KIESELMANN
FLUID PROCESS GROUP

Operating instructions

- Translation of the original -

Single seat valve

Inclined seat valve Type: 5702

pneumatic operation

10.4.14

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

☎ +49 (0) 7043 371-0 ◆ Fax: +49 (0) 7043 371-125
www.kieselmann.de ◆ sales@kieselmann.de

1. List of contents

2. General safety instructions

2.1 Information 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.

2.2 Marking of security instructions in the operating manual

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 may cause severe personal injury or death.
	**ATTENTION**	Dangerous situation which may cause slight personal injury or material damages.
	**NOTE**	Marks application hints and other information which is particularly useful.

2.3 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.

2.4 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.

2.5 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.

2.6 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 following:

- 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.

3. Safety instructions

3.1 Field of application

Angle valves are utilised as a pneumatically controlled shut-off valve in food and beverage as well as in pharmaceutical, biotechnological and chemical industries.

ATTENTION

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

3.2 General safety instructions

DANGER

- Danger of crushing or amputating limbs.
  Do not reach into the valve housing when in pneumatic mode.
- Dismantling the valve or valve assemblies from the plant can cause injuries from fluids or gases flowing out.
  Dismantle the valve or valve assembly only when the plant has been rendered pressure-less and free of liquid and gas.
- The spring preloaded valve insert (air open - spring close) may incur serious injuries by jumping out of the housing.
  Pneumatically open the valve before disassembling the clamp coupling, so that upstroke the piston in direction “X“ (Fig. 3 /Page 9).

ATTENTION

- To avoid air leaking, only use pneumatic connection parts that have an o-ring seal facing the even surface.
- When mounting the clamps, the max. torque must not be exceeded (see technical data).
- Steps should be taken to ensure that no external forces are exerted on the fitting.

3.3 General notes

NOTE

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

4. Function

4.1 Functional description

The valve opens and closes by means of a pneumatical actuator. The sealing function in the closed position is performed statically.

- air open - spring close (lö-fs)
  - ▶ pneum. operated ⇨ opens the valve
  - ▶ not pneum. operated ⇨ spring tension closes the valve
- air close - spring open (fö-ls)
  - ▶ pneum. operated ⇨ closes the valve
  - ▶ not pneum. operated ⇨ spring tension opens the valve
- air open - air close (fö-ls)
  - ▶ pneum. operated ⇨ opens the valve
  - ▶ pneum. operated ⇨ closes the valve

5. Installation informations

5.1 Installation instructions

Preferably install the valve vertically. Install the connection lines in such a way as to permit the liquids to drain freely out of the housing.

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

Valves with welded ends that serve as connecting members can be directly welded to the piping.

5.2 Welding guidlines

Sealing elements integrated in weld components must generally be removed prior to welding.

To prevent damage, welding should be undertaken by certified personnel (EN287). Use the TIG (Tungsten Inert Gas) welding process.

NOTE
Impurities can cause damage to the seals and seals area. Clean inside areas prior to assembly.

6. Maintenance

6.1 Maintenance

The maintenance intervals depend on the operating conditions "temperature, temperature-intervals, medium, cleaning medium, pressure and opening frequency". It is recommended to change the seals annually. The maintenance intervals, however, depend on the condition of the seals and are to be fixed by the user.

➢ **Actuator**

The actutator is maintenance-free and non-removable.

NOTE

		Lubricants
EPDM; Viton; k-flex	→	*Klüber Paraliq GTE*
NBR; HNBR; Silicone	→	*Klüber Paraliq GB 363*
Thread	→	*Teflon grease Interflon*

**) 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.*

6.2 Cleaning

Cleaning of the upper and lower valve chabers is performed with the pipe cleaning system.

7. Control system - and interrrogation system

7.1 Control head - optional-

Optionally, modular valve control systems can be installed to the actuator for reading and actuating valve positions. The standard version is a closed system with twofold limit position messaging (standard), with SPS, Interbus or ASI bus switch-on electronics, and integrated 3/2-way solenoid valves. For tough operating conditions we recommend employing a stainless steel hood.

7.2 Proximity switch mounting set -optional-

For the acquisition of the valve positions over inductive initiators, a limit switch support is mounted on the actuation. The enquiry takes place over the position of the piston rod.

