

# APV DELTA SDMS4 DN 25-100, 1"-4"

DOUBLE SEAL VALVE MIT DIAPHRAGM AND "FAN SUPPORT"

SAFETY AGAINST EXPLOSION - FOR SPECIFIC ATEX-APPLICATIONS



FORM NO.: H336443 REVISION: UK-0-ATEX

READ AND UNDERSTAND THIS MANUAL PRIOR TO OPERATING OR SERVICING THIS PRODUCT.





## EU Declaration of Conformity for Valves and Valve Manifolds

SPX Flow Technology Germany GmbH  
Gottlieb-Daimler-Str. 13, D-59439 Holzwickede  
herewith declares that

**APV double seal valves of the series SDMS4 ATEX design**  
in the nominal diameters DN 25 – 100, 1“ – 4“

meet the requirements of:

**Machinery Directive 2006/42/EC**  
**(superseding 89/392/EEC and 98/37/EC)**  
**and ProdSG (superseding GPSG - 9.GPSGV)**  
**and**

**Directive on the Protection against Explosion 2014/34/EU ATEX (superseding 94/9/EC)**  
**for Equipment Category 2G IIB TX**

For official inspections, SPX FLOW presents  
a technical documentation according to Appendix VII of the Machinery Directive,  
this documentation consisting of documents of the development and construction,  
description of measures taken to meet the conformity and to comply with  
the basic requirements on safety and health, incl. an analysis of the risks,  
an analysis of ignition hazards as well as an instruction manual with safety instructions.

The conformity of the valves is guaranteed.

An ATEX documentation is lodged at the notified body DEKRA EXAM GmbH  
in Bochum, Germany (No. 0158).

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November 2017

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Double seal valve SDMS4, SDEMS4	<b>RN ATEX 01.054.74</b>
Double seal change-over valve SDMSU4	<b>RN ATEX 01.054.76</b>
Double seal tank outlet valve SDTMS4	<b>RN ATEX 01.054.75</b>
Leakage valve	<b>RN 01.054.67-1</b>
Actuator	<b>RN 01.054.86</b>





## 1. General Terms

This instruction manual applies for the APV DELTA SDMS4 double seal valve in the dimensions DN25-100, 1"-4" for use in specific ATEX applications (according to Directive 2014/34/EU).

The valve must only be assembled, disassembled and reassembled by persons who have been trained in APV valves or by SPX FLOW service team members. If necessary, contact your local SPX FLOW representative.

This instruction manual must be read and observed by the responsible operating and maintenance personnel.

We point out that we will not accept any liability for damage or malfunctions resulting from the non-compliance with this instruction manual.

Descriptions and data given herein are subject to technical changes.

### 1.1. Symbols



This symbol draws your attention to important directions which have to be observed with regard to the operation in explosive areas.



This technical safety symbol draws your attention to important directions for operating safety. You will find it wherever the activities described are bearing health hazards or risks for persons or material assets.

### 1.2. Responsibility for ATEX certification - scope of supply

SPX FLOW will be held responsible only for the valves supplied and selected according to the operating conditions indicated by the customer or end user and as stated in the order confirmation. If in doubt, contact your local SPX FLOW partner.

All other assembled equipment and devices must have a separate certification of at least the same or higher grade of protection as the valve supplied by SPX FLOW, provided by the supplier(s) of that equipment and devices. The complete unit must be certified separately by the final assembling manufacturer and must have a separate name plate supplied by the unit manufacturer.

## 2. Safety Instructions



### Danger!

**Depressurize** and, if possible, discharge the line and cleaning system before any maintenance work.



### Do not reach into the open valve or yoke!

Risk of injury by suddenly operating valve. In dismantled state there is the risk of bruising at movable parts of the valve.



### Attention!

Valve design NC (normally closed): Before releasing the housing screws, relieve the valve insert by controlling the actuator.



Electric and pneumatic lines must be disconnected before assembly or disassembly of the valve (e.g. for seal replacement).



Regular maintenance including replacement of all seals, diaphragms and guide bushings must be scheduled in order to prevent leakages.



In case of damage of the diaphragm, fluids will leak from the leakage bore in the yoke area. Leakages must be drained safely.



During valve operation, operating leakages flow off downwards via the leakage valve. Safe drain of the operating leakages must be provided. The operator is responsible for the reliable drainage of operating leakages.



Observe service instructions to ensure safe maintenance of the valve.



### Risk of burn

**To prevent personal injury, the valves must not be touched during CIP cleaning or sterilization with hot water or steam.**

## 2. Safety Instructions

Installation, connection, start-up, maintenance and repair work must only be carried out by qualified personnel.

The following aspects must be observed:

The instructions of this manual together with all relevant instructions for the components, equipment and installations installed.



- Warnings and installations fixed to the components.



- The specific regulations for and requirements to the system in which the valve is installed.



- The currently valid regional, national and international regulations.



- Any special requirement and national legislation relative to the use of flammable liquids or tools, e.g. the risk of ignition in case of spark formation, must be observed.



- It must be ensured that the group, the category and the temperature class of the valve complies with the minimum requirements of the operating environment!



- Inflammable gas mixtures or dust concentrations in connection with hot, operational and movable parts of the valve can lead to serious or fatal injury!



Before start of assembly and disassembly the operator must make sure that an explosive atmosphere does not exist (detection/ measurement of potential concentration of hazardous substances)!



Conductive connection to the pipeline must be provided. The integration into the internal potential equalisation must be guaranteed!



- If the valve is used for inflammable liquids, it must be observed that operating leakage flows out during every valve operation. These operating leakages must be drained of in a closed system. The operator has to consider this fact during the review and classification of exterior explosive areas.

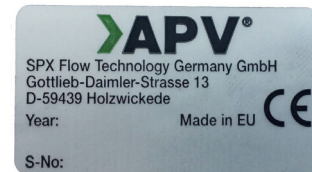
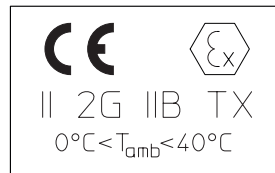
APV CU2, CU3 and CU4 control units are **not** suited for use in ATEX environment.

If a control unit is used, this must be ATEX - compliant.

## 3. Identification of valve, Temperature classes, Responsibilities

### 3.1. Identification of valves for use in ATEX environment

**ATEX - identification:**



- Equipment group II
- Equipment category 2G inside and outside
- Explosion subcategory IIB

Ambient temperature for the operation

$$0\text{ °C} \leq T_{\text{amb}} \leq 40\text{ °C}$$

- temperature classes TX (according to table 3.2)

### 3.2. Temperature classes and permissible temperatures

Media temperature	≤ 75 °C	≤ 95 °C	≤ 130 °C	up to 140 °C = T <sub>max</sub> .
Safety addition	+ 5 °C	+ 5 °C	+ 5 °C	+ 5 °C
Temperature class	T6	T5	T4	T3

Under standard operating conditions the highest surface temperature will be comparably as high as the temperature of the medium (product and cleaning liquid) plus a safety addition for local temperature increases. The valve must be completely free to the environment in order to provide for sufficient heat release.

All data (temperature classes) refer to an ambient temperature of 0°C to 40°C. If the ambient temperature is above 40°C, the temperature difference must be adjusted. In all cases, contact your responsible SPX FLOW representative!

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## 3. Identification of valve, Temperature classes, Responsibilities

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### 3.3. Responsibilites

It is within the operator`s responsibility to ensure that the specified product temperatures are not exceeded and that regular inspections and maintenance are carried out to provide for proper function of the valve.

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## 4. Intended Use

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The intended use as field of application of the APV DELTA SDMS4 double seal valve with aseptic diaphragm is the shut-off of line section, especially in the beverage and food industry.

Arbitrary, constructive changes at the valve will influence safety as well as the intended functionality of the valve and are **not** permissible.

Its use is permissible only within the admissible pressure and temperature margins and under consideration of chemical and corrosive influences.

Any use exceeding the margins and specifications set forth, is considered to be not intended.

Any damage resulting therefrom is not within the responsibility of the manufacturer.

The user will bear the full risk.



#### **Attention!**

Improper use of the valve leads to:

- damage
- leakage
- destruction.

Failures in the production process are possible.



#### **Warning!**

The valve is suitable for use in hazardous areas as identified on the valve according to Directive 2014/34/EU.

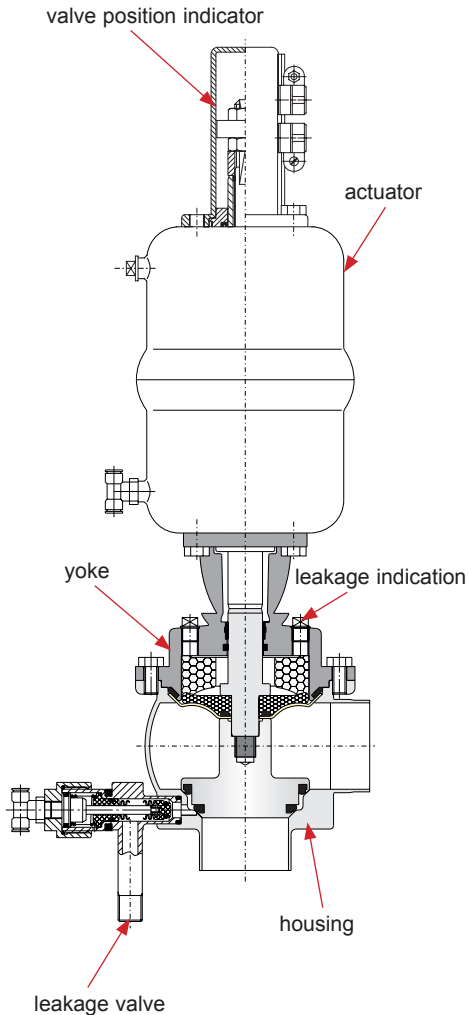
#### **Authorizations and External Evaluations**

To view the certifications for this and other innovative SPX FLOW products, visit

<https://www.spxflow.com/en/apv/about-us/certifications/>

## 5. Mode of Operation

### DELTA SDMS4



#### 5.1. General terms

Use of high-quality stainless steel and seal materials to the specified requirements, the double seal valve with diaphragm and “fan support” DELTA SDMS4 is applicable in the food and beverage industries as well as in the pharmaceutical and chemical sector.

Double seal valves with diaphragm offer optimum protection of the product in hygienic and aseptic applications. Product safety is achieved by the hermetic separation of the product chamber to the outside (atmosphere) by means of a flexible diaphragm with “fan support”.

The field of application of the DELTA SDMS4 comprises the safe shut-off and diversions of line sections being separated from one another by two seat seals. A leakage chamber is arranged between the seals, the leakage chamber being forcibly closed by the two leakage valves or opened to the atmosphere to release the operating leakage.

- **As standard, the SDMS4 valve series is equipped with a valve position indication.**
- Operation by pneumatic actuator with air connection, reset by spring force. The actuator is generally mounted normally closed (NC).
- By different assembly of the actuator, the following designs are possible:
  - NC (FS):** actuator normally closed
  - \* **NO (FH):** actuator normally open
 (\* In the NO (FH) version, the leakage valves must be controlled separately.)
- The inner parts of the actuator are maintenance-free.
- To avoid pressure hammers, the valve should be closed against the flow direction of the fluid.
- Leakage at the diaphragm is indicated via a leakage indication in the yoke area. Leakages must be drained off safely.
- Leakage at the seat seals is discharged via the leakage valves to the atmosphere. Leakages must be drained off safely.
-

## 5. Mode of Operation

- Different valve designs are available:
  - Single seat valve: SDMS4, SDEMS4
  - Tank outlet valve: SDTMS4
  - Change-over valve: SDMSU

## 6. Auxiliary Equipment

### 6.1. Tank outlet flange for SDTMS4 valve series

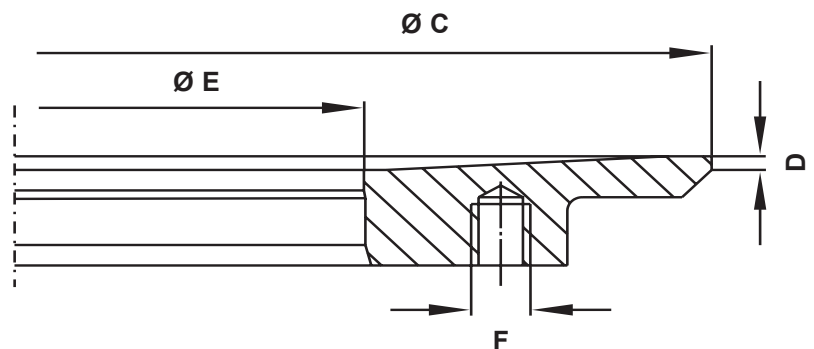
**Attention:** The weld seam preparation at the flange is designed for tank wall thicknesses up to 5 mm.

The tank bottom welding flange does not form part of the scope of supply of the valve and can be ordered under the following reference/ID number.

DN	Inch	Ø C	D	Ø E	F	Reference number ID-No.
40	1,5"	148	2	66	M8	31B 15-01-391/42 H157269
50	2"	188	2	94	M8	31B 15-01-491/42 H157260
65	2,5, 3"	228	2	109	M10	31B 15-01-541/42 H156931
80,100	4"	288	2	159	M10	31B 15-01-691/42 H157272

Dimensions in mm

Tank bottom welding flange  
(option)



## 6. Auxiliary Equipment

### 6.2. Connections

Beside the housings with weld ends, the following connections are available:

- threaded connection acc. to DIN 11851
- threaded connection IDF / ISS acc. to ISO 2853
- threaded connection RJT acc. to BS 4825-5
- threaded connection SMS
- threaded connection acc. to DS 722
- flange connection FGN1 DIN
- flange connection FGN1 Inch
- clamp connection acc. to DIN 32676
- clamp connection acc. to ISO 2852

## 7. Cleaning

For the cleaning of SDMS4 valves distinction is made between two areas.

### 7.1. Flow areas

The passages of the valve are cleaned by the cleaning liquid during cleaning of the connected pipelines.

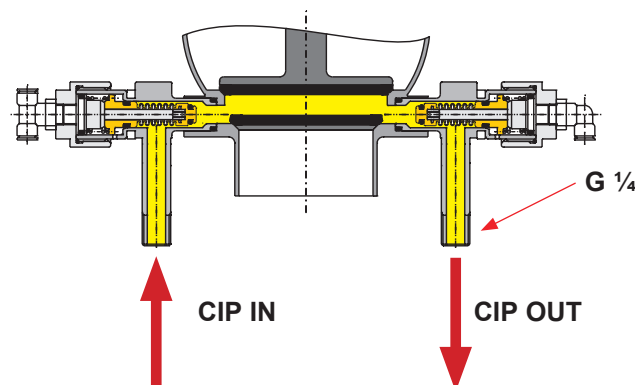
### 7.2. Leakage chamber

Cleaning of the leakage chamber is undertaken via the leakage valves. The cleaning liquid is supplied via one leakage valve and discharged to the atmosphere via the second leakage valve.

The restraint passage of the cleaning liquid provides for perfect cleaning of the whole leakage chamber.

- Flushing quantity per CIP spraying cycle about 1.2ltr/10s
- Cleaning pressure at CIP cleaning connection: min. 2 bar.  
max. 5 bar.

Under normal conditions, 15 valves DN 25/1" - 100/4" can be cleaned via one spray distribution line DN 25.





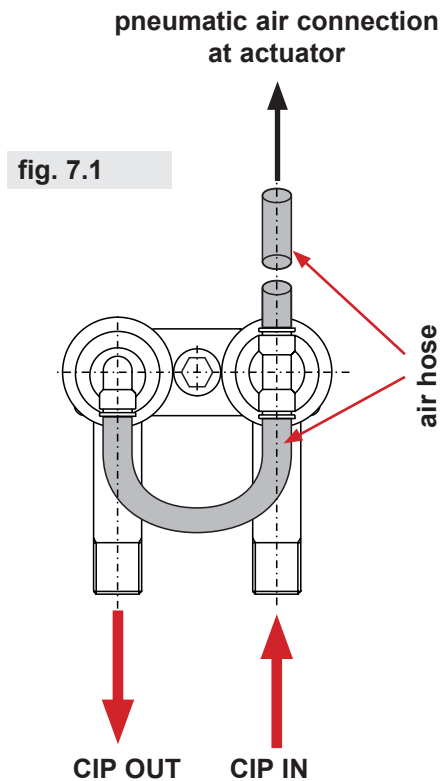
## 7. Cleaning

### 7.3. Cleaning recommendation (leakage chamber)

Recommendation of cleaning times for standard operating conditions and CIP liquids.

Cleaning step	CIP spraying
pre-flushing	2 x 10 sec.
caustic flushing 80° C	3 x 10 sec.
intermediate flushing	2 x 10 sec.
acid flushing	3 x 10 sec.
subsequent flushing	2 x 10 sec.
	(with resp. break of 10 sec.)

- The cleaning cycles refer to a cleaning pressure of  $p = 2-5$  bar.
- The spraying cycles indicated for the individual cleaning steps are reference values, only. In specific applications, these times must be adapted considering the product, pressure ratio and degree of soiling.
- Depending on the degree and constituents of soiling, the cleaning liquids, times and processes must be scheduled for the individual application.
- The compatibility of the individually selected cleaning processes and liquids with the respectively used seals must be verified.



### 7.4. Hosing of leakage valves: see fig. 7.1.

## 8. Installation

### 8.1. General terms

Installation has to be done in such a way that fluids can drain off the valve housing and is preferably to be realized in vertical position.

