2	8
	SS Tank outlet valve	pneumatic	2	8

Valve size

xxxx XXX xxx-xxxx								
Nominal size	**Pos. 4**	**Pos. 5**	**Pos. 6**		**Nominal size**	**Pos. 4**	**Pos. 5**	**Pos. 6**
DN 25	0	2	5		DN 80	0	8	0
DN 40	0	4	0		DN 100	1	0	0
DN 50	0	5	0		DN 125	1	2	5
DN 65	0	6	5		DN 150	1	5	0
OD 1"	0	2	6		OD 3 "	0	7	6
OD 1 1/2"	0	3	8		OD 4 "	1	0	1
OD 2 "	0	5	1		OD 5"	1	2	7
OD 2 1/2"	0	6	4		OD 6 "	1	5	2

Material of seal & Design modification

xxxx xxx X X X-xxxx						
Type	**Housing**	**Variations of actuation**	**Seal**	**Pos. 7**	**Pos. 8**	**Pos. 9**
5501, 5502	S-S	Normally closed (NC)	EPDM	0	3	0
5505, 5506	S-S		HNBR	0	3	5
5507, 5508	SS-S		FKM	0	3	4
5511, 5512	SS-SS	Normally open (NO)	EPDM	1	3	0
5513, 5514	S-SS		HNBR	1	3	5
5515, 5516	S-S-S		FKM	1	3	4
5517, 5518	SS-S-S	air open - air close (DA)	EPDM	3	3	0
5527; 5528	S		HNBR	3	3	5
			FKM	3	3	4
5527, 5528	SS	Normally closed (NC)	EPDM	2	3	0
			HNBR	2	3	5
			FKM	2	3	4

Separator

xxxx xxx xxx - xxxx	Pos. 10
- Standard	-

Control system, position indicator, surfaces

xxxx xxx xxx-XXXX	Pos.11	Pos.12	Pos.13	Pos.14
Valve without control system, External surface AISI304 E-polished	0	2	1	
Valve without control system, External surface AISI316L E-polished	0	4	1	
Valve with feedback (5630 005 025-000)	7	5	0	
Valve with control head, KI-Top SPS for double seat valves	K	5	X	X
Valve with control head, KI-Top ASi-Bus for double seat valves	K	6	X	X

12 Appendix

12.1 Declaration of incorporation

Declaration of Incorporation

according to Directive 2006/42/EC of the European Parliament and the Council of 17 May 2006

Manufacturer:
KIESELMANN GmbH
Paul-Kieselmann-Str. 4-10
D-75438 Knittlingen

We declare that the following pressure equipment

Designation	Function
Pneumatic Linear actuator	pneumatically operation of valves
Pneumatic Quarter-turn actuator	pneumatically operation of valves
Butterfly Valve (pneumatically operated)	Separation of medium flow
Ball Valve (pneumatically operated)	Separation of medium flow
Single seat Valve (pneumatically operated)	Separation of medium flow
Changeover Valve (pneumatically operated)	Separation of medium flow
Double-Seat mixproof Valve (pneumatically operated)	Separation of medium flow
Control Valve (pneumatically operated)	Regulation of medium flow
Throttling Valve (pneumatically operated)	Regulation of medium flow
Tank Outlet Valve (pneumatically operated)	Separation of medium flow
Sampling Valve (pneumatically operated)	Separation of medium flow

complies with the definition of an „incomplete machine“ according to Article 2 of the European Machinery Directive 2006/42/EG, when fitted in or merged with other machines or incomplete machines which also comply with the provision of the Directive.

Applied harmonized standards:

Directive 2014/68/EU
EN ISO 12100

Person responsible for documentation:

Achim Kauselmann
Documentation / Development
KIESELMANN GmbH

Knittlingen, 10.10.2020

i.V. Uwe Heisswolf
Head of Development

KIESELMANN
FLUID PROCESS GROUP

Notes

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