8. Technical data

Model:	Angel valve pneumatic operation
Valve size:	DN: 25 - 100 DN: 1inch - 4inch
Connections:	Welding end
Temperature range:	• Ambient temperature: +4° to -+45°C • Product temperature: +0° to -+95°C medium dependent • Sterilization temperature: - EPDM +140°C short-time (30 min.) - HNBR +130°C short-time (30 min.)
Vaccum:	1,5 - 10^{-6} mbar x $^{l}/_{s}$ (test pressure 0,5mbar)
Control air pressure:	6,0 - 8,0 bar
Quality of control air:	ISO 8573-1 : 2001 quality class 3

Material:	**in product contact**	**not in product contact**
Stainless steel type:	1.4404 / AISI316L	1.4301 / AISI304 1.4305 / AISI303
Surfaces:	RA ≦0,8µm e-pol.	metallic bright, e-pol.
Seals:	EPDM (FDA)	HNBR

Operation pressures (bar):
(6bar control air pressure)

	Nominal diameter DN					
DIN INCH	25 1	40 1½	50 2	65 2½	80 3	100 4
bar	12	12	10	6,5	10	7

Tightening moment:
(Torque in Nm)
Retaining clamp:

	Nominal diameter DN					
DIN INCH	25 1	40 1½	50 2	65 2½	80 3	100 4
Nm	15	15	15	25	20	55

Fluiddynamic measurement :
(accroding to DIN EN 60534-2-3)

U-A

	Nominal diameter DN					
DIN INCH	25 1	40 1½	50 2	65 2½	80 3	100 4
m³/h	20	40	80	130	190	260

9. Pneumatic valve actuation

9.1 Actuator: air open - spring close

Valve function	pneumatic control with MV in control unit (Fig. 1 /Page 6)	pneumatic control with external solenoid valve (MV) (Fig. 1 /Page 6)
Valve “OPEN“	control air feed P ➟ MV1 ➟ P1/LA2 Valve is opening by control air	control air feed ext. MV ➟ LA2 Valve is opening by control air
Valve “CLOSED“	de-aeration LA2/P1 ➟ MV1 ➟ R Valve is closing by spring	de-aeration LA ➟ ext. MV Valve is closing by spring

9.2 Actuator: air close - spring open

Valve function	pneumatic control with MV in control unit (Fig. 1 /Page 6)	pneumatic control with external solenoid valve (MV) (Fig. 1 /Page 6)
Valve “CLOSED“	control air feed P ➟ MV1 ➟ P1/LA1 Valve is closing by control air	control air feed ext. MV ➟ LA1 Valve is closing by control air
Valve “OPEN“	de-aeration P1/LA1 ➟ MV1 ➟ R Valve is opening by spring	de-aeration LA1 ➟ ext. MV Valve is opening by spring

9.3 Actuator: air open - air close

Valve function	pneumatic control with MV in control unit (Fig. 1 /Page 6)	pneumatic control with external solenoid valve (MV) (Fig. 1 /Page 6)
Valve “OPEN“	control air feed P ➟ MV1 ➟ P1/LA1 Valve is opening by control air	control air feed ext. MV ➟ LA1 Valve is opening by control air
Valve “CLOSED“	de-aeration P ➟ MV3 ➟ P3/LA2 Valve is closing by control air	de-aeration ext. MV ➟ LA2 Valve is closing by control air

Control unit with solenoid valve

MV = Solenoid valve

R = De-aeration, Sound absorber

P = Compressed-air inlet (control unit)

E = De-aeration

LA = Compressed air inlet (actuation)

S = Slide switch - manual control (solenoid valves)

Control head with Initiatoren

I = Initiatoren

H = Angle bracket

E = De-aeration

LA = Compressed air inlet (actuation)