The valve housing can be welded direct into the pipeline system (completely dismantable valve insert).



- Conductive connection to the pipeline must be provided. The integration into the operational potential equalization must be guaranteed!



- As described in the Safety Instructions of chapter 2, leakages, especially operating leakages must be drained off safely.

**Attention:** Observe welding instructions.

### 8.2. Welding instructions

SDTMS4

- **Tank bottom flange:**

Separate the tank bottom flange from the valve housing. Observe the hole position during welding (position of valve housing port).

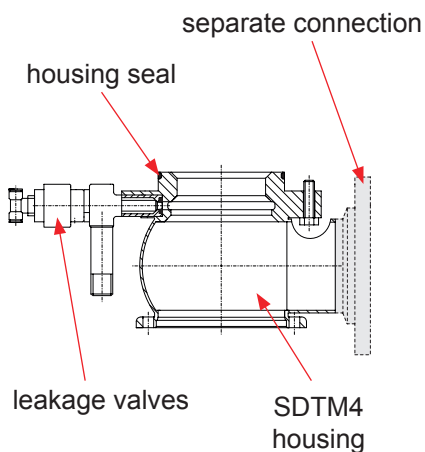
- **SDTM4 valve housing:**

During dismantling of the valve insert and of the leakage valves carefully observe that damage does not occur. Remove the housing seal from the tank bottom flange.

- **Valve housing - general:**

Before welding of the separate connections (flanges or unions) at the valve housing, the valve insert and the two leakage valves must be removed from the housing. See to a careful handling to prevent damage.

- Welding should only be carried out by certified welders (DIN EN ISO 9606-1) (Seam quality DIN EN ISO 5817).



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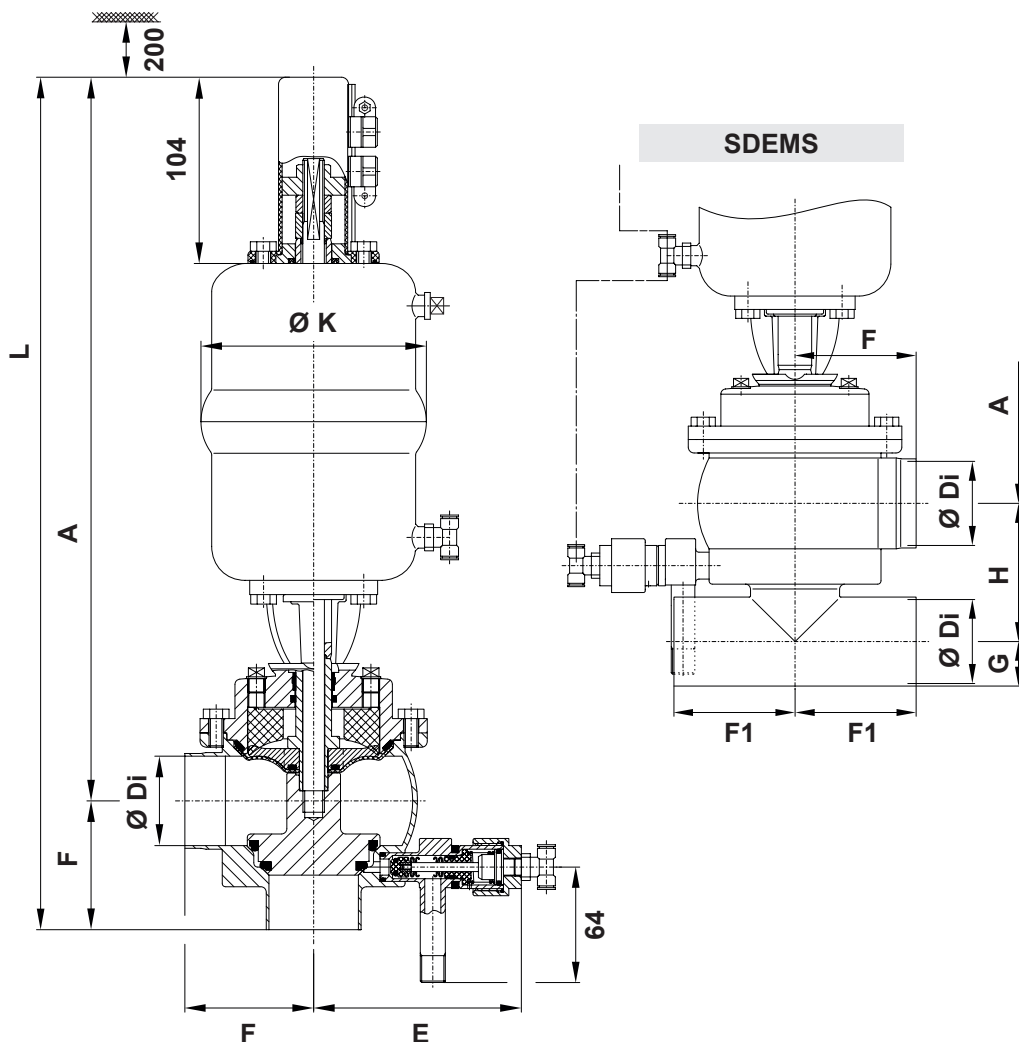
## 8. Installation

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- Welding of the valve housings must be undertaken in such a way that the valve body is not deformed.
- The preparation of the weld seam up to 3 mm thickness must be carried out as a square butt joint without air. (Consider shrinkage!) TIG orbital welding is best!
- TIG orbital welding is best!
- After welding of the valve housings or of the mating flanges and after work at the pipelines, the corresponding parts of the installation or pipelines must be cleaned from welding residues and soiling. If these cleaning instructions are not observed, welding residues and dirt particles can settle in the valve and cause damage.
- Any damage resulting from the non-observance of these welding instructions is not subject to our guarantee.
- For aseptic applications observe Welding Directives according to AWS/ANSI and EHEDG.

## 9. Dimensions / Weights

### 9.1. Single seat diaphragm valves SDMS4, SDEMS4



housing variants

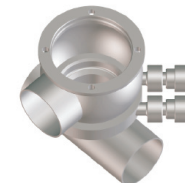
**SDM 41**



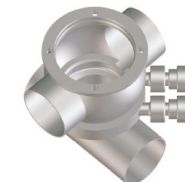
**SDM 42**



**SDEM 43**



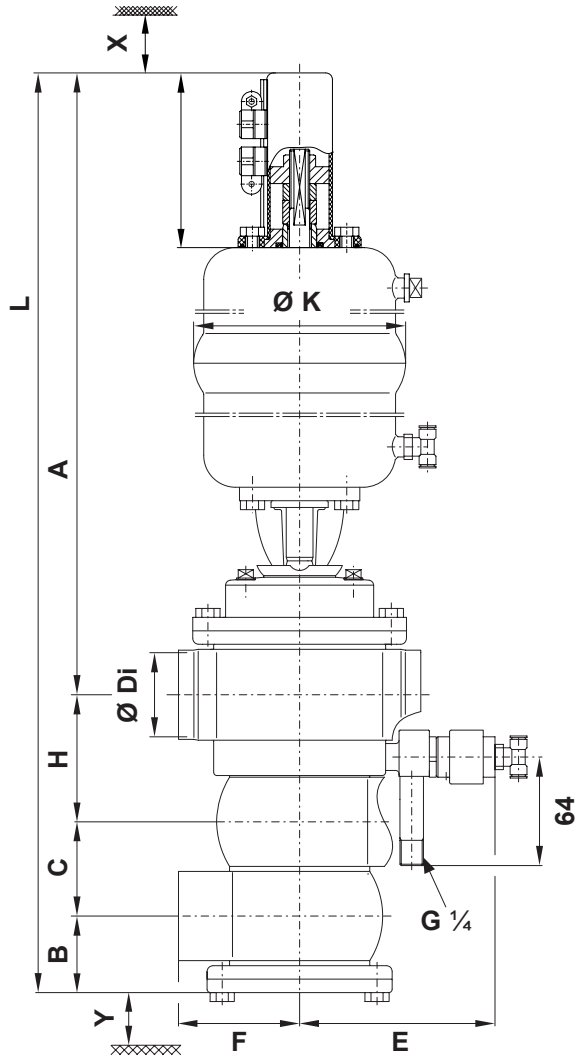
**SDEM 44**



Dimensions in mm										Weight in kg
DN	A	Ø Di	E	F	F1	G	H	Ø K	L	
25	388,3	26	110	68	50	14,5	60	126	456,3	4,2
40	394,3	38	115	67	67	20,5	72	126	461,3	7,1
50	404,5	50	117	72	72	26,5	84	126	476,5	7,1
65	460,6	66	127	85	85	35,0	100	189	545,6	7,9
80	475,6	81	140	98	98	42,5	115	189	573,6	14,2
100	484,6	100	140	111	111	52,0	134,6	189	595,6	15,2
Inch										
1"	386,3	22,6	110	68	50	12,7	55,8	126	454,3	4,2
1,5"	393,3	34,9	115	67	67	19,0	68,9	126	460,3	7,1
2"	403,0	47,6	117	72	72	23,8	81,6	126	475,0	7,1
2,5"	456,6	60,3	127	85	85	31,7	94,3	189	541,6	7,9
3"	463,4	72,9	123	90	90	38,0	107,0	189	553,4	14,5
4"	482,6	97,6	140	111	111	50,8	131,9	189	593,6	15,2

## 9. Dimensions / Weights

### 9.2. Change-over diaphragm valve SDMSU4



Installing/Dismantling dimensions in mm		
DN/Inch	X	Y
40/1,5"	200	330
50/2"	200	340
65/2,5"	200	360
80/3"	200	410
100/4"	200	430

#### housing variants

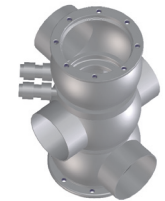
##### SDMSU 45



##### SDMSU 46



##### SDMSU 47



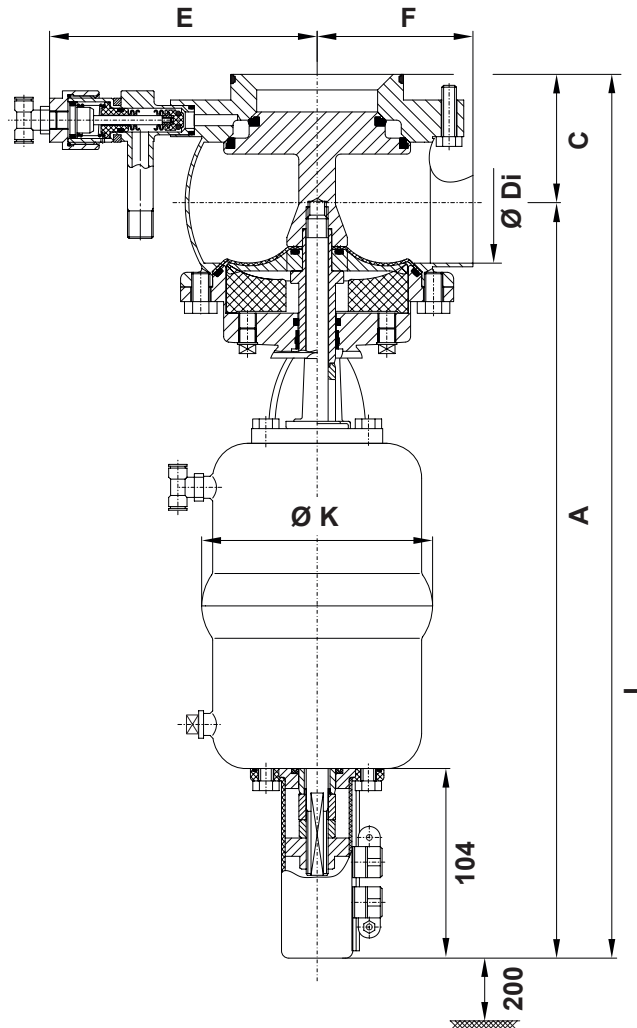
##### SDMSU 48



Dimensions in mm										Weight in kg
DN	A	B	C	Ø Di	E	F	H	Ø K	L	
40	394,3	37,5	44	38	115	67	63,5	126	539,3	13,0
50	404,5	45,5	56	50	117	72	75,5	126	581,5	15,5
65	460,6	52,0	74	66	127	85	92,0	189	678,0	18,5
80	475,6	59,5	91	81	140	98	107,5	189	733,6	25,5
100	484,5	69,0	110	100	140	111	126,5	189	790,0	31,0
Inch										
1,5"	393,3	36,1	40,8	34,9	115	67	60,3	126	537,9	13,0
2"	403,0	44,4	53,8	47,6	117	72	73,3	126	574,5	15,5
2,5"	456,6	49,0	68,3	60,3	127	85	86,3	189	675,8	18,5
3"	463,4	55,1	80,9	72,9	123	90	99,4	189	698,8	25,5
4"	482,6	67,8	107,6	97,6	140	111	124,1	189	782,1	31,0

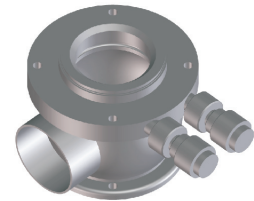
## 9. Dimensions / Weights

### 9.3. Tank outlet diaphragm valve SDTMS4

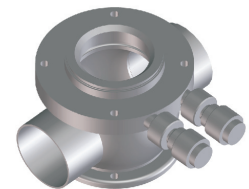


housing variants

**SDTM 41**



**SDTM 42**



Dimensions in mm								Weight in kg
DN	A	C	Ø Di	E	F	Ø K	L	
25	388,3		26			126		
40	394,3	56	38	122	67	126	450,3	7,2
50	404,5	63	50	138	87	126	467,5	7,2
65	460,6	73	66	151,5	100	189	533,6	8,0
80	475,6		81			189		
100	484,5	92	100	181,5	130	189	576,5	15,3
Inch								
1"	386,3		22,6			126		
1,5"	393,3	55	34,9	122	67	126	448,3	7,2
2"	403,0	62	47,6	138	87	126	465,0	7,2
2,5"	456,6	70	60,3	151,5	100	189	526,6	8,0
3"	463,4	76,5	72,9	151,5	100	189	539,9	14,6
4"	482,6	90,8	97,6	151,5	130	189	573,4	15,3

## 10. Technical Data

### 10.1. General terms

- Product-wetted parts:	1.4404 (DIN EN 10088)
- Other parts:	1.4301 (DIN EN 10088)
- Seals:                    standard:	EPDM
Option:	HNBR, VMQ, FPM
- Diaphragm:	PTFE (TFM compound)
- Actuator:	1.4301 (DIN EN 10088)
- max. line pressure:	10 bar
- max. operating temperature:	135°C EPDM, HNBR *FPM, *VMQ
- short-term load:	140°C EPDM, HNBR *FPM, *VMQ *(no steam)
- air connection (for hose):	6 x 1mm
- max. pneumatic air pressure:	8 bar
- min. pneumatic air pressure:	6 bar
- leakage indication in yoke area:	G1/8"

Use dry and clean air, only!

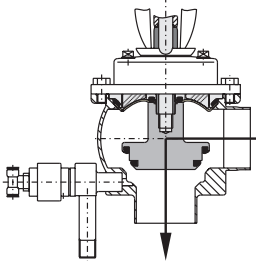
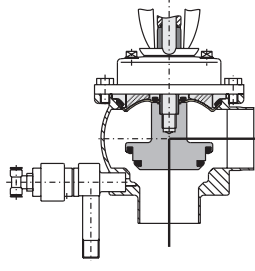
### 10.2. Specification of compressed air quality

compressed air quality:	Quality class acc. to DIN/ISO 8573-1
content of solid particles:	Quality Class 3 max. size of solid particles per m <sup>3</sup> 10000 of 0.5 µm < d < 1.0 µm 500 of 1.0 µm < d < 5.0 µm
content of water:	Quality Class 4 max. dew point temperature -20 °C For installations at lower temperatures or at higher altitudes, additional measures must be considered to reduce the pressure dew point accordingly.
content of oil:	Quality Class 1 max. 0.01 mg/m <sup>3</sup>

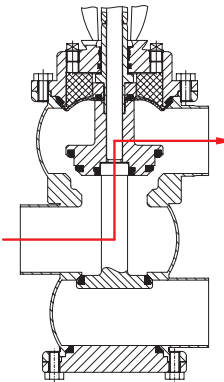
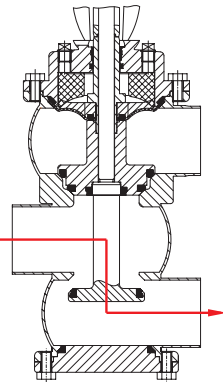
The oil applied must be compatible with Polyurethane elastomer materials.