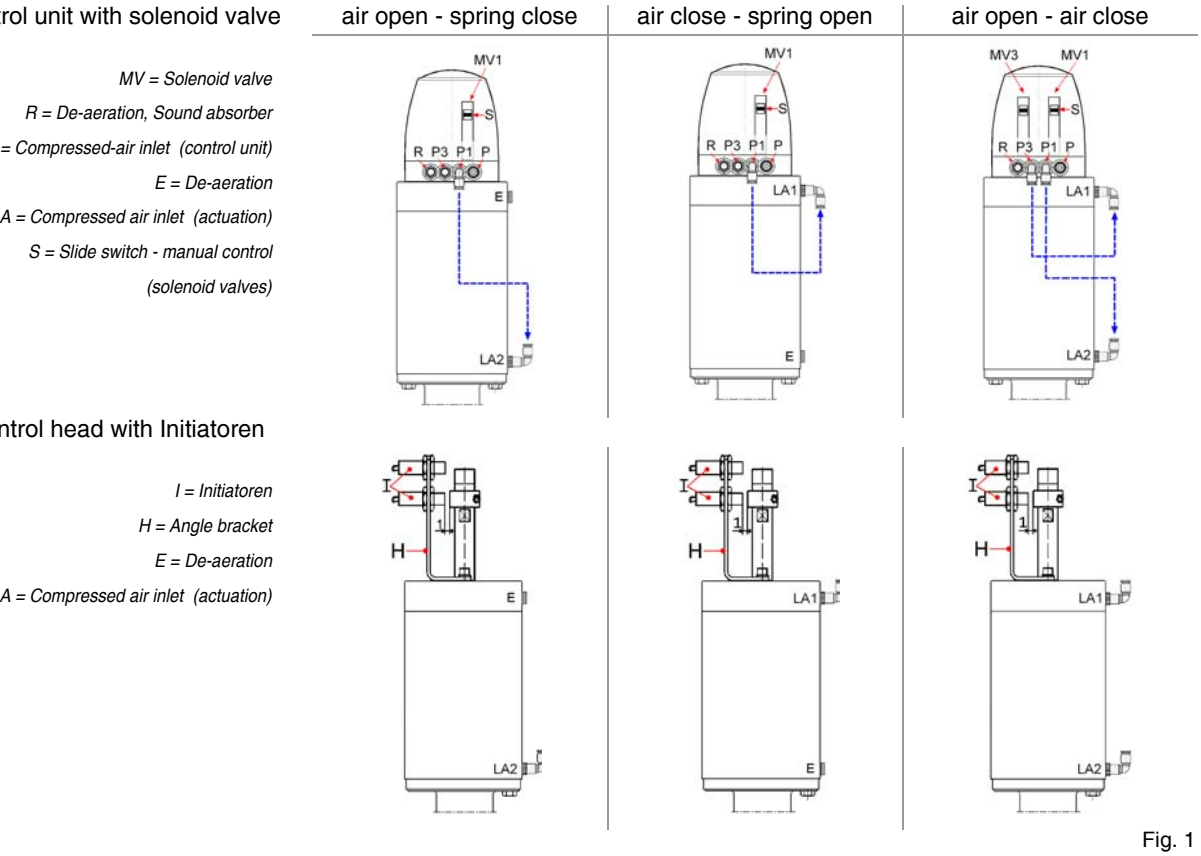

Fig. 1

10. Disassembly and assembly

➢Lubricants
- *EPDM; Viton; k-flex Klüber Paraliq GTE 703*
- *NBR; HNBR; Silicone Klüber Paraliq GB 363*
- *Thread Teflongrease Interflon*

10.1 Removing the pneum. valve insert (air open/spring close)

- Pneumatically open the valve, so that upstroke the piston (1) in direction X (Fig. 3 /Page 9).
- Remove the retaining clamp (VK).
- In an upward direction, dismount the complete valve insert from the valve.

10.2 Removing the pneum. valve insert (air close/spring open) (air open/air close)

- Remove the retaining clamp (VK).
- In an upward direction, dismount the complete valve insert from the valve.

10.3 Disassembly

NOTE
All threaded joint have right-hand thread.
Unscrew and remove control air, steam i.e. cleaning lines and electrical lines, complete proximity switch mounting or control head.

➤ Exchanging „A“ Item (D1), (D2), (D3).

- Loosen screw (6) and move the lantern (5) until the spanner flat (SW1) and the bore hole (B) is visible.
- Unscrew piston (1) from piston rod (7) (SW1/B).
- Slide off insert (2), bearing bush (3), O-ring (D2) and seal (D3) from the piston (1) in opposite direction “X“.
- Replace seals and wearing parts.

NOTE
Puncture the o-ring (D1) at the centre with a pointed tool and remove them carefully from the groove.

➤ Exchanging „B“ Item (D4).

- See - Dismantling exchanging seals „A“.
- Remove screw (6) and dismount the lantern (5).
- Screw off the thread connection Pos. (G1) of the piston rods (7) and the spindle (10) at the spanner surfaces (SW1 und SW2).
- Remove axially the piston rod (7) and spindle (10) from the lift drive.
- Replace the o-ring (D4) (2x).

10.4 Assembly

- Thoroughly clean and slightly lubricate mounting areas and running surfaces.
- Assemble in reverse order.

NOTE
Alternately press and roll the seal (D1) into the groove with round body.

- Thread connection (G1) assembly with ***removeable screw retention (e.g. Loctite 243)*** .
- Assemble in reverse order.
- Check the valve function.

11. Dimensions

11.1 Size measurement table

DN	d1	d2	L1	L2
25 **1 INCH**	26 22,1	29 25,4	126	319
40 **1½ INCH**	38 34,8	41 38,1	138	324
50 **2 INCH**	50 47,5	53 50,8	150	338
65 **2½ INCH**	66 60,2	70 63,5	185	356
80 **3 INCH**	81 72,8	85 76,1	219	432
100 **4 INCH**	100 97,4	104 101,6	247	477

11.2 Dimensioned drawing

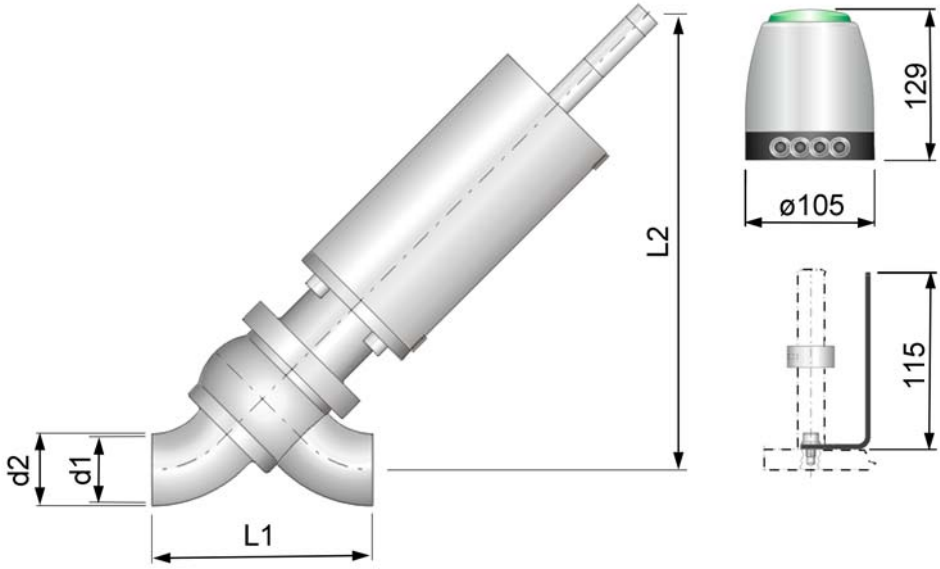

Fig. 2

12. Drawings

A1 = Control head

A2 = Sensor mounting

LA1 = air open-spring close - De-aeration
= air close-spring open - Valve stroke
= air open-air close - Valve stroke

LA2 = air open-spring close - Valve stroke
= air close-spring open - De-aeration
= air open-air close - Valve stroke