## 10. Technical Data

### 10.3. Kvs values in m<sup>3</sup>/h Single seat diaphragm valves SDMS

		
DN, Inch		
25, 1"	22	22
40, 1,5"	42	38
50, 2"	73	70
65, 2,5"	120	112
3"	135	135
80	170	160
100, 4"	325	276

### 10.4. Kvs values in m<sup>3</sup>/h Change-over diaphragm valve SDMSU

	illustration NO (FH) "normally open"	illustration NC (FS) "normally closed"
DN, Inch		
40, 1,5"	38	38
50, 2"	70	70
65, 2,5"	112	112
3"	130	120
80	160	160
100, 4"	275	275



## 10. Technical Data

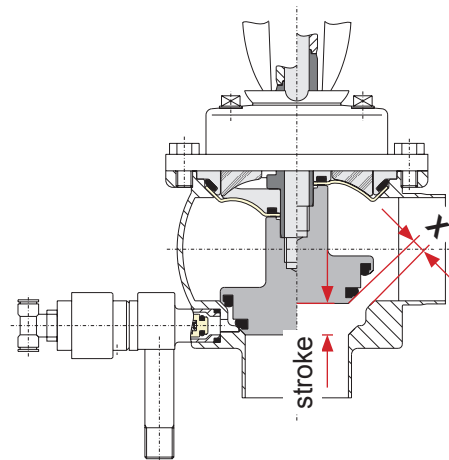
### 10.5. Closing times for Single seat and Change-over valve SDMS

Closing times in sec. at 6 bar control pressure			
		hose length in meter	
DN	Inch	1 m	10 m
25	1"	1	2
40	1,5"	3	4
50	2"	3	4
65	2,5"	5	6
80	3"	5	6
100	4"	5	6

### 10.6. Control air consumption at 6 bar control pressure

actuator	per stroke NL
Ø 110 mm	2,1
Ø 165 mm	4,5

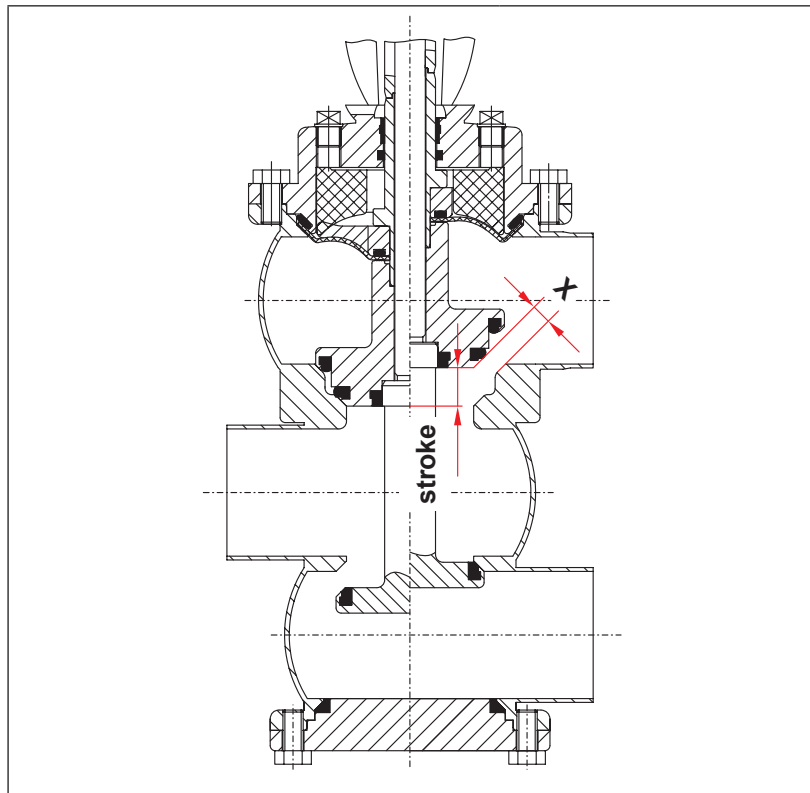
### 10.7. Valve stroke / Opening cross section (X) SDMS



DN, Inch	stroke	X
25, 1"	13	10
40, 1,5"	13	10
50, 2"	16	13
65, 2,5"	23	20
3"	23	20
80	28	25
100, 4"	28	25

## 10. Technical Data

### 10.8. Valve stroke / Opening cross section (X) SDMSU



DN, Inch	stroke	X
40, 1,5"	10	7
50, 2"	10	7
65, 2,5"	13	10
3"	20	17
80	25	22
100, 4"	25	22

## 11. Maintenance

### 11.1. General terms

The maintenance intervals depend on the corresponding application and are to be determined by the operator himself carrying out temporary checks.



Before start of maintenance and assembly the operator must make sure that an explosive atmosphere does not exist (detection/ measurement of potential concentration of hazardous substances). Alternatively, use spark-resistant tools!

The valve must not be cleaned with products containing abrasive or polishing material. Especially the valve shaft must not, under any circumstances, be cleaned with such agents. Damage of the valve shaft can lead to leakages.

The customer is recommended to hold spare seals and diaphragms on stock. For valve maintenance SPX FLOW supplies complete seal kits incl. seal greases (pl. see spare parts lists).



Required tools:

- 1x wrench SW13
- 1x wrench SW17
- 1x wrench SW19
- 1x wrench SW24
- 1x Allen wrench key 6 mm
- Cleaning rag as well as low solution of a suitable cleaning agent (observe safety data sheets of cleaning agent producer).

### 11.2. Assembly tool for seat seal

By means of the assembly tool, the upper seat seal (16) can be installed, only (see chapter 15.).

In order to simplify the installation of the seat seal, the following assembly tools are available.

SDM4 assembly tool			
DN	Inch	reference number	ID number
25	1"	000 51-13-226/17	H314439
40	1,5"	000 51-13-227/17	H314440
50	2"	000 51-13-228/17	H314441
65	2,5"	000 51-13-229/17	H311447
	3"	000 51-13-230/17	H314442
80, 100	4"	000 51-13-225/17	H314443

## 11. Maintenance

- Provide all seals with a thin layer of grease before their installation!
- Provide the product-averted side of the diaphragm with a thin layer of grease.

**Recommendation:**

APV assembly grease for EPDM, HNBR and NBR  
 (750 g/ tin - ref.-No. 000 70-01-019/93; H147382)  
 (60 g/ tube - ref.-No. 000 70-01-018/93; H147381)

**Attention!**

Less suited grease types can influence the function and lifetime.

**Recommendation:**

Screw locker

**Type:**

Loctite 243 semi-solid  
 (50ml - ref.-No.: 00070-01-111/93;  
 H206336)

### 11.3. Additionally required maintenance for valve applications in ATEX environment

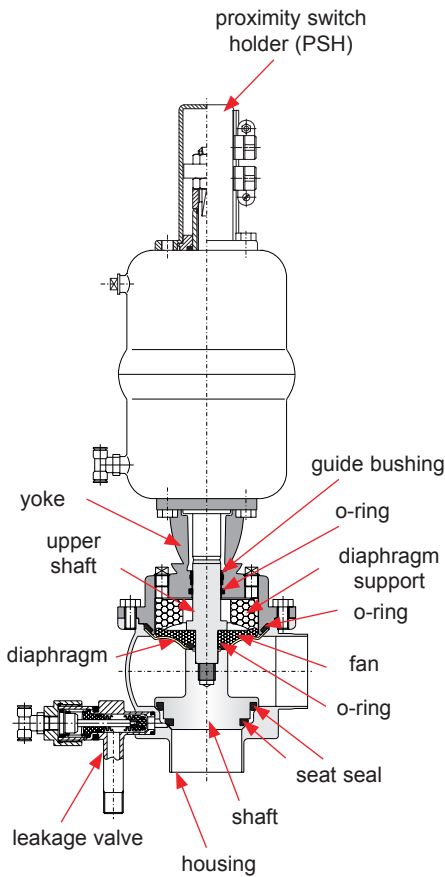
**SDMS Valves**

Valve maintenance for actuator with spring	Note
Functional test, visual inspection of valve stroke and control of abnormal running noise of spring	1 x per year
Change interval of actuator	In case of damage, incomplete actuator movement, considerable running noise of spring as well as after 250,000 cycles* as preventive measure, however, after 10 years at the latest.
Valve maintenance for actuator air/air	Note
Funktionsprüfung, Sichtkontrolle des Antriebshubs	1 x per year
Change interval of actuator	In case of damage, incomplete actuator movement as well as after 250,000 cycles* as preventive measure, however, after 10 years at the latest.

\*complies with about 8 years in 1-shift-operation and 10-15 cycles per hour.

## 12. Service Instructions

The reference numbers refer to the spare parts drawings  
**SDMS4, SDEMS4:**  
 DIN design and Inch design **RN ATEX 01.054.74**



### 12.1. Dismantling from the line system



Before start of maintenance and assembly the operator must make sure that an explosive atmosphere does not exist (detection/ measurement of potential concentration of hazardous substances). Alternatively, use spark-resistant tools!

1. Shut off the line pressure and discharge lines if possible. Moreover, shut off and discharge CIP lines at the leakage valves.

2. **NC (FS) design:** Control actuator with air.



**Do not touch movable parts!**  
**Risk of injury.**

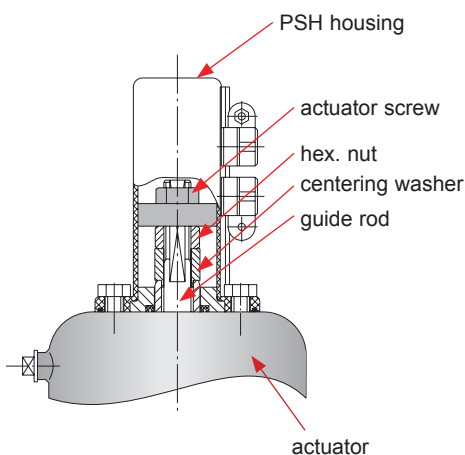
3. Remove hex. screws (9 and 11) and lift the complete valve insert with actuator out of the housing.

**NC version:** Shut off compressed air and remove compressed air connection.

#### **Design with valve position indicator (PSH):**

Remove the proximity switches. Detach the indicator housing (proximity switch holder; PSH) from the actuator.

### 12.2. Dismantling of wear parts (product-wetted parts)



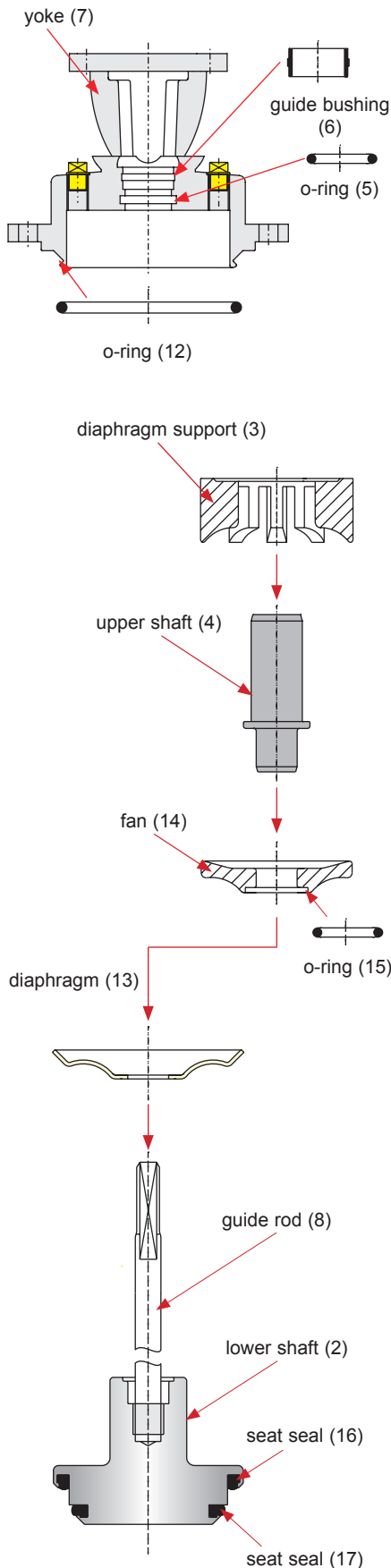
1. At first, unscrew the actuator screw (28). Release the hex. nut (25) while holding up the centering washer (24). Remove the centering washer.
2. Extract the shaft with guide rod (2), diaphragm (13), fan (14), upper shaft (4) and diaphragm support (3) from the actuator (23). Remove the seat seals (16, 17) and o-ring (15).
3. Remove the yoke (7) from the actuator (23).
  - Actuator can be maintained. (see 13. Service Instructions - Actuator).
4. Detach o-rings (5, 12) and guide bush (6) from the yoke (7).
5. Clean the valve housing, yoke, actuator and shaft with a low solution of a cleaning agent. Never use cleaning agents containing abrasive or polishing material.

## 12. Service Instructions

### 12.3. Installation of seals and assembly of valve

All seals must be provided with a thin layer of grease before their installation.

1. Insert the guide bush (6) and o-ring (5) in the yoke (7). Insert the o-ring (12) in the groove of the yoke. Fasten the yoke (7) at the actuator (23).
2. Install the seat seals (16, 17) in the lower valve shaft (2). (see **Installation of seat seal ch. 15.**)
3. Place the pre-assembled lower shaft with guide rod, diaphragm, fan with o-ring, upper shaft and diaphragm support through the yoke (7) and actuator (23).
  - The upper shaft must be guided through the guide bush into the yoke in smooth-running manner. In case of mechanical stiffness, check the right fit of the guide bush.
  - Toothing of fan and diaphragm support must interlock.
4. Place the centering washer (24). Apply a drop of a screw locker, e.g. type Loctite, semi-solid, on the thread of the guide rod. Screw on the hex. nut (25) and fasten it with a **tightening torque of  $M_d = 25 \text{ Nm}$** . Hold up the centering washer during this process. Fix the metallic actuator screw (28).



## 12. Service Instructions

### 12.4. Installation of SDMS4 valve

1. Install the PSH housing (28).
2. **During the assembly of the valve insert in NC (FS) valve design, observe the following:**
  - Control the actuator (version: NC) with pneumatic air min. 6 bar. Carefully place the valve insert into the valve housing. The diaphragm (13) must not be damaged during the installation in the valve housing. Tighten the hex. screws (9) crosswise in the housing flange.



**Do not touch movable parts!**  
**Risk of injury**

! **Version NC: Shut off air supply.**

3. Push in the proximity switches and fasten them. Re-adjust the proximity switches if necessary.
4. **Adjustment of proximity switches: (fig. 12.4.1)**
  - Drive the actuator into a limit position.
  - Drive the corresponding proximity switch into the corresponding position. For this purpose release the positioning screw and move the holder until the corresponding signal is indicated. Then, continue to slide the holder by 2 to 3 mm in order to secure the indication. Fasten the positioning screw.
  - Position the actuator in the other limit position and carry out the positioning of the second proximity switch.
  - Upper valve position indication:  
valve **NO** "normally open" (air-to-lower, spring-to-raise)
  - Lower valve position indication:  
valve **NC** "normally closed" (air-to-raise, spring-to-lower)

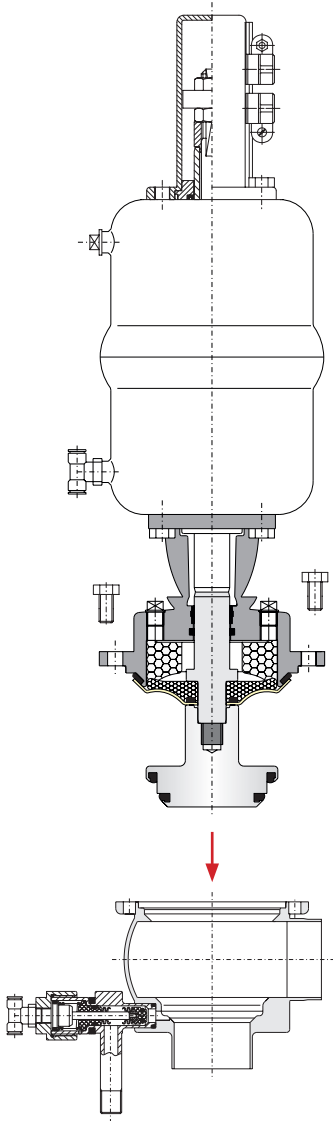
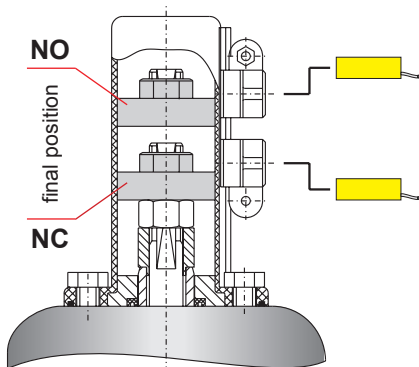


fig. 12.4.1.