VE = Valve insert

VG = Valve housing

VK = Retaining clamp

P = Compressed air inlet

P1 = Compressed air outlet - valve stroke

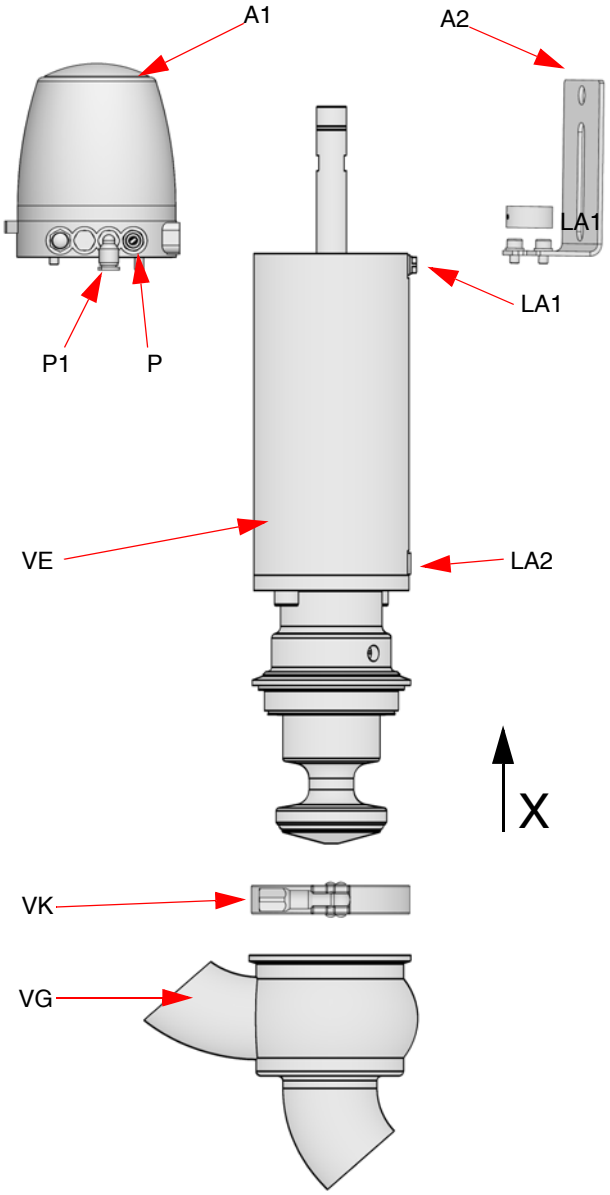

Fig. 3

12.1 Valve insert (VE)

1 = Piston
2 = Insert
3 = Bearing bush
4 = Washer screw retention
5 = Lantern
6 = Screw
7 = Piston rod
8 = Actuator
9 = Shaft
10 = Spindle
11 = O-Ring
12 = Cap
13 = Position indication

D1 = O-Ring
D2 = O-Ring
D3 = Seal
D4 = O-Rings

B = Bore hole
G1 = Thread connection secured with Lock nut removeable (e.g. Loctite 243)
G2 = Thread connection secured with Lock nut high-strength (e.g. Loctite 2701)

LA1 = air open-spring close - De-aeration
= air close-spring open - Valve stroke
= air open-air close - Valve stroke
LA2 = air open-spring close - Valve stroke
= air close-spring open - De-aeration
= air open-air close - Valve stroke
SW = Wrench size 17mm

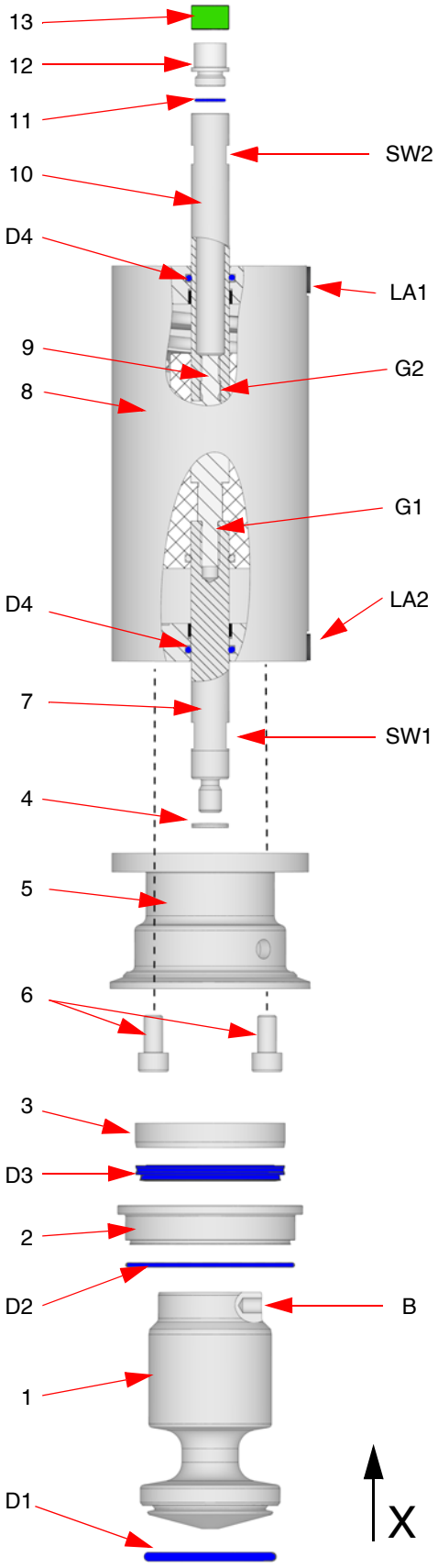

Fig. 4

13. Manufacturing

13.1 Structure of Article number

5702 050 030 - 041

- 041 — Material in product contact / Exterior finish / Interrogation system
- 030 — Material seals in product contact / Construction modifications
- 050 — Valve size
- 5702 — Housing type
- 5702 — Product type

➤ Product type

57xx = Single seat valve

➤ Housing type

Inclined seat valve

S-S

➤ Valve size

DN = Nominal diameter

DIN	**025** = DN25	**040** = DN40	**050** = DN50	**065** = DN65	**080** = DN80	**100** = DN100	**125** = DN125	**150** = DN150
INCH	**026** = DN1	**038** = DN1½	**051** = DN2	**064** = DN2½	**076** = DN3	**101** = DN4	-	-

➤ Material seal / Construction modifications

Material seals in product contact:			- EPDM	- HNBR
Modifications:	Type of actuation:	- air open - spring close	57xx DN 030-xxx	57xx DN 035-xxx
		- spring open - air close	57xx DN 130-xxx	57xx DN 135-xxx
		- air open - air close	57xx DN 330-xxx	57xx DN 335-xxx

➤ Material in product contact / Exterior finish

020 -	1.4301 / AISI304	- bright turned	**040** -	1.4404 / AISI316L	- bright turned
021 -	1.4301 / AISI304	- E-polished	**041** -	1.4404 / AISI316L	- E-polished
022 -	1.4301 / AISI304	- unpolished, glass-bead blasted	**042** -	1.4404 / AISI316L	- unpolished, glass-bead blasted

➤ Interrogation system

Article number	Control System or Interrogation System (A1, A2)
57xx DN xxx **-041**	Valve without control- or interrogation system
57xx DN xxx **-750**	Valve with Sensor mounting set (5630 005 000-020)
57xx DN xxx **-6xx**	Control head ASi-Bus
57xx DN xxx **-K6xx**	Control head KI-Top ASi-Bus
57xx DN xxx **-5xx**	Control head SPS
57xx DN xxx **-K5xx**	Control head KI-Top SPS

DN - Nominal diameter e.g. 57xx 050 030-041

14. Spare parts list

14.1 Inclined seat valve Type: 5702 (1.4404 / AISI316L)

Housing	Seal	Actuator	Valve	Seal kit
S-S	*EPDM*	*lö - fs*	*5702 DN 030-xxx*	*5706 DN 990-054*
		fö - ls	*5702 DN 130-xxx*	*5706 DN 990-054*
		lö - ls	*5702 DN 330-xxx*	*5706 DN 990-054*
S-S	*HNBR*	*lö - fs*	*5702 DN 035-xxx*	*5706 DN 990-050*
		fö - ls	*5702 DN 135-xxx*	*5706 DN 990-050*
		lö - ls	*5702 DN 335-xxx*	*5706 DN 990-050*

DN = Nominal diameter e.g. 5702 050 130-041 = DN50 , 5702 051 130-041 = 2INCH
xxx = Interrogation system
lö = air open
ls = air close
fö = spring open
fs = spring close