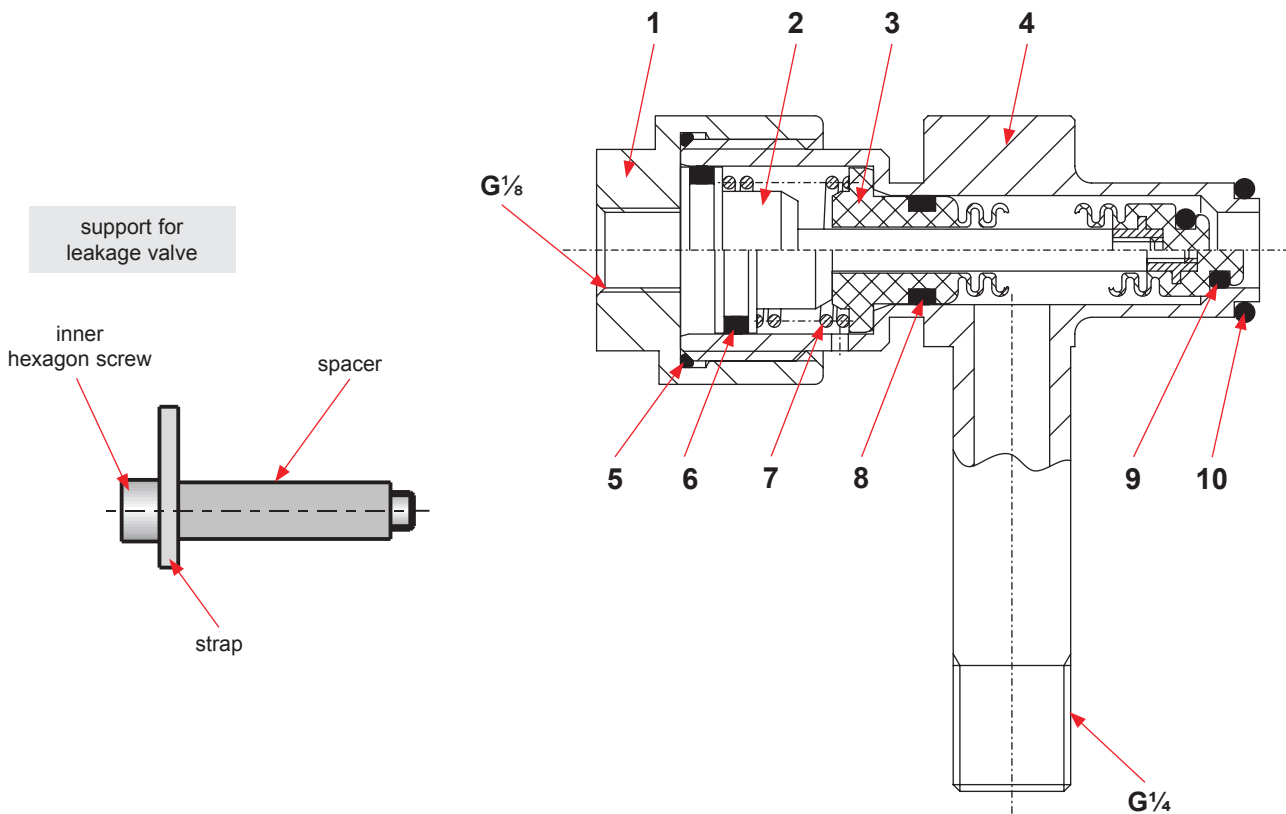


## 13. Service Instructions - Leakage Valves

### 13.1. Maintenance of leakage valves

The item numbers refer to the corresponding spare parts list leakage valves SDMS4 RN: **01.054.67-1**.

1. Disconnect the pneumatic air hoses at the two leakage valves.
2. Shut off and discharge the CIP supply line.
3. Remove the CIP supply and discharge lines from the leakage valves.
4. Release the hexagon socket screw and remove the strap.
5. Pull the leakage valves out of the housing flange.
6. Pull out the cap (1), piston (2) and spring (7).
7. Dismantle all seals (5, 6, 8, 9, 10).
8. Assembly is undertaken in reverse order.

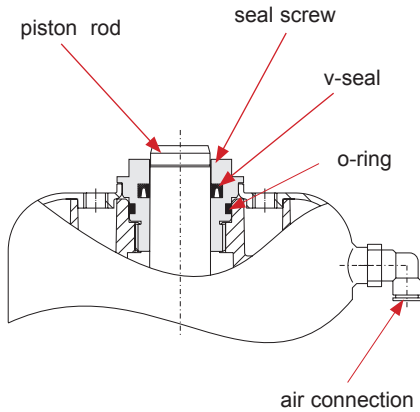




## 14. Service Instructions - Actuator

### 14.1. Maintenance of Actuator

See spare parts drawing and list Actuator: **RN 01.054.86**



1. Remove the air hoses from the actuator.
2. Remove the inner hexagon screws from the adapter of the control unit.
- Remove the adapter.

### 14.2. Dismantling of seals

1. Unscrew the two seal screws with a wrench SW 30.
2. Remove o-rings and v-seals.

### 14.3. Installation of seals and assembly of actuator

1. Install the slightly greased o-rings and v-seals in the seal screws (**fig. 14.3**).

See to the right direction of installation of the v-seal.

2. Slide the seal screws over the piston rod at both sides of the actuator and tighten them.
3. Fasten the adapter of the control unit and the yoke on the actuator.

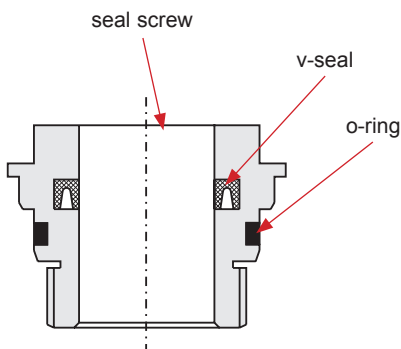
**Attention:** Observe the position of the adapter.

**Attention:** Consider the required valve design NC or NO during the installation of the adapter and the yoke.

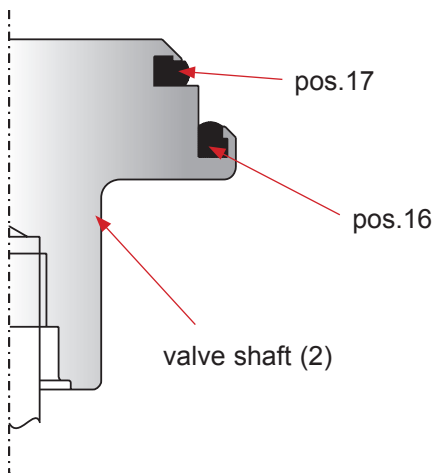
NC (FS) = normally closed  
NO (FH) = normally open

4. Fasten the air hoses.

**fig. 14.3.**



## 15. Installation of Seat Seal



By means of the assembly tool only the seat seal (16) can be installed. This seat seal must be mounted in the valve shaft, at first.

Afterwards the seat seal (17) must be inserted manually into the groove, see chapter 15.2.

See to an even fit of the seal.

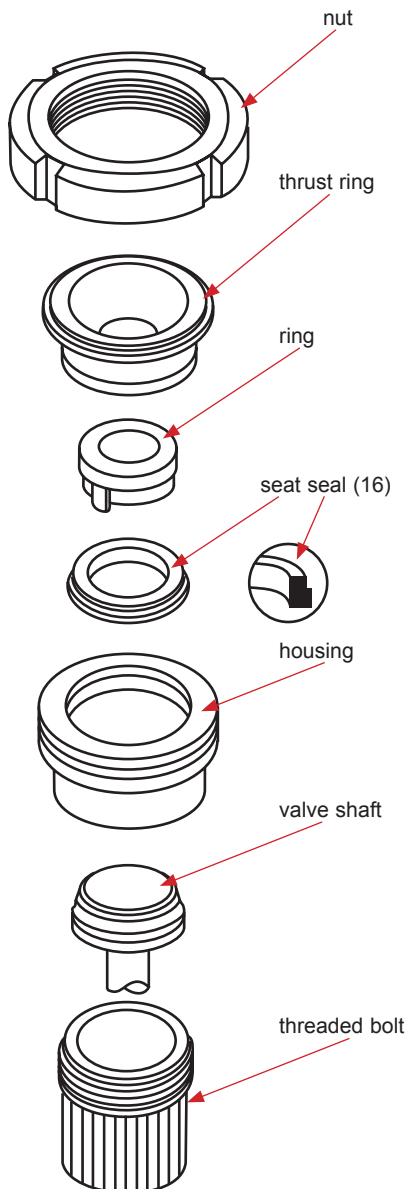
### 15.1. Installation of seat seal in valve shaft

The assembly tool consists of:

- nut
- thrust ring
- ring with vent nose
- housing
- threaded bolt

1. Insert valve shaft into the housing in such a manner that the seal groove is in the valve housing.
2. Mount the shaft in the housing by means of the threaded bolts. Clamp the housing in the vise.
3. Slightly grease the seat seal with APV food-grade grease. The receiving groove for the seat seal must not be greased. Place the seal on the ring with the vent nose until it stops.
4. Insert the ring with the installed seat seal into the housing and press it down until it stops.
5. Introduce the thrust ring into the housing. Screw on the nut and tighten it by a hook spanner until it stops.
6. Release the nut. Pull the ring and thrust ring out of the housing.
7. Take the housing out of the vise, remove the threaded bolts. Take the valve shaft out of the housing.

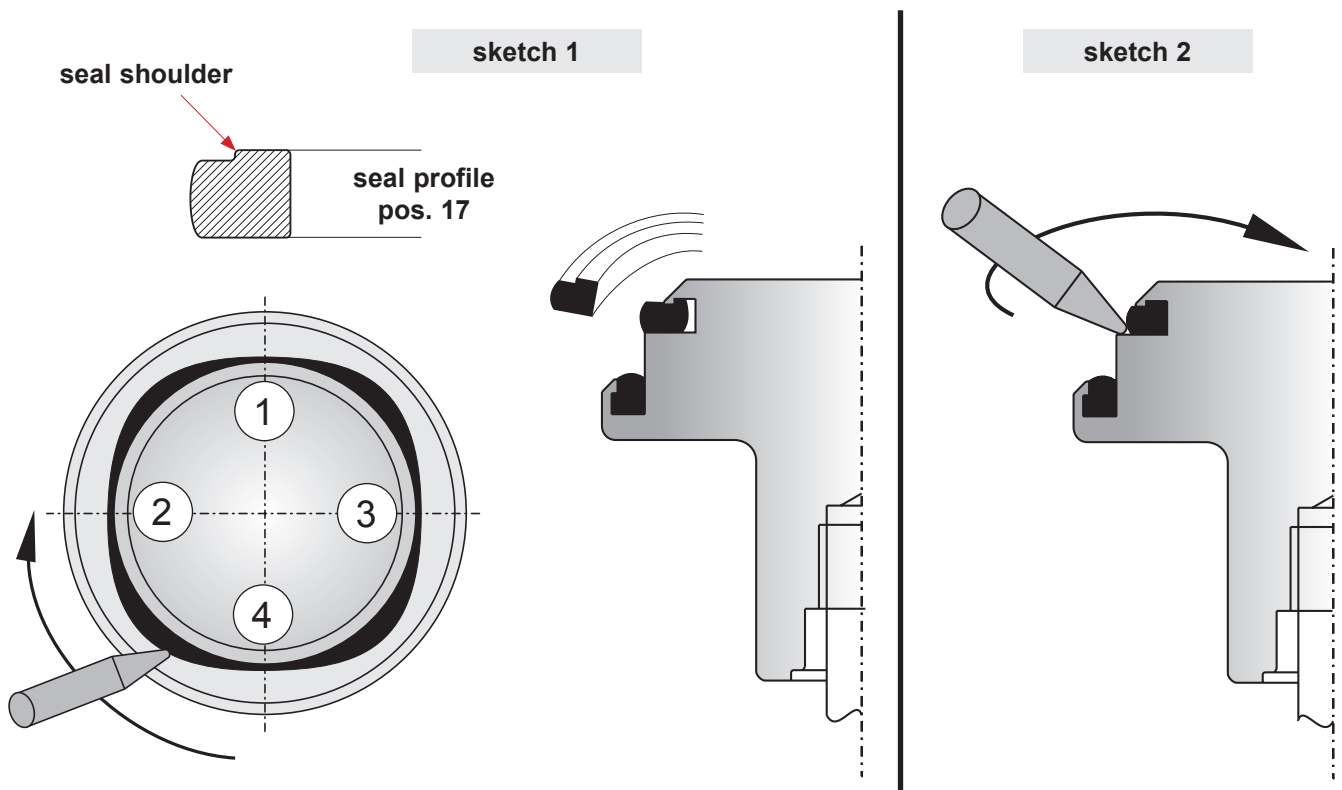
Check the even fit of the seat seal.



## 15. Installation of Seat Seal

### 15.2. Manual installation of seat seal (pos. 17)

1. Provide the seat seal with a thin layer of grease before its installation.  
The receiving groove for the seat seal must not be greased.
2. Clamp the valve shaft into a vise.  
The valve shaft must not be damaged during this process. Use protective rags.
3. Press the slightly greased seal at four spots, the wide side to the front into the groove (**see sketch 1**).
4. Press the seal at four opposite spots **1-2, 3-4** into the groove by means of an assembly tool (screwdriver with round edges can also be used) (**see sketch 1**).
5. Press the seal into the groove step by step. Proceed alternately, always working at two opposite spots at the same time. See to an even fit of the seat seal.
6. Afterwards insert the assembly tool between the seal shoulder and the groove wall. Work around the complete groove circumferences. The bottom of the groove is vented and the seal shoulder will lock in place (**see sketch 2**).



## 16. Service Instructions - Change-over Valve SDMSU4

### SDMSU4 Change-over Valve

The reference numbers refer to the spare parts drawings.

SDMSU4      DIN / Inch design:      **RN ATEX 01.054.76**

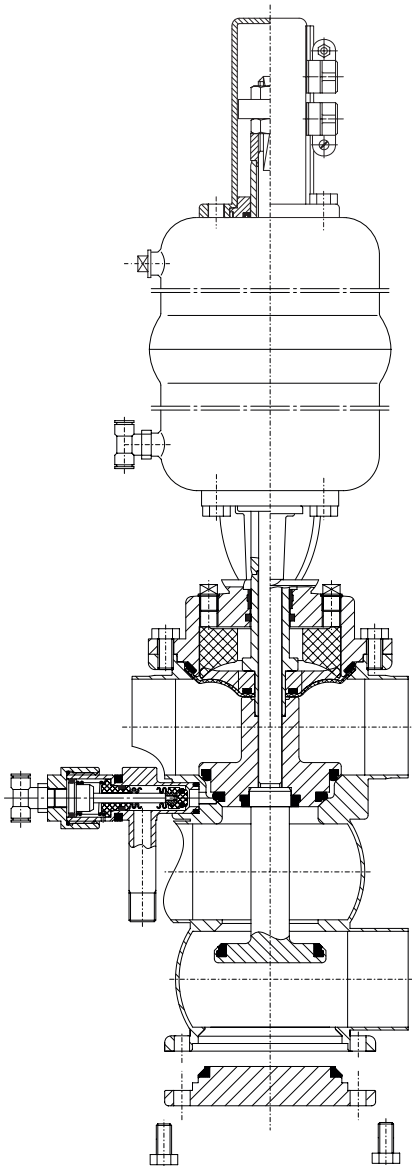
### 16.1. Dismantling from the line system



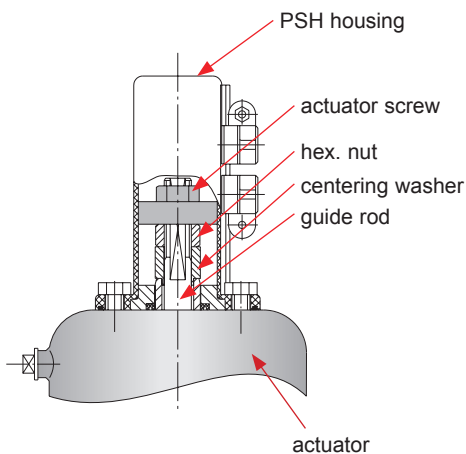
Before start of maintenance and assembly the operator must make sure that an explosive atmosphere does not exist (detection/ measurement of potential concentration of hazardous substances). Alternatively, use spark-resistant tools!

1. Shut off the line pressure and discharge lines if possible.
2. Shut off and discharge CIP supply line.

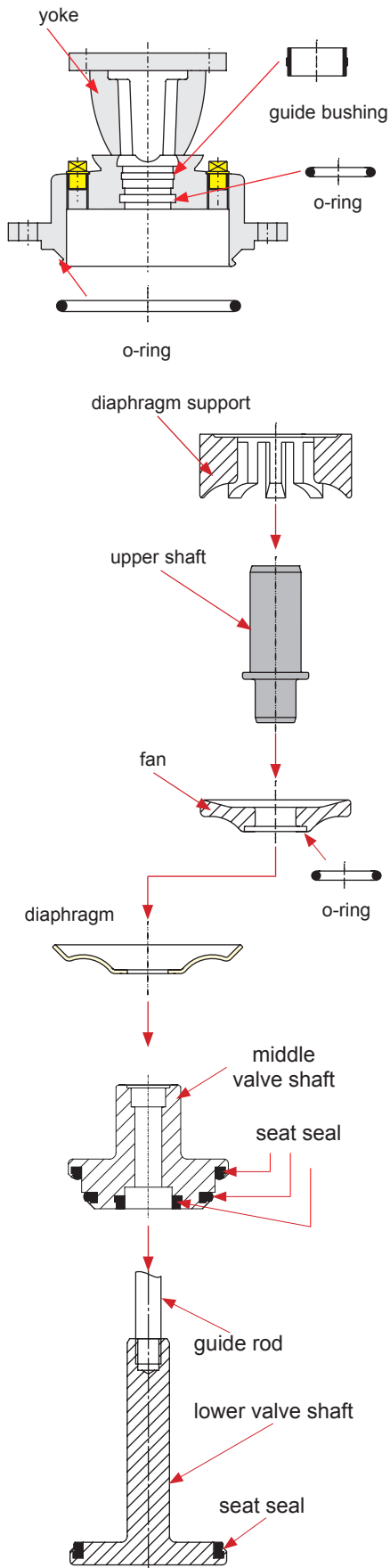
- **Version with proximity switch holders (PSH):**
- Remove proximity switch. Detach the PSH housing (proximity switch holder) from the actuator.