Item	Designation	Material	DN25 1 INCH	DN40 1½ INCH	DN50 2 INCH	DN65 2½ INCH	DN80 3 INCH	DN100 4 INCH
VE	*Valve insert lö - fs - DIN* *-INCH* *Valve insert fö - ls - DIN* *-INCH* *Valve insert lö - ls - DIN* *-INCH*	*EPDM*	*5706 025 020-041* *5706 026 020-041* *5706 025 023-041* *5706 026 023-041* *5706 025 026-041* *5706 026 026-041*	*5706 040 020-041* *5706 038 020-041* *5706 040 023-041* *5706 038 023-041* *5706 040 026-041* *5706 038 026-041*	*5706 050 020-041* *5706 051 020-041* *5706 050 023-041* *5706 051 023-041* *5706 050 026-041* *5706 051 026-041*	*5706 065 020-041* *5706 064 020-041* *5706 065 023-041* *5706 064 023-041* *5706 065 026-041* *5706 064 026-041*	*5706 080 020-041* *5706 076 020-041* *5706 080 023-041* *5706 076 023-041* *5706 080 026-041* *5706 076 026-041*	*5706 100 020-041* *5706 101 020-041* *5706 100 023-041* *5706 101 023-041* *5706 100 026-041* *5706 101 026-041*
VE	*Valve insert lö - fs - DIN* *-INCH* *Valve insert fö - ls - DIN* *-INCH* *Valve insert lö - ls - DIN* *-INCH*	*HNBR*	*5706 025 021-041* *5706 026 021-041* *5706 025 024-041* *5706 026 024-041* *5706 025 027-041* *5706 026 027-041*	*5706 040 021-041* *5706 038 021-041* *5706 040 024-041* *5706 038 024-041* *5706 040 027-041* *5706 038 027-041*	*5706 050 021-041* *5706 051 021-041* *5706 050 024-041* *5706 051 024-041* *5706 050 027-041* *5706 051 027-041*	*5706 065 021-041* *5706 064 021-041* *5706 065 024-041* *5706 064 024-041* *5706 065 027-041* *5706 064 027-041*	*5706 080 021-041* *5706 076 021-041* *5706 080 024-041* *5706 076 024-041* *5706 080 027-041* *5706 076 027-041*	*5706 100 021-041* *5706 101 021-041* *5706 100 024-041* *5706 101 024-041* *5706 100 027-041* *5706 101 027-041*
IP	*Pulse generator* [a]	-	5702 040 005-000	5702 065 005-000	5702 065 005-000	5702 065 005-000	5702 100 005-000	5702 100 005-000
VG	*Housing S-S -DIN* *-Zoll*	*AISI316L*	5701 025 031-041 5701 026 031-041	5701 040 031-041 5701 038 031-041	5701 050 031-041 5701 051 031-041	5701 065 031-041 5701 064 031-041	5701 080 031-041 5701 076 031-041	5701 100 031-041 5701 101 031-041
VK	*Retaining clamp*	*AISI304*	*2122 065 100-020*	*2122 065 100-020*	*2122 065 100-020*	*2122 080 100-020*	*2122 115 100-020*	*2122125100-020*

a) only required by use of a KIESELMANN control head

14.2 Valve insert VE

Item	Designation	Material	DN25 1 INCH	DN40 1½ INCH	DN50 2 INCH	DN65 2½ INCH	DN80 3 INCH	DN100 4 INCH
1	*Piston -DIN* *-INCH*	*AISI316L*	*5706 025 002-040* *5706 026 002-040*	*5706 040 002-040* *5706 038 002-040*	*5706 050 002-040* *5706 051 002-040*	*5706 065 002-040* *5706 064 002-040*	*5706 080 002-040* *5706 076 002-040*	*5706 100 002-040* *5706 101 002-040*
2	*Insert*	*AISI316L*	*5622 050 005-040*	*5622 050 005-040*	*5622 050 005-040*	*5622 065 005-040*	*5622 080 005-040*	*5713 100 003-040*
3	*Bearing bush*	*AISI316L*	*5622 050 006-053*	*5622 050 006-053*	*5622 050 006-053*	*5622 065 006-053*	*5622 080 006-053*	*5622100006-053*
4	*Washer screw retention*	*AISI304*	*8135 012 195-040*	*8135 012 195-040*	*8135 012 195-040*	*8135 012 195-040*	*8135 012 195-040*	*8135012195-040*
5	*Lantern*	*AISI304*	*5706 050 010-021*	*5706 050 010-021*	*5706 050 010-021*	*5706 065 008-021*	*5706 080 008-021*	*5706100008-021*
6	*Screw*	*AISI316L*	*8095 010 020-020* *M10x20 (2x)*	*8095 010 020-020* *M10x20 (2x)*	*8095 010 020-020* *M10x20 (2x)*	*8095 010 020-020* *M10x20 (2x)*	*8106 008 016-020* *M8x16 (4x)*	*8106 008 016-020* *M8x16 (4x)*
7	*Piston rod*	*AISI304*	*5200 104 052-020*	*5200 104 052-020*	*5200 104 052-020*	*5200 104 052-020*	*5200 157 057-020*	*5200 157 057-020*
8	*Actuator lö - fs* *Actuator fö - ls* *Actuator lö - ls*	*AISI304* *AISI304* *AISI304*	*5200 104 051-032* *5400 104 051-032* *5300 104 050-032*	*5200 104 051-032* *5400 104 051-032* *5300 104 050-032*	*5200 104 051-032* *5400 104 051-032* *5300 104 050-032*	*5200 104 051-032* *5400 104 051-032* *5300 104 050-032*	*5200 157 051-032* *5400 157 051-032* *5300 157 051-032*	*5200 157 051-032* *5400 157 051-032* *5300 157 051-032*
9	*Shaft*	*AISI304*	*5200 104 053-020*	*5200 104 053-020*	*5200 104 053-020*	*5200 104 053-020*	*5200 157 056-020*	*5200 157 056-020*
10	*Spindle upper*	*AISI303*	*5622 100 070-220*	*5622 100 070-220*	*5622 100 070-220*	*5622 100 070-220*	*5622 100 070-220*	*5622 100 070-220*
11	*O-Ring*	*EPDM*	*2304 012 020-055*	*2304 012 020-055*	*2304 012 020-055*	*2304 012 020-055*	*2304 012 020-055*	*2304 012 020-055*
12	*Cap*	*AISI303*	*5622 100 071-220*	*5622 100 071-220*	*5622 100 071-220*	*5622 100 071-220*	*5622 100 071-220*	*5622 100 071-220*
13	*Position indication*	*ABS gn*	*5622 100 058-152*	*5622 100 058-152*	*5622 100 058-152*	*5622 100 058-152*	*5622 100 058-152*	*5622 100 058-152*