**NC/FS design**



## 16. Service Instructions - Change-over Valve SDMSU4



### 16.2. Dismantling of wear parts (product-wetted parts)

1. NO (normally closed) design: Control actuator with air.



**Do not touch movable parts!**  
**Risk of injury.**

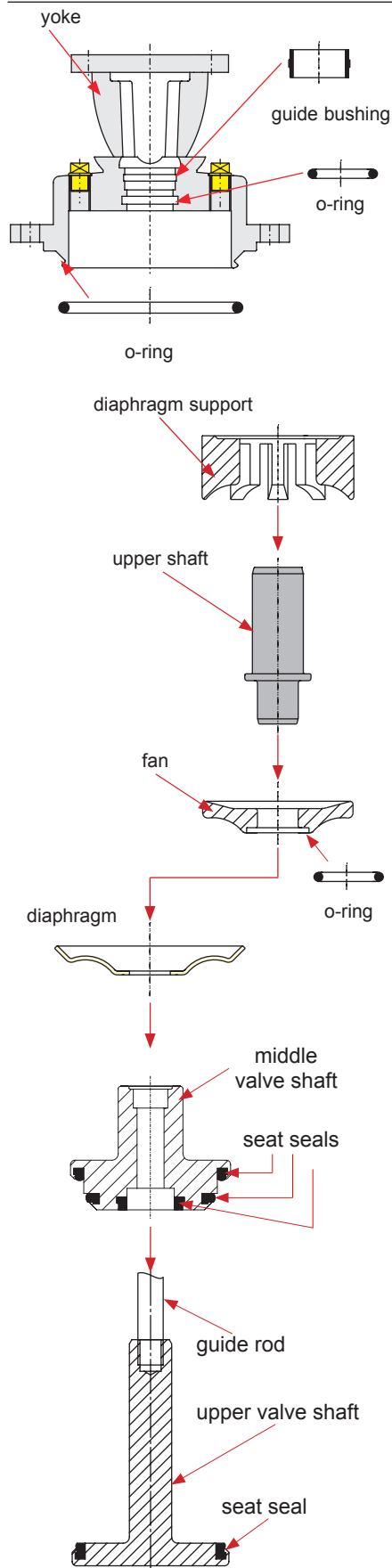
2. At first, undo the actuator screw (32). Unscrew the hex. nut (30) while holding up the centering washer (29), remove the centering washer.
3. Remove the hex. screws (22). Take off housing cover (21) and withdraw o-ring (20).
4. Pull the lower valve shaft (2) with guide rod to the bottom out of the housing. In case of stiffness, knock against the guide rod with a rubber mallet while holding up the lower valve shaft by hand. Remove the seat seal (3).
5. Design NC: Control actuator with air.  
Design NO: Shut off air.



**Do not touch movable valve parts!**  
**Risk of injury**

6. Remove hexagon screws (12) and lift the actuator off the yoke.
7. Remove hexagon screws (14) and lift yoke (11) to the top out of the housing.
8. Remove middle valve shaft (6), diaphragm (16), fan (17), diaphragm support (7) and upper valve shaft (8).
9. Remove o-ring (18) from the fan.
10. Remove seat seals (4, 5, 19) from the middle valve shaft.
11. Remove o-rings (15, 9) and guide bushing (10) from the yoke (11).

## 16. Service Instructions - Change-over Valve SDMSU4



### 16.3. Installation of seals and assembly of valve

Provide all seals with a thin layer of grease before their installation.

1. Insert the guide bushing (10) and the o-rings (15, 9) in the yoke (11)
2. Insert the seat seal in the lower (3) and middle (6) valve shaft. (see chapter 17. Installation of Seat Seal).
3. Insert the seat seal (19) in the middle valve shaft. Place the shaft centrally into the housing.
4. Install the upper shaft (8) with diaphragm (16), o-ring (18) and fan (17) in the middle shaft.
5. Place the diaphragm support (7) in the fan (17).  
! Toothing of fan and diaphragm support must interlock.
6. Put the yoke on the housing. The upper shaft must be guided smoothly through the guide bushing in the yoke. In case of stiffness, check the even fit of the guide bushing. Tighten the yoke with the screws (14) crosswise.
7. In case of design NC (FS), control the actuator with compressed air.



**Do not touch movable valve parts!**  
**Risk of injury.**

8. Fix the actuator (28) on the yoke by means of the hex. screws (12).
9. Shut off pneumatic air pressure.
10. Insert the lower shaft (2) with guide rod from the bottom into the housing.
11. Put on the centering washer (29). Apply a drop of a screw locker, e.g. type Loctite semi-solid on the thread of the guide rod. Screw on the hex nut (30) and tighten it with a torque of MD = 25 Nm. Hold up the centering washer during this process. Tighten the actuator screw.
12. Slightly grease the o-ring (20) and install it in the groove of the housing cover (21). Fasten the housing cover by means of the hex. nuts (22).

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## 16. Service Instructions - Change-over Valve SDMSU4

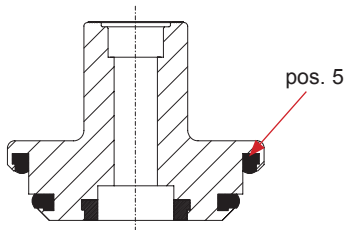
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13. Place the proximity switch holder (PSH) and fasten it.
14. Plug in proximity switches and fasten them. If necessary, re-adjust the proximity switches (see page 25 item 12.4.4. **Adjustment of proximity switch**).
15. Connect the leakage valves.
16. Connect the compressed air supply.

## 17. Installation of Seat Seal - SDMSU

### 17.1. Assembly tool for seat seal (5, 3)

#### middle valve shaft



#### Middle valve shaft (6):

By means of the assembly tool, the upper seat seal (5) can be installed in the upper valve shaft, only.

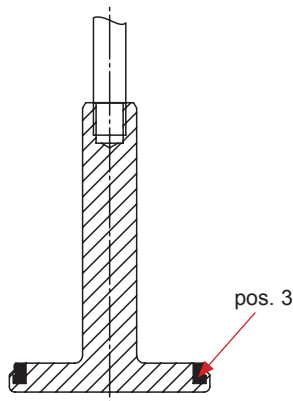
The following assembly tools are available:

Assembly tool SDM4			
DN	Inch	reference number	ID number
40	1,5"	000 51-13-227/17	H314440
50	2"	000 51-13-228/17	H314441
65	2,5"	000 51-13-229/17	H311447
	3"	000 51-13-230/17	H314442
80, 100	4"	000 51-13-225/17	H314443

#### Lower valve shaft (2):

To simplify the installation of the seal seal (3), the following assembly tools are available:

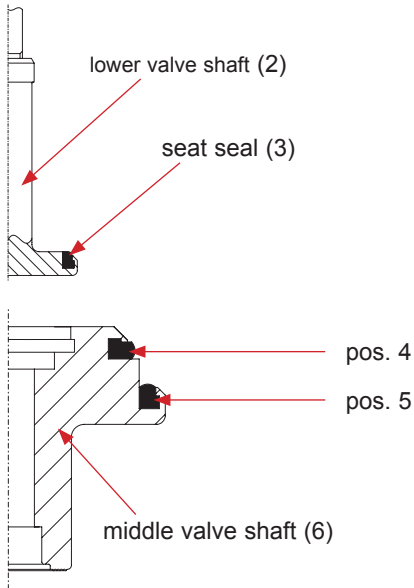
#### lower valve shaft



Assembly tool SW4			
DN	Inch	reference number	ID number
40	1,5"	000 51-13-111/17	H179466
50	2"	000 51-13-112/17	H179467
	2,5"	000 51-13-120/17	H179468
65	3"	000 51-13-113/17	H179469
	3"	000 51-13-121/17	H179470
80		000 51-13-114/17	H179471
100	4"	000 51-13-115/17	H179472



## 17. Installation of Seat Seal - SDMSU



- **Lower valve shaft (2):**  
The seat seal (3) can be installed by means of the assembly tool.

- **Middle valve shaft (6):**  
The seat seal (5) can be installed by means of the assembly tool, only. This seat seal must be mounted to the valve shaft, at first. Afterwards, install the seat seal (4) in the groove by hand - see **page 29, item 15.2.**

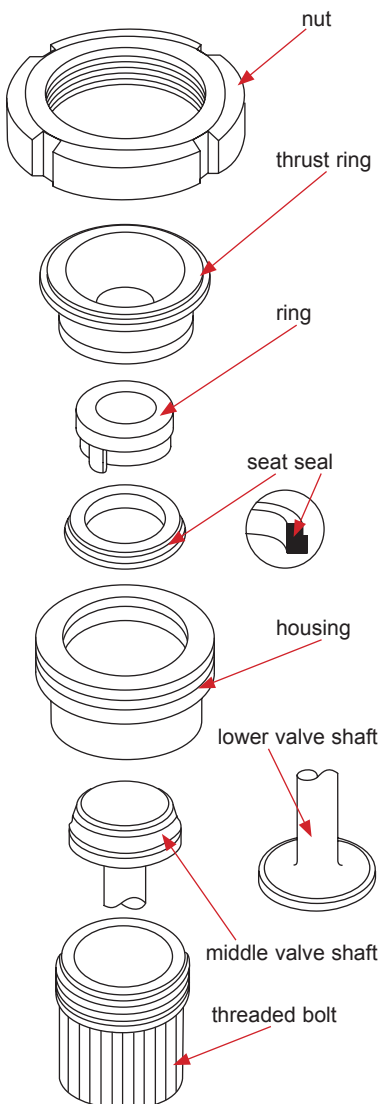
See to an even fit of the seal.

### 17.2. Installation of seat seal in middle and lower valve shaft

The required assembly tool is described in chapter 17.1.

The assembly tool consists of:

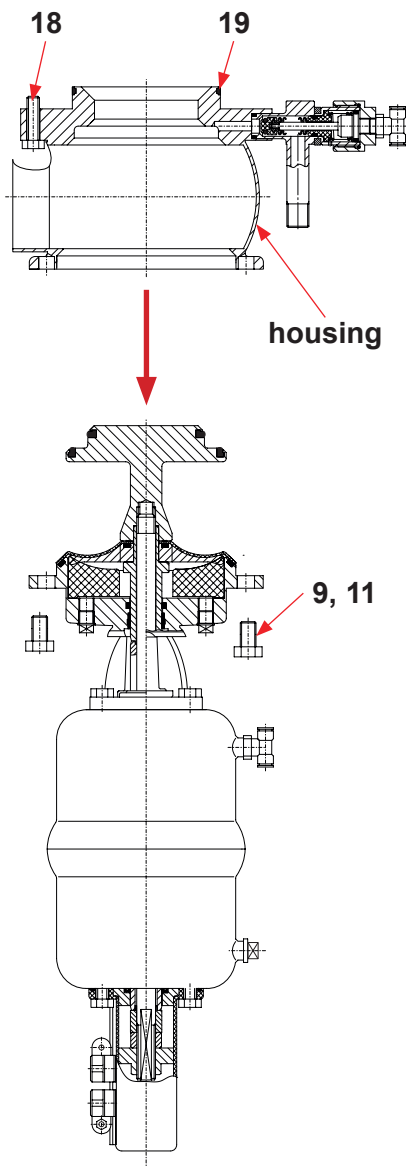
- nut
- thrust ring
- ring with vent nose
- housing
- threaded bolt



1. Insert valve shaft into the housing in such a manner that the seal groove is in the valve housing.
2. Mount the shaft in the housing by means of the threaded bolts. Clamp the housing in the vise.
3. Slightly grease the seat seal with APV food-grade grease. The receiving groove for the seat seal must not be greased. Place the seal on the ring with the vent nose until it stops.
4. Insert the ring with the installed seat seal into the housing and press it down until it stops.
5. Introduce the thrust ring into the housing. Screw on the nut and tighten it by a hook spanner until it stops.
6. Release the nut. Pull the ring and thrust ring out of the housing.
7. Take the housing out of the vise, remove the threaded bolts. Take the valve shaft out of the housing.

Check the even fit of the seat seal.

## 18. Service Instructions - Tank outlet valve SDTMS4



The reference numbers refer to the spare parts drawings  
**SDTMS4:**

DIN and Inch design **RN ATEX 01.054.75**

### 18.1. Dismantling from the line system DELTA SDTMS4



Before start of maintenance and assembly the operator must make sure that an explosive atmosphere does not exist (detection/measurement of potential concentration of hazardous substances). Alternatively, use spark-resistant tools!

1. Shut off the tank and line pressure and discharge lines if possible.
2. Remove cleaning connections.
3. Release separate connection at the lateral ports of the valve housing. Remove the flange screws (18) from the tank bottom flange.
4. Screw one flange screw in the threaded bore M8 of the housing flange. The complete valve is pressed out of the tank bottom flange during this process.
5. Carefully pull the complete valve out of the tank bottom flange.
6. Remove housing seal (19).

### 18.2. Dismantling of valve insert

1. NC version: Control actuator with air.



**Do not touch movable parts!**  
**Risk of injury.**

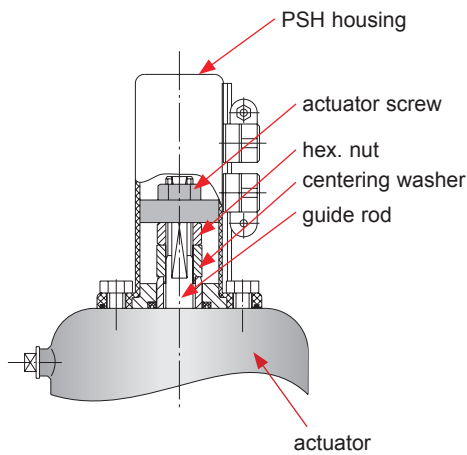
2. Remove hex. screws (9, 11) and lift the complete valve insert with actuator out of the housing.

**NC version: Shut off compressed air and remove compressed air connection.**

3. **Design with valve position indicator (PSH):**  
Remove the proximity switches. Detach the indicator housing (proximity switch holder; PSH) from the actuator.

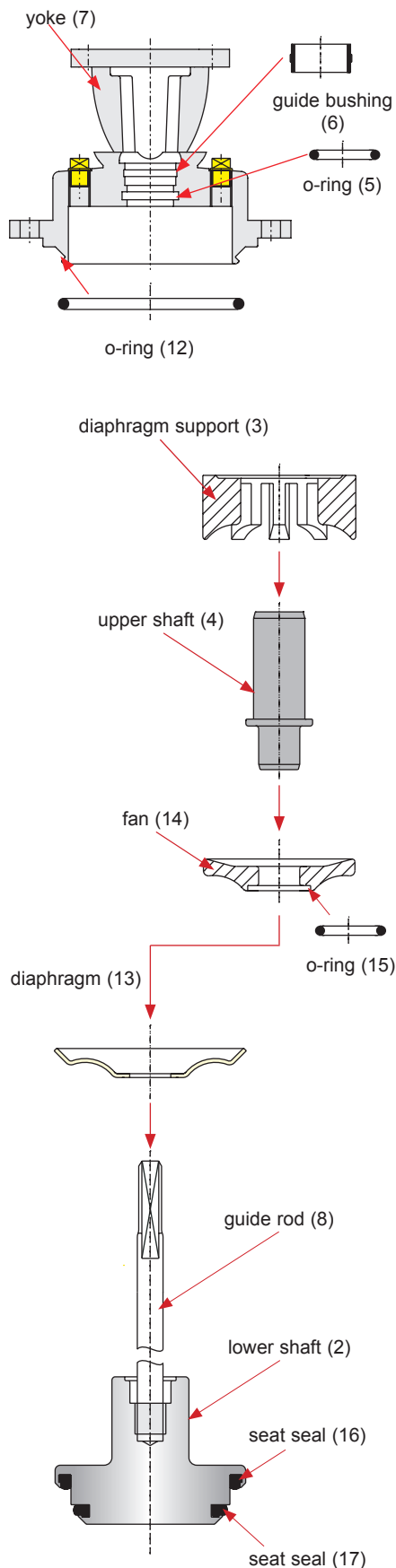
## 18. Service Instructions - Tank outlet valve SDTMS4

### 18.3. Dismantling of wear parts (product-wetted parts)



1. At first, unscrew the actuator screw (29). Release the hex. nut (27) while holding up the centering washer (27). Remove the centering washer.
2. Extract the shaft with guide rod (2), diaphragm (13), fan (14), upper shaft (4) and diaphragm support (3) from the actuator (25). Remove the seat seals (16, 17) and o-ring (15).
3. Remove the yoke (7) from the actuator (25).
  - Actuator can be maintained. See 14. Service Instructions - Actuator
4. Detach o-rings (12, 5) and guide bush (6) from the yoke (7).
5. Clean the valve housing, yoke, actuator and shaft with a low solution of a cleaning agent. Never use cleaning agents containing abrasive or polishing material.

## 18. Service Instructions - Tank outlet valve SDTMS4



### 18.4. Installation of seals and assembly of valve

All seals must be provided with a thin layer of grease before their installation.

1. Insert the guide bush (6) and o-ring (5) in the yoke (7). Insert the o-ring (12) in the groove of the yoke. Fasten the yoke (7) at the actuator (25).
2. Install the seat seals (16, 17) in the lower valve shaft (2). - See chapter 15. Installation of seat seal
3. Place the pre-assembled lower shaft with guide rod, diaphragm, fan with o-ring, upper shaft and diaphragm support through the yoke (7) and actuator (25).
  - The upper shaft must be guided through the guide bush into the yoke in smooth-running manner. In case of mechanical stiffness, check the right fit of the guide bush.
  - Toothing of fan and diaphragm support must interlock.
4. Place the centering washer (26). Apply a drop of a screw locker, e.g. type Loctite semi-solid, on the thread of the guide rod. Screw on the hex. nut (27) and fasten it with a **tightening torque of  $M_d = 25 \text{ Nm}$** . Hold up the centering washer during this process.

## 19. Trouble Shooting

Failure	Remedy
<b>Valve closed and pressure in upper housing</b>	
Valve is untight, leakage via the leakage valves	Replace seat seals. Check line pressure (max. 10 bar).
Leakage from the leakage bore in the area of the valve yoke	Check tightening torque of safety nut. Replace diaphragm and o-ring.
Leakage between housing and yoke flange	Replace diaphragm and o-ring.
Leakage at leakage valve	Replace o-ring (10). (see RN 01.054.67-1) Check cleaning supply line.
<b>Actuator</b>	
Air escapes from the actuator rod.	Replace v-seal (2) and o-ring (3) in the seal screw (1). (see RN 01.054.86)
Actuator does not work (air escapes permanently from the venting plug).	Replace complete actuator.
<b>Valve position indication</b>	
Feedback is missing.	Carry out fine adjustment.

If damaged seals are replaced, generally all seals should be renewed.  
For valve service actions, SPX FLOW supplies complete seal kits  
(see spare parts lists).

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## 20. Spare Parts Lists

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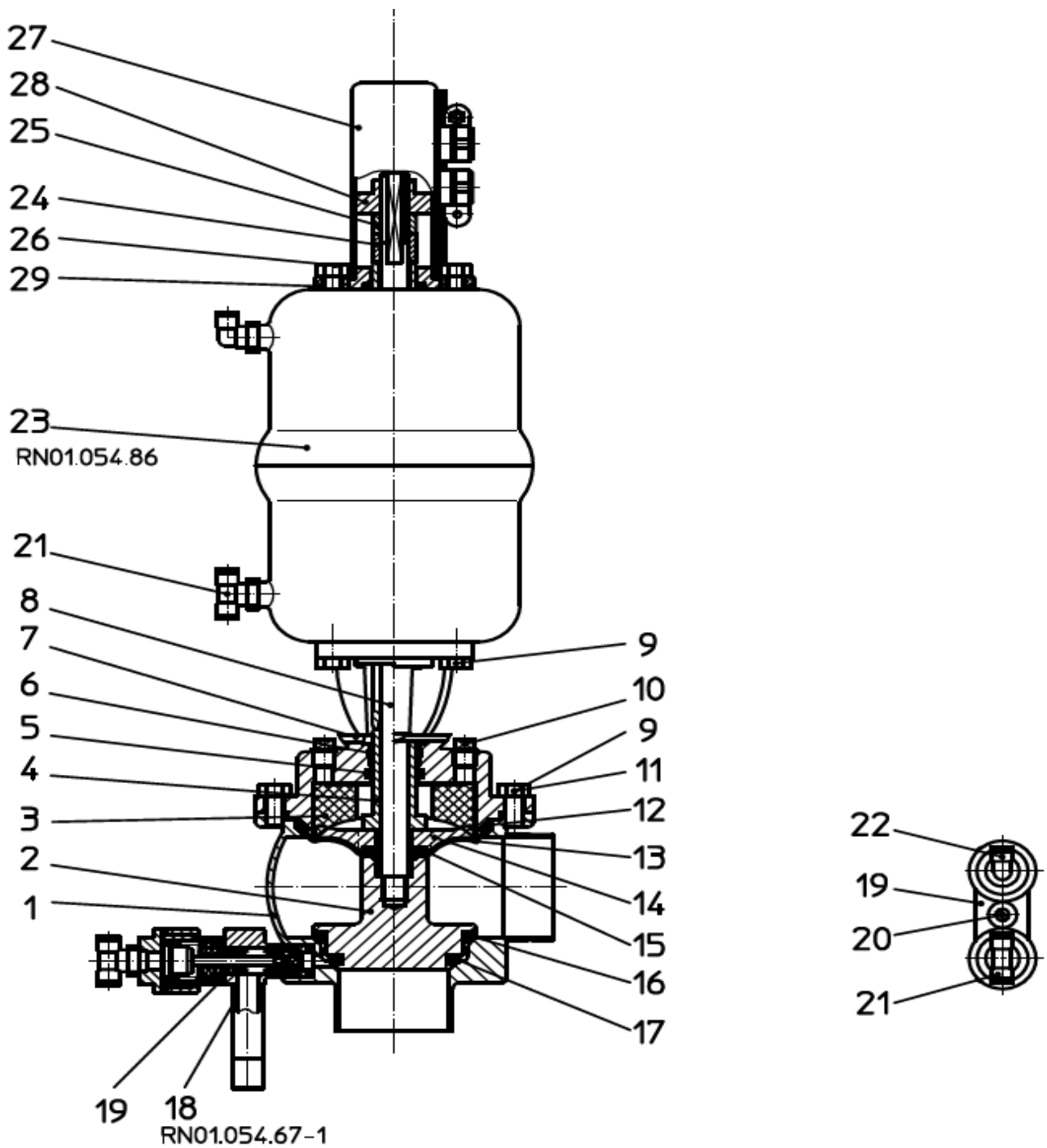
The reference numbers of the spare parts for the different valve designs and sizes are included in the attached spare parts drawings with corresponding lists.

Please indicate the following data to place an order for spare parts:

- number of required parts
- ID number (H.....)
- reference number
- designation.

- subject to change without notice -

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Datum:	20.01.17								
Name:	C.Keil								
Geprüft:									

Ersatzteilliste: spare parts list  
**Ventil SDMS4, SDEMS4 FS - Ex II -/2G IIB TX**  
**Valve SDMS4, SDEMS4 FS - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll**


**APV**  
 SPX FLOW  
 Germany

Blatt 1 von 9  
**RN ATEX 01.054.74**

Ersatzteilliste: spare parts list

**Ventil SDMS4, SDEMS4 FS - Ex II -/2G IIB TX**  
**Valve SDMS4, SDEMS4 FS - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll**

Datum:	20.01.17								
Name:	C.Keil								
Geprüft:									
Datum:									
Name:									
Geprüft:									
		Blatt		2		von		9	
<b>RN ATEX 01.054.74</b>									

									
-----------------------------------------------------------------------------------	--	--	--	--	--	--	--	--	--

pos. item	Menge quantity	Beschreibung description	Material	DN25	1"	DN40	1,5"	DN50	2"
				WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
	1	Gehäuse Housing SDM41 1+2S	1.4404	15-64-287/47 H311056	15-64-312/47 H208083	15-64-387/47 H174811	15-64-412/47 H175887	15-64-437/47 H174115	15-64-462/47 H175580
	1	Gehäuse Housing SDM42 1+2+3S	1.4404	15-65-287/47 H312043	15-65-312/47 H319361	15-65-387/47 H174812	15-65-412/47 H175888	15-65-437/47 H174813	15-65-462/47 H175753
	1	Gehäuse Housing SDEM41 1+2S	1.4404	15-74-280/47	15-74-305/47	15-74-380/47	15-74-405/47	15-74-430/47	15-74-455/47 H328410
1	1	Gehäuse Housing SDEM42 1+2+3S	1.4404	15-74-290/47	15-74-315/47 H321005	15-74-390/74	15-74-415/47	15-74-440/47	15-74-465/47
	1	Gehäuse Housing SDEM43 1+2+3S	1.4404	15-77-290/47	15-77-315/47	15-77-390/47	15-77-415/47 H320045	15-77-440/47 H200882	15-77-465/47 H200915
	1	Gehäuse Housing SDEM44 1+2+3+4S	1.4404	15-78-290/47 H311059	15-78-315/47 H319977	15-78-390/47 H200987	15-78-415/47 H179481	15-78-440/47 H179707	15-78-465/47 H175354
2	1	Schaft unten Lower valve shaft	1.4404	15-25-290/42 H311061	15-25-315/42 H208086	15-25-390/42 H174810	15-25-415/42 H175855	15-25-440/42 H174114	15-25-465/42 H175345
3	1	Membranunterstützung Fan support	Ryton R4-XT	08-48-511/93 H318533		08-48-512/93 H318534		08-48-512/93 H318534	
4	1	Schaft oben Upper valve shaft	1.4301	39-22-071/12 H318487		39-22-071/12 H318487		39-22-072/12 H318488	
5	1	O-Ring O-ring OR 20x3	EPDM FDA-konform	58-06-078/64 H121794		58-06-078/64 H121794			
6	1	Führungsbuchse Bushing	PTFE- 25% Kohle	08-01-178/23 H207154		08-01-178/23 H207154			
7	1	Laterne Yoke	1.4404	39-40-041/47 H318492		39-40-041/47 H318492		39-40-042/47 H318493	
8	1	Zugstange Guide rod	1.4305	39-23-129/12 H320621		39-23-129/12 H320621			
9		Skt. Schraube Hex. screw DIN EN 24017-A2-70	1.4301	65-01-081/15 4xM8x16 H78772		65-01-081/15 4xM8x16 H78772			
10	2	Entlüftungstopfen Venting plug ( G1/8"	PHT/BLACK	08-60-005/94 H175308		08-60-005/94 H175308			
11		Skt. Schraube Hex. screw DIN EN 24017-A2-70	1.4301	65-01-081/15 4xM8x16 H78772		65-01-081/15 4xM8x16 H78772			













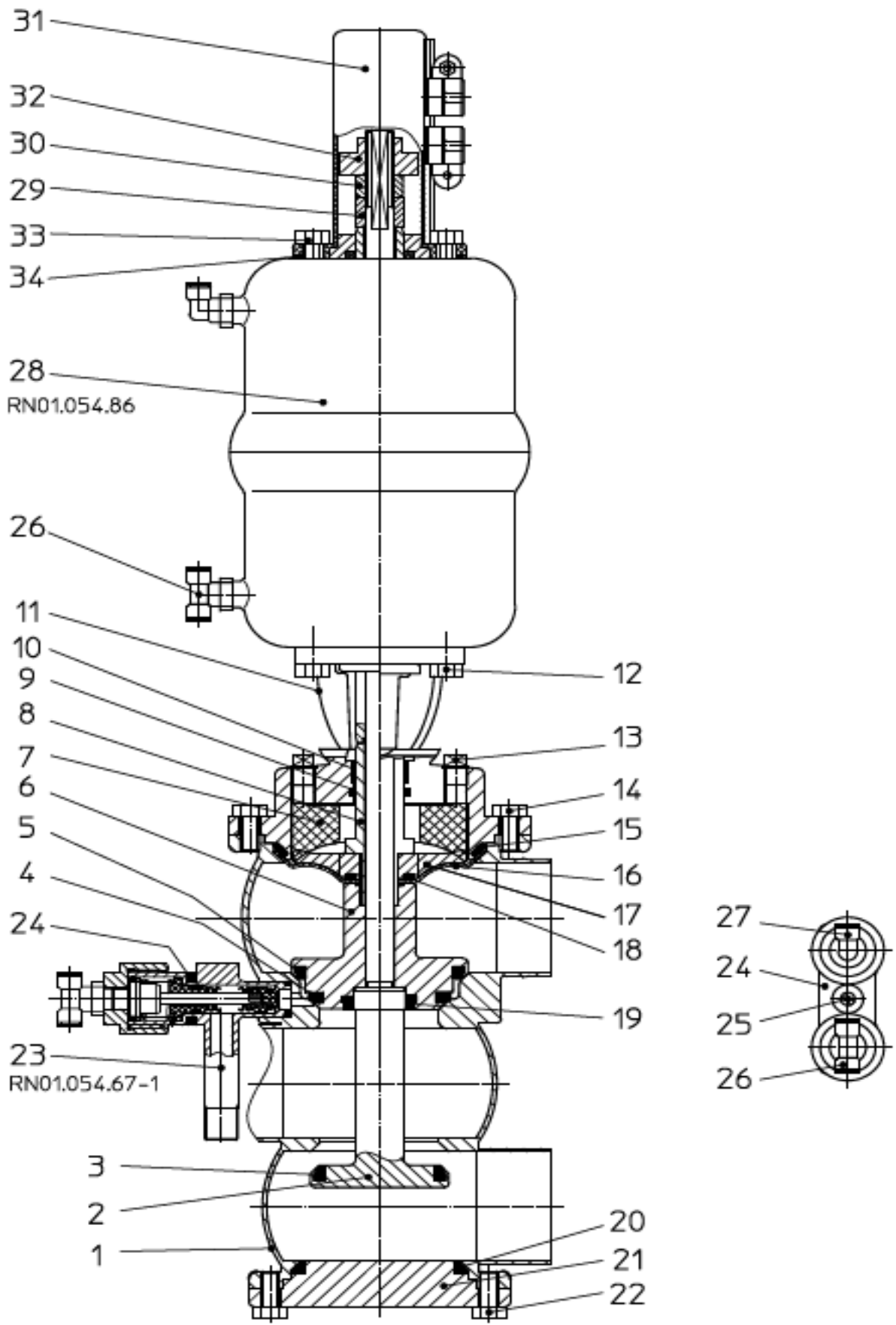








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Datum:	24.01.17										
Name:	C.Keil										
Geprüft:											

Ersatzteilliste: spare parts list  
**Ventil SDMSU4 FS VSM - Ex II -/2G IIB TX**  
**Valve SDMSU4 FS PSH - Ex II -/2G IIB TX**  
**DN 40-100 1,5-4 zoll / inch**



SPX FLOW  
Germany

Blatt 1 von 9

**RN ATEX 01.054.76**

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Ersatzteilliste: spare parts list

**Ventil SDMSU4 FS VSM - Ex II -/2G IIB TX**  
**Valve SDMSU4 FS PSH - Ex II -/2G IIB TX**  
**DN 40-100 1,5-4 Zoll / inch**

		Datum: 24.01.17								Blatt 2 von 9	
		Name: C. Keil								RN ATEX 01.054.76	
		Geprüft:									
		Datum:									
		Name:									
		Geprüft:									
1	1	Gehäuse Housing	SDMU45 1+2+3S	Material	DN25	1"	DN40	1,5"	DN50	2"	
				material	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	
				1.4404			15-68-390/47 H207720	15-68-415/47 H200860	15-68-440/47 H319300	15-68-465/47 H200861	
				1.4404			16-69-390/47	15-69-415/47 H200984	15-69-440/47 H311045	15-69-465/47 H200899	
2	1	Schaft unen Lower valve shaft	SDMU47 1+2+3+4S	Material	DN25	1"	DN40	1,5"	DN50	2"	
				1.4404				15-25-419/42 H333557		15-25-469/42 H330743	
3	1	Tellerdichtung Seat seal	EPDM FDA-konform	Material	DN25	1"	DN40	1,5"	DN50	2"	
				EPDM FDA-konform			58-33-393/93 H77467		58-33-443/93 H77491		
				FPM FDA-konform			58-33-393/73 H77466		58-33-443/73 H77490		
				HNBR FDA-konform			58-33-393/33 H166676		58-33-443/33 H166085		
				VMQ FDA-konform			58-33-393/13 H77465		58-33-443/13 H77489		
				EPDM FDA-konform			58-33-394/93 H77470		58-33-444/93 H77494		
4	1	Tellerdichtung Seat seal	FPM FDA-konform	Material	DN25	1"	DN40	1,5"	DN50	2"	
				FPM FDA-konform			58-33-394/73 H77469		58-33-444/73 H77493		
				HNBR FDA-konform			58-33-394/33 H172175		58-33-444/33 H165709		
				VMQ FDA-konform			58-33-394/13 H77468		58-33-444/13 H77492		
5	1	Tellerdichtung Seat seal	EPDM FDA-konform	Material	DN25	1"	DN40	1,5"	DN50	2"	
				EPDM FDA-konform			58-33-443/93 H77491		58-33-493/93 H77515		
				FPM FDA-konform			58-33-443/73 H77490		58-33-493/73 H77514		
				HNBR FDA-konform			58-33-443/33 H166085		58-33-493/33 H166678		

Ersatzteilliste: spare parts list

**Ventil SDMSU4 FS VSM - Ex II -/2G IIB TX**  
**Valve SDMSU4 FS PSH - Ex II -/2G IIB TX**  
**DN 40-100 1,5-4 Zoll / inch**

		Datum: 24.01.17								Blatt 3 von 9	
		Name: C. Keil								RN ATEX 01.054.76	
		Geprüft:									
		Datum:									
		Name:									
		Geprüft:									
5	1	Tellerdichtung Seat seal	Material VMQ FDA-konform	DN25	1"	DN40	1,5"	DN50	2"		
			material 1.4404	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.		
6	1	Schaft oben Upper valve shaft	1.4404				15-26-421/42 H200875		15-26-471/42 H200865		
7	1	Membranunterstützung Fan support	Ryton R4-XT				08-48-511/93 H318533		08-48-512/93 H318534		
8	1	Schaft MS4 oben Upper MS4 valve shaft	1.4301				39-22-071/12 H318487		39-22-072/12 H318488		
9	1	O-Ring O-ring	EPDM FDA-konform	OR 20x3			58-06-078/64 H121794				
10	1	Führungsbuchse Bushing	PTFE- 25% Kohle				08-01-178/23 H207154				
11	1	Laterne Yoke	1.4404				39-40-041/47 H318492		39-40-042/47 H318493		
12	1	Skt. Schraube Hex. screw	1.4301	DIN EN 24017-A2-70			65-01-081/15 4xM8x16 H78772				
13	2	Entlüftungstopfen Venting plug	PHT/BLACK	G1/8"			08-60-005/94 H175308				
14	1	Skt. Schraube Hex. screw	1.4301	DIN EN 24017-A2-70			65-01-081/15 4xM8x16 H78772				
15	1	O-Ring O-ring	EPDM FDA-konform				58-06-269/64 60x4 H324910		58-06-340/64 75x4,5 H324911		
16	1	Membrane Diaphragm	TfM FDA-konform				58-23-051/23 H318544		58-23-052/23 H318543		
17	1	Stern Star	1.4301				08-48-521/12 H320249		08-48-522/12 H319397		
18	1	O-Ring O-ring	EPDM FDA-konform				58-06-067/64 18x3 H320261		58-06-083/64 22x3,5 H319390		
19	1	Tellerdichtung Seat seal	EPDM FDA-konform				58-33-293/93 H77442				
	1	Tellerdichtung Seat seal	FPM FDA-konform				58-33-293/73 H77441				