14.3 Seal kit EPDM

Item	Designation	Material	DN25 1 INCH	DN40 1½ INCH	DN50 2 INCH	DN65 2½ INCH	DN80 3 INCH	DN100 4 INCH
	Seal kit	*EPDM*	*5706 025 990-054*	*5706 040 990-054*	*5706 050 990-054*	*5706 065 990-054*	*5706 080 990-054*	*5706 100 990-054*
D1	*O-Ring*	*EPDM*	*2304 041 035-159*	*2304 041 035-159*	*2304 044 053-159*	*2304 053 053-159*	*2304 069 053-159*	*2304 088 053-159*
D2	*O-Ring*	*EPDM*	*2304 069 026-159*	*2304 069 026-159*	*2304 069 026-159*	*2304 082 026-159*	*2304 098 035-159*	*2304 117 035-159*
D3	*Seal*	*EPDM*	*5622 050 010-069*	*5622 050 010-069*	*5622 050 010-069*	*5622 065 010-069*	*5622 080 010-069*	*5622 100 010-069*
D4	*O-Rings (2x)*[a]	*HNBR*	*2304 019 035-171*	*2304 019 035-171*	*2304 019 035-171*	*2304 019 035-171*	*2304 019 035-171*	*2304 019 035-171*

a) not included in the kit

14.4 Seal kit HNBR

Item	Designation	Material	DN25 1 INCH	DN40 1½ INCH	DN50 2 INCH	DN65 2½ INCH	DN80 3 INCH	DN100 4 INCH
	Seal kit	*HNBR*	*5714 025 990-050*	*5714 040 990-050*	*5714 050 990-050*	*5714 065 990-050*	*5714 080 990-050*	*5714 100 990-050*
D1	*O-Ring*	*HNBR*	*2304 041 035-157*	*2304 041 035-157*	*2304 044 053-157*	*2304 053 053-157*	*2304 069 053-157*	*2304 088 053-157*
D2	*O-Ring*	*HNBR*	*2304 069 028-050*	*2304 069 028-050*	*2304 069 028-050*	*2304 082 026-050*	*2304 098 035-050*	*2304 117 035-050*
D3	*Seal*	*HNBR*	*5622 050 010-050*	*5622 050 010-050*	*5622 050 010-050*	*5622 065 010-050*	*5622 080 010-050*	*5622 100 010-050*
D4	*O-Rings (2x)*[a]	*HNBR*	*2304 019 035-171*	*2304 019 035-171*	*2304 019 035-171*	*2304 019 035-171*	*2304 019 035-171*	*2304 019 035-171*

a) not included in the kit

KIESELMANN
FLUID PROCESS GROUP

Declaration of incorporation

Translation of the original

Manufacturer / authorised representative:

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

Authorised representative,
for compiling technical documents:

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

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

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 may 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:

- DIN EN ISO 12100 Safety of machinery

Knittlingen, 10. 04. 2014

Klaus Dohle
General Director