Ersatzteilliste: spare parts list

**Ventil SDMSU4 FS VSM - Ex II -/2G IIB TX**  
**Valve SDMSU4 FS PSH - Ex II -/2G IIB TX**  
**DN 40-100 1,5-4 Zoll / inch**

pos. item	Menge quantity	Beschreibung description	Material	DN25 WS-Nr. ref.-no.	1" WS-Nr. ref.-no.	DN40 WS-Nr. ref.-no.	1,5" WS-Nr. ref.-no.	DN50 WS-Nr. ref.-no.	2" WS-Nr. ref.-no.	APV SPX FLOW Germany	
										Datum: Name: Geprüft:	24.01.17 C. Keil
19	1	Tellerdichtung Seat seal	HNBR FDA-konform					58-33-293/33 H170176			
	1	Tellerdichtung Seat seal	VMQ FDA-konform					58-33-293/13 H77440			
20	1	O-Ring	EPDM					58-06-300/64			
	1	O-Ring	FDA-konform					62,9-5,33 H204240			
	1	O-Ring	FPM					58-06-300/73			
	1	O-Ring	FDA-konform					62,9-5,33 H312008			
21	1	O-Ring	HNBR FDA-konform					58-06-300/33			
	1	Gehäusedeckel Housing cover	1.4404					39-01-138/47 H68670			
22	1	Skt. Schraube Hex. screw	1.4301					65-01-079/15 4xM8x14 H78768			
	2	Leckageventil Leakage valve	1.4404/EPDM					32-40-615/59 H207785			
23	2	Leckageventil Leakage valve	1.4404/HNBR					32-40-615/29 H314550			
	2	Leckageventil Leakage valve	1.4404/FPM					32-40-615/69 H314551			
	1	Lasche Bracket	1.4301					08-17-002/12 H173071			
	1	Zyl. Schraube Cyl. Screw	1.4301					65-05-123/13 M8x35 H175438			
26	T-Verschraubung Tee connector	Ms/vernickelt						08-63-370/93 H175301			
27	W-Verschraubung Angular union	Ms/vernickelt						08-63-350/93 H175300			
28	Steuerkopf Actuator	1.4301						15-32-051/17 H171379			
29	Zentrierscheibe Centering nut	1.4301						15-28-940/12 H170196			



Ersatzteilliste: spare parts list

**Ventil SDMSU4 FS VSM - Ex II -/2G IIB TX**  
**Valve SDMSU4 FS PSH - Ex II -/2G IIB TX**  
**DN 40-100 1,5-4 Zoll / inch**

Datum:	24.01.17
Name:	C. Keil
Geprüft:	
Datum:	
Name:	
Geprüft:	

Blatt 6 von 9	
RN ATEX 01.054.76	



pos. item	Menge quantity	Beschreibung description	Material	DN65	2,5"	3"	DN80	DN100	4"
				WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	
1	1	Gehäuse Housing	1.4404	15-68-490/47	15-68-515/47 H200862	15-68-515/47	15-68-540/47 H311666	15-68-640/47 H311302	WS-Nr. ref.-no.
	1	Gehäuse Housing	1.4404	15-69-490/47 H311303	15-69-515/47 H205554	15-69-515/47	15-69-540/47 H311092	15-69-640/47 H311294	
	1	Gehäuse Housing	1.4404						
	1	Gehäuse Housing	1.4404						
2	1	Schaft unen Lower valve shaft	1.4404						WS-Nr. ref.-no.
	1	Tellerdichtung Seat seal	EPDM FDA-konform						
3	1	Tellerdichtung Seat seal	FPM FDA-konform						WS-Nr. ref.-no.
	1	Tellerdichtung Seat seal	HNBR FDA-konform						
	1	Tellerdichtung Seat seal	VMQ FDA-konform						
	1	Tellerdichtung Seat seal	EPDM FDA-konform						
4	1	Tellerdichtung Seat seal	FPM FDA-konform						WS-Nr. ref.-no.
	1	Tellerdichtung Seat seal	HNBR FDA-konform						
	1	Tellerdichtung Seat seal	VMQ FDA-konform						
	1	Tellerdichtung Seat seal	EPDM FDA-konform						
5	1	Tellerdichtung Seat seal	FPM FDA-konform						WS-Nr. ref.-no.
	1	Tellerdichtung Seat seal	HNBR FDA-konform						
	1	Tellerdichtung Seat seal	VMQ FDA-konform						
	1	Tellerdichtung Seat seal	EPDM FDA-konform						

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Ersatzteilliste: spare parts list

**Ventil SDMSU4 FS VSM - Ex II -/2G IIB TX**  
**Valve SDMSU4 FS PSH - Ex II -/2G IIB TX**  
**DN 40-100 1,5-4 Zoll / inch**

		Datum: 24.01.17								Blatt 7 von 9	
		Name: C. Keil								RN ATEX 01.054.76	
		Geprüft:									
		Datum:									
		Name:									
		Geprüft:									
pos.	Menge	Beschreibung	Material	DN65	2,5"	3"	DN80	DN100	4"		
item	quantity	description	material	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.		
5	1	Tellerdichtung Seat seal	VMQ FDA-konform								
6	1	Schaft oben Upper valve shaft	1.4404								
7	1	Membranunterstützung Fan support	Ryton R4-XT	08-48-513/93 H318535				08-48-514/93 H318490			
8	1	Schaft MS4 oben Upper MS4 valve shaft	1.4301								
9	1	O-Ring O-ring	EPDM FDA-konform			58-06-078/64 H121794					
10	1	Führungsbuchse Bushing	PTFE- 25% Kohle			08-01-178/23 H207154					
11	1	Laterne Yoke	1.4404	39-40-043/47 H318494				39-40-044/47 H320578			
12	1	Skt. Schraube Hex. screw	1.4301	65-01-083/15 4xM8x20 H78776				65-01-083/15 4xM8x20 H78776			
13	2	Entlüftungstopfen Venting plug	PHT/BLACK			08-60-005/94 H175308					
14	1	Skt. Schraube Hex. screw	1.4301	65-01-129/15 4xM10x14 H78805				65-01-129/15 4xM10x14 H78805			
15	1	O-Ring O-ring	EPDM FDA-konform	58-06-488/64 95-4,5 H324912				58-06-581/64 120-4,5 H324913			
16	1	Membrane Diaphragm	TFM FDA-konform	58-23-053/23 H318542				58-23-054/23 H318541			
17	1	Stern Star	1.4301	08-48-523/12 H320316				08-48-524/12 H320332			
18	1	O-Ring O-ring	EPDM FDA-konform	58-06-098/64 24x3,5 H320270				58-06-140/64 31,1x3,5 H320271			
19	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-293/93 H77442				58-33-293/93 H77442			
	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-293/73 H77441				58-33-293/73 H77441			



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Ersatzteilliste: spare parts list

**Ventil SDMSU4 FS VSM - Ex II -/2G IIB TX**  
**Valve SDMSU4 FS PSH - Ex II -/2G IIB TX**  
**DN 40-100 1,5-4 Zoll / inch**

pos. item	Menge quantity	Beschreibung description	Material	DN65	2,5"	3"	DN80	DN100	Date: 24.01.17		Blatt 8 von 9
									WS-Nr. ref.-no.	WS-Nr. ref.-no.	
19	1	Tellerdichtung Seat seal	HNBR FDA-konform	58-33-293/33 H170176			58-33-293/33 H170176				RN ATEX 01.054.76
	1	Tellerdichtung Seat seal	VMQ FDA-konform	58-33-293/13 H77440			58-33-293/13 H77440				
	1	O-Ring	EPDM	58-06-345/64			58-06-495/64				
	1	O-Ring	FDA-konform	75,6x5,33 H204241			101x5,33 H204242				
	1	O-Ring	FPM	58-06-345/73			58-06-495/73 101x5,33				
20	1	O-Ring	HNBR FDA-konform	58-06-345/33 75,6x5,33 H310656			58-06-495/33 101x5,33 H310657				
	1	O-Ring	FDA-konform	75,6x5,33 H310656			101x5,33 H310657				
21	1	Gehäusedeckel Housing cover	1.4404	39-01-139/47 H107248			39-01-140/47 H68671				
22	1	Skt. Schraube Hex. screw	1.4301	65-01-081/15 4xMBx16 H78772			65-01-130/15 8xM10x16 H78806				
23	2	Leckageventil Leakage valve	1.4404/EPDM		32-40-615/59 H207785						
	2	Leckageventil Leakage valve	1.4404/HNBR		32-40-615/29 H314550						
	2	Leckageventil Leakage valve	1.4404/FPM		32-40-615/69 H314551						
	1	Lasche Bracket	1.4301		08-17-002/12 H173071						
	1	Zyl. Schraube Cyl. Screw	1.4301		65-05-126/13 H175438						
26	2	T-Verschraubung Tee connector	Ms/vernickelt		08-63-370/93 H175301						
27	1	W-Verschraubung Angular union	Ms/vernickelt		08-63-350/93 H175300						
28	1	Steuerkopf Actuator	1.4301		15-32-052/17 H171380						
29	1	Zentrierscheibe Centering nut	1.4301		15-28-940/12 H170196						

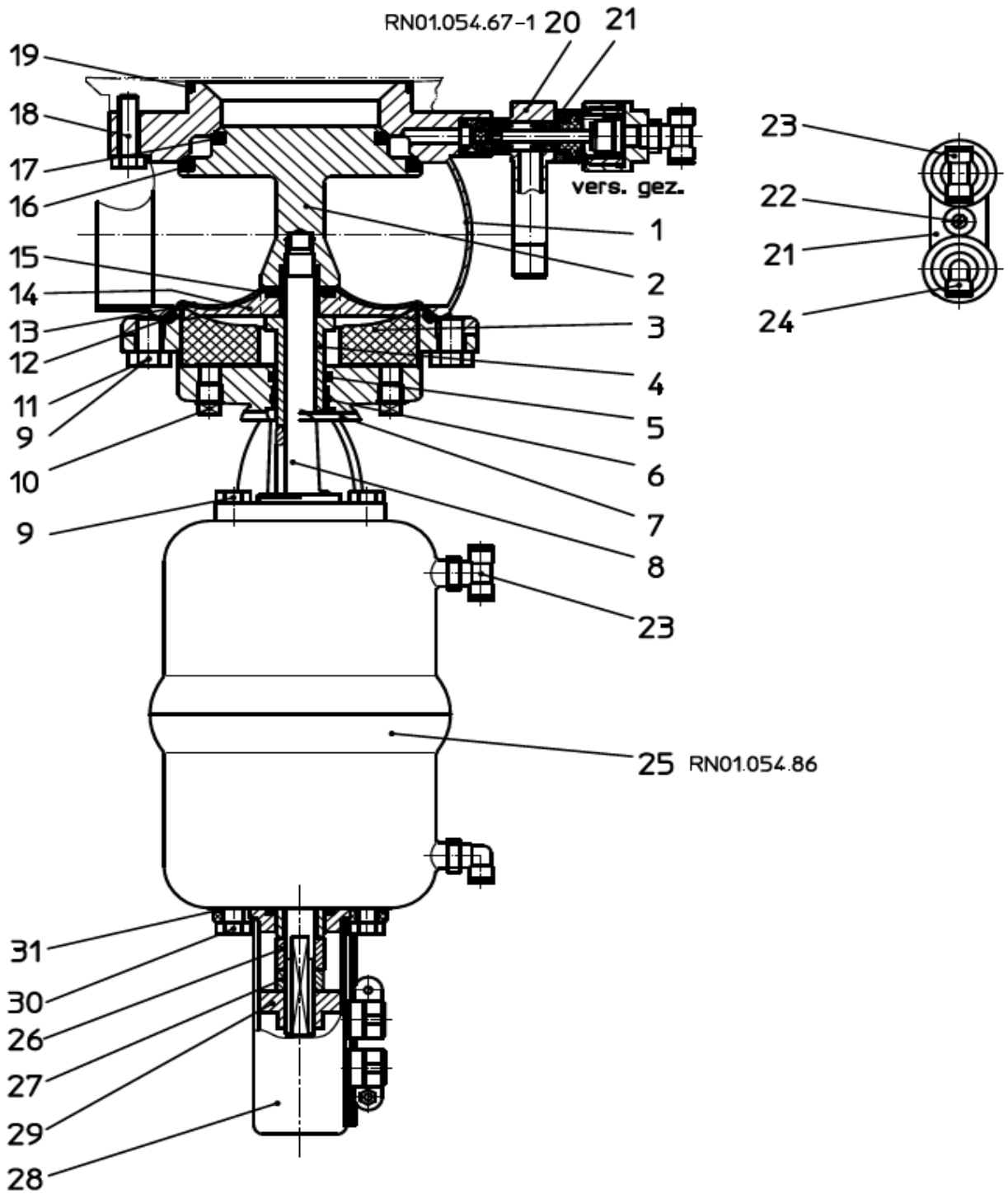









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Datum:	24.01.17								
Name:	C.Keil								
Geprüft:									

Ersatzteilliste: spare parts list

**Ventil SDTMS4 FS VSM - Ex II -/2G IIB TX**  
**Valve SDTMS4 FS PSH - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll / inch**



SPX FLOW  
Germany

Blatt 1 von 9

**RN ATEX 01.054.75**

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Ersatzteilliste: spare parts list

**Ventil SDTMS4 FS- VSM - Ex II -/2G IIB TX**  
**Valve SDTMS4 FS- PSH - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll / inch**

Datum:	24.01.17
Name:	C.Keil
Geprüft:	

Datum:	
Name:	
Geprüft:	

Blatt 2 von 9	
RN ATEX 01.054.75	

	
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pos. item	Menge quantity	Beschreibung description	Material	DN25	1"	DN40	1,5"	DN50	2"
1	1	Gehäuse Housing SDTM41 1+2S	1.4404	15-54-287/47	15-54-312/47	15-54-387/47	15-54-412/47 H208619	15-54-437/47	15-54-462/47
1	1	Gehäuse Housing SDTM42 1+2+3S	1.4404	15-55-287/47	15-55-312/47	15-55-387/47	15-55-412/47 H208620	15-55-437/47 H316712	15-55-462/47 H317155
2	1	Schaft unten Lower valve shaft	1.4404	15-25-290/42 H311061	15-25-315/42 H208086	15-25-390/42 H174810	15-25-415/42 H175855	15-25-440/42 H174114	15-25-465/42 H175345
3	1	Membranunterstützung Fan support	Ryton R4-XT		08-48-511/93 H318533			08-48-512/93 H318534	
4	1	Schaft oben Upper valve shaft	1.4301		39-22-071/12 H318487			39-22-072/12 H318488	
5	1	O-Ring O-ring	EPDM FDA-konform			58-06-078/64 H121794			
6	1	Führungsbuchse Bushing	PTFE- 25% Kohle			08-01-178/23 H207154			
7	1	Laterne Yoke	1.4404		39-40-041/47 H318492			39-40-042/47 H318493	
8	1	Zugstange Guide rod	1.4305			39-23-129/12 H320621			
9	1	Skt. Schraube Hex. screw	1.4301			65-01-081/15 4xM8x16 H78772			
10	2	Entlüftungstopfen Venting plug	PHT/BLACK			08-60-005/94 H175308			
11	1	Skt. Schraube Hex. screw	1.4301			65-01-081/15 4xM8x16 H78772			
12	1	O-Ring O-ring	EPDM FDA-konform	58-06-269/64 60x4 H324910				58-06-340/64 75x4,5 H324911	
13	1	Membrane Diaphragm	TFM FDA-konform	58-23-051/23 H318544				58-23-052/23 H318543	
14	1	Stern Star	1.4301		08-48-521/12 H320249			08-48-522/12 H319397	
15	1	O-Ring O-ring	EPDM FDA-konform	58-06-067/64 18x3 H320261				58-06-083/64 22x3,5 H319390	

Ersatzteilliste: spare parts list

**Ventil SDTMS4 FS- VSM - Ex II -/2G IIB TX**  
**Valve SDTMS4 FS- PSH - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll / inch**

		Datum: 24.01.17		1,5"		DN50		2"	
		Name: C-Keil							
		Geprüft:						Blatt 3 von 9	
		Datum:						RN ATEX 01.054.75	
		Name:							
		Geprüft:							
pos. item	Menge quantity	Beschreibung description	Material	DN25	1"	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
	1	Tellerdichtung Seat seal	EPDM FDA-konform		58-33-443/93 H77491		58-33-493/93 H77515		
16	1	Tellerdichtung Seat seal	FPM FDA-konform		58-33-443/73 H77490		58-33-493/73 H77514		
	1	Tellerdichtung Seat seal	HNBR FDA-konform		58-33-443/33 H166085		58-33-493/33 H166678		
	1	Tellerdichtung Seat seal	VMQ FDA-konform		58-33-443/13 H77489		58-33-493/13 H77513		
	1	Tellerdichtung Seat seal	EPDM FDA-konform		58-33-294/93 H77445		58-33-444/93 H77494		
17	1	Tellerdichtung Seat seal	FPM FDA-konform		58-33-294/73 H77444		58-33-444/73 H77493		
	1	Tellerdichtung Seat seal	HNBR FDA-konform		58-33-294/33 H172173		58-33-444/33 H165709		
	1	Tellerdichtung Seat seal	VMQ FDA-konform		58-33-294/13 H77443		58-33-444/13 H77492		
18	4	Skt. Schraube Hex. screw	1.4301				65-01-085/15 M8x28 H78778		
	1	Gehäusedichtung Housing seal	EPDM FDA-konform				58-33-392/93 H77464		58-33-492/93 H77512
19	1	Gehäusedichtung Housing seal	FPM FDA-konform				58-33-392/73 H77463		58-33-492/73 H77511
	1	Gehäusedichtung Housing seal	HNBR FDA-konform				58-33-392/33 H170018		58-33-492/33 H168759
	2	Leckageventil Leakage valve	1.4404/EPDM				32-40-615/59 H207785		
20	2	Leckageventil Leakage valve	1.4404/HNBR				32-40-615/29 H314550		
	2	Leckageventil Leakage valve	1.4404/FPM				32-40-615/69 H314551		
21	1	Lasche Bracket	1.4301				08-17-002/12 H173071		



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Ersatzteilliste: spare parts list

**Ventil SDTMS4 FS- VSM - Ex II -/2G IIB TX**  
**Valve SDTMS4 FS- PSH - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll / inch**

Datum:	24.01.17	Blatt	4	von	9
Name:	C-Keil	RN ATEX 01.054.75			
Geprüft:					
Datum:					
Name:					
Geprüft:					

pos. item	Menge quantity	Beschreibung description	Material	DN25	1"	DN40	1,5"	DN50	2"
				WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	
22	1	Zyl. Schraube Cyl. Screw DIN EN ISO 4762 M8x35-A2-70	1.4301			65-05-123/13 H175438			
23	2	T-Verschraubung Tee connector R32 G1/8	Ms/vernickelt			08-63-370/93 H175301			
24	1	W-Verschraubung Angular union R31 G1/8 ø6mm	Ms/vernickelt			08-63-350/93 H175300			
25	1	Steuerkopf Actuator	1.4301			15-32-051/17 H171379			
26	1	Zentrierscheibe Centering nut	1.4301			15-28-940/12 H170196			
27	1	Skt. Mutter Hex. Nut	1.4301			65-50-105/15 H112376			
28	1	VSM Gehäuse-SW4 Proximity switch holder housing SW4	Vestamid			15-33-932/93 H173931			
29	1	Schaltnocke Operating cam	1.4523			08-52-291/97 H173087			
30	4	Skt. Schraube Hex. screw DIN EN 24017- M8x16-A2-70	1.4301			65-01-081/15 H78772			
31	1	O-Ring O-ring OR 66x2	EPDM FDA-konform			58-06-297/83 H173930			





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Ersatzteilliste: spare parts list

**Ventil SDTMS4 FS- VSM - Ex II -/2G IIB TX**  
**Valve SDTMS4 FS- PSH - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll / inch**

Datum:	24.01.17
Name:	C.Keil
Geprüft:	

Datum:		Blatt	6	von	9
Name:		<b>RN ATEX 01.054.75</b>			
Geprüft:					



pos. item	Menge quantity	Beschreibung description	Material	DN65	2.5"	3"	DN80	DN100	4"
1	1	Gehäuse Housing SDTM41 1+2S	1.4404	WS-Nr. ref.-no. 15-54-487/47	WS-Nr. ref.-no. 15-54-512/47 H314398	WS-Nr. ref.-no. 15-54-562/47	WS-Nr. ref.-no. 15-54-537/47	WS-Nr. ref.-no. 15-54-637/47	WS-Nr. ref.-no. 15-54-662/47
1	1	Gehäuse Housing SDTM42 1+2+3S	1.4404	WS-Nr. ref.-no. 15-55-487/47 H316713	WS-Nr. ref.-no. 15-55-512/47 H320530	WS-Nr. ref.-no. 15-55-562/47	WS-Nr. ref.-no. 15-55-537/47	WS-Nr. ref.-no. 15-55-637/47 H327281	WS-Nr. ref.-no. 15-55-662/47
2	1	Schaft unten Lower valve shaft	1.4404	WS-Nr. ref.-no. 15-25-490/42 H176126	WS-Nr. ref.-no. 15-25-515/42 H176125	WS-Nr. ref.-no. 15-25-565/42 H203829	WS-Nr. ref.-no. 15-25-540/42 H202227	WS-Nr. ref.-no. 15-25-640/42 H207661	WS-Nr. ref.-no. 15-25-665/42 H208657
3	1	Membranunterstützung Fan support	Ryton R4-XT	08-48-513/93 H318535	08-48-513/93 H318535	08-48-514/93 H318536	08-48-514/93 H318536	08-48-514/93 H318536	08-48-514/93 H318536
4	1	Schaft oben Upper valve shaft	1.4301	39-22-073/12 H318489	39-22-073/12 H318489	39-22-074/12 H318490	39-22-074/12 H318490	39-22-074/12 H318490	39-22-074/12 H318490
5	1	O-Ring O-ring	EPDM FDA-konform	58-06-078/64 H121794	58-06-078/64 H121794	58-06-078/64 H121794	58-06-078/64 H121794	58-06-078/64 H121794	58-06-078/64 H121794
6	1	Führungsbuchse Bushing	PTFE- 25% Kohle	08-01-178/23 H207154	08-01-178/23 H207154	08-01-178/23 H207154	08-01-178/23 H207154	08-01-178/23 H207154	08-01-178/23 H207154
7	1	Laterne Yoke	1.4404	39-40-043/47 H318494	39-40-043/47 H318494	39-40-043/47 H318494	39-40-043/47 H318494	39-40-043/47 H318494	39-40-043/47 H318494
8	1	Zugstange Guide rod	1.4305	39-23-130/12 H320577	39-23-130/12 H320577	39-23-130/12 H320577	39-23-130/12 H320577	39-23-130/12 H320577	39-23-130/12 H320577
9	2	Skt. Schraube Hex. screw	1.4301	65-01-083/15 4xM8x20 H78776	65-01-083/15 4xM8x20 H78776	65-01-083/15 4xM8x20 H78776	65-01-083/15 4xM8x20 H78776	65-01-083/15 4xM8x20 H78776	65-01-083/15 4xM8x20 H78776
10	2	Entlüftungstopfen Venting plug	PHT/BLACK	08-60-005/94 H175308	08-60-005/94 H175308	08-60-005/94 H175308	08-60-005/94 H175308	08-60-005/94 H175308	08-60-005/94 H175308
11	1	Skt. Schraube Hex. screw	1.4301	65-01-130/15 8xM10x16 H78806	65-01-130/15 8xM10x16 H78806	65-01-130/15 8xM10x16 H78806	65-01-130/15 8xM10x16 H78806	65-01-130/15 8xM10x16 H78806	65-01-130/15 8xM10x16 H78806
12	1	O-Ring O-ring	EPDM FDA-konform	58-06-488/64 95x4,5 H324912	58-06-488/64 95x4,5 H324912	58-06-488/64 95x4,5 H324912	58-06-488/64 95x4,5 H324912	58-06-488/64 95x4,5 H324912	58-06-488/64 95x4,5 H324912
13	1	Membrane Diaphragm	TFM FDA-konform	58-23-053/23 H318542	58-23-053/23 H318542	58-23-053/23 H318542	58-23-053/23 H318542	58-23-053/23 H318542	58-23-053/23 H318542
14	1	Stern Star	1.4301	08-48-523/12 H320316	08-48-523/12 H320316	08-48-523/12 H320316	08-48-523/12 H320316	08-48-523/12 H320316	08-48-523/12 H320316
15	1	O-Ring O-ring	EPDM FDA-konform	58-06-098/64 24x3,5 H320270	58-06-098/64 24x3,5 H320270	58-06-098/64 24x3,5 H320270	58-06-098/64 24x3,5 H320270	58-06-140/64 31,1x3,5 H320271	58-06-140/64 31,1x3,5 H320271



**Ersatzteilliste: spare parts list**  
**Ventil SDTMS4 FS- VSM - Ex II -/2G IIB TX**  
**Valve SDTMS4 FS- PSH - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll / inch**



Blatt 7 von 9  
**RN ATEX 01.054.75**

pos. item	Menge quantity	Beschreibung description	Material	DN65	2.5"	3"	DN80	DN100	4"
				WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-543/93 H77546		58-33-643/93 H77586			
16	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-543/73 H77545		58-33-643/73 H77585			
	1	Tellerdichtung Seat seal	HNBR FDA-konform	58-33-543/33 H166681		58-33-643/33 H166682			
	1	Tellerdichtung Seat seal	VMQ FDA-konform	58-33-543/13 H77544		58-33-643/13 H77584			
	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-494/93 H77518	58-33-569/93 H77564	58-33-544/93 H77549			
17	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-494/73 H77517	58-33-569/73 H77563	58-33-544/73 H77548			
	1	Tellerdichtung Seat seal	HNBR FDA-konform	58-33-494/33 H172178	58-33-569/33 H176688	58-33-544/33 H172180			
	1	Tellerdichtung Seat seal	VMQ FDA-konform	58-33-494/13 H77516	58-33-569/13 H77562	58-33-544/13 H77547			
18	4	Skt. Schraube Hex. screw	1.4301		65-01-136/13 M10x30	H78814			
	1	Gehäusedichtung Housing seal	EPDM FDA-konform	58-33-542/93 H77543		58-33-692/93 H77608			
19	1	Gehäusedichtung Housing seal	FPM FDA-konform	58-33-542/73 H77542		58-33-692/73 H77607			
	1	Gehäusedichtung Housing seal	HNBR FDA-konform	58-33-542/33 H170075		58-33-692/33 H172125			
	2	Leckageventil Leakage valve	1.4404/EPDM		32-40-615/59 H207785				
20	2	Leckageventil Leakage valve	1.4404/HNBR		32-40-615/29 H314550				
	2	Leckageventil Leakage valve	1.4404/FPM		32-40-615/69 H314551				
21	1	Lasche Bracket	1.4301		08-17-002/12 H173071				

Ersatzteilliste: spare parts list

**Ventil SDTMS4 FS- VSM - Ex II -/2G IIB TX**  
**Valve SDTMS4 FS- PSH - Ex II -/2G IIB TX**  
**DN 25-100 1-4 Zoll / inch**

Datum:	24.01.17						
Name:	C. Keil						
Datum:						Blatt 8	von 9
Name:						<b>RN ATEX 01.054.75</b>	
Geprüft:							

pos. item	Menge quantity	Beschreibung description	Material	DN65	2.5"	3"	DN80	DN100	4"
22	1	Zyl. Schraube Cyl. Screw DIN EN ISO 4762 M8x35-A2-70	1.4301						
23	2	T-Verschraubung Tee connector R32 G1/8	Ms/vernickelt						
24	1	W-Verschraubung Angular union R31 G1/8 ø6mm	Ms/vernickelt						
25	1	Steuerkopf Actuator	1.4301						
26	1	Zentrierscheibe Centering nut	1.4301						
27	1	Skt. Mutter Hex. Nut DIN EN ISO 10511-M12-A2	1.4301						
28	1	VSM Gehäuse-SW4 Proximity switch holder housing SW4	Vestamid						
29	1	Schaltnocke Operating cam	1.4523						
30	4	Skt. Schraube Hex. screw DIN EN 24017- M8x16-A2-70	1.4301						
31	1	O-Ring O-ring OR 66x2	EPDM FDA-konform						





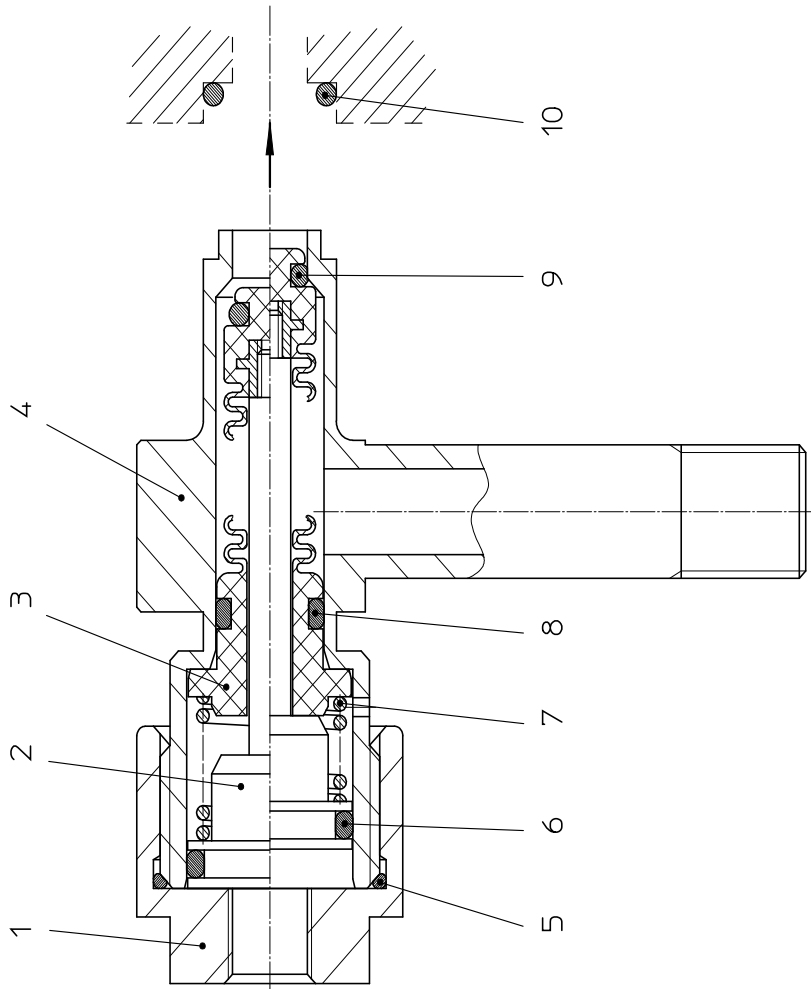


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Ersatzteilliste: spare parts list

**Leckageventil SDMF4**  
**Leakage valve SDMF4**

pos. item		Menge quantity	Beschreibung description	Material material	WS-Nr. ref.-no.	pos. item	Menge quantity	Beschreibung description	Material material	WS-Nr. ref.-no.
			Leckageventil kpl. mit EPDM Leakage valve cpl. with EPDM	1.4404/EPDM	32-40-615/59 H207785	10	1	O-Ring 12 x 2,5 O-ring 12 x 2,5	HNBR FDA-Konform	58-06-045/33 H314556
			Leckageventil kpl. mit HNBR Leakage valve cpl. with HNBR	1.4404/HNBR	32-40-615/29 H314550		1	O-Ring 12 x 2,5 O-ring 12 x 2,5	EPDM FDA-Konform	58-06-045/64 H207795
			Leckageventil kpl. mit FPM Leakage valve cpl. with FPM	1.4404/FPM	32-40-615/69 H314551		1	O-Ring 12 x 2,5 O-ring 12 x 2,5	FPM FDA-Konform	58-06-045/73 H314557
1	1		Deckel Leckageventil Cover for leakage valve	1.4301	21-20-002/17 H172511					
2	1		Kolben Piston	1.4404	15-29-010/42 H207786					
3	1		Balgeinheit SDMF4 Leckageventil Bellow unit SDMF4 leakage valve	TFM	42-06-010/92 H207783					
4	1		Gehäuse Leckageventil Housing leakage valve	1.4404	21-08-170/47 H207784					
5	1		O-Ring 22,0 x 2,5 O-ring 22,0 x 2,5	EPDM FDA-Konform	58-06-091/64 H314280					
6	1		O-Ring 15,3 x 2,4 O-ring 15,3 x 2,4	EPDM FDA-Konform	58-06-052/64 H206007					
7	1		Feder leckageventil Spring leakage valve	1.4310	60-07-002/13 H173068					
8	1		O-Ring 9 x 2,5 O-ring 9 x 2,5	HNBR FDA-Konform	58-06-035/33 H314552					
	1		O-Ring 9 x 2,5 O-ring 9 x 2,5	EPDM FDA-Konform	58-06-035/64 H207794					
	1		O-Ring 9 x 2,5 O-ring 9 x 2,5	FPM FDA-Konform	58-06-035/73 H314553					
9	1		O-Ring 5 x 2,5 O-ring 5 x 2,5	HNBR FDA-Konform	58-06-008/33 H314554					
	1		O-Ring 5 x 2,5 O-ring 5 x 2,5	EPDM FDA-Konform	58-06-008/64 H76897					
	1		O-Ring 5 x 2,5 O-ring 5 x 2,5	FPM FDA-Konform	58-06-008/73 H314555					



Datum:	07/11
Name:	Trytko
Geprüft:	Schulz
Datum:	
Name:	
Geprüft:	

Blatt	1	von	1
<b>RN 01.054.67-1</b>			





Ersatzteilliste: spare parts list

**Steuerkopf SW4  
Actuator SW4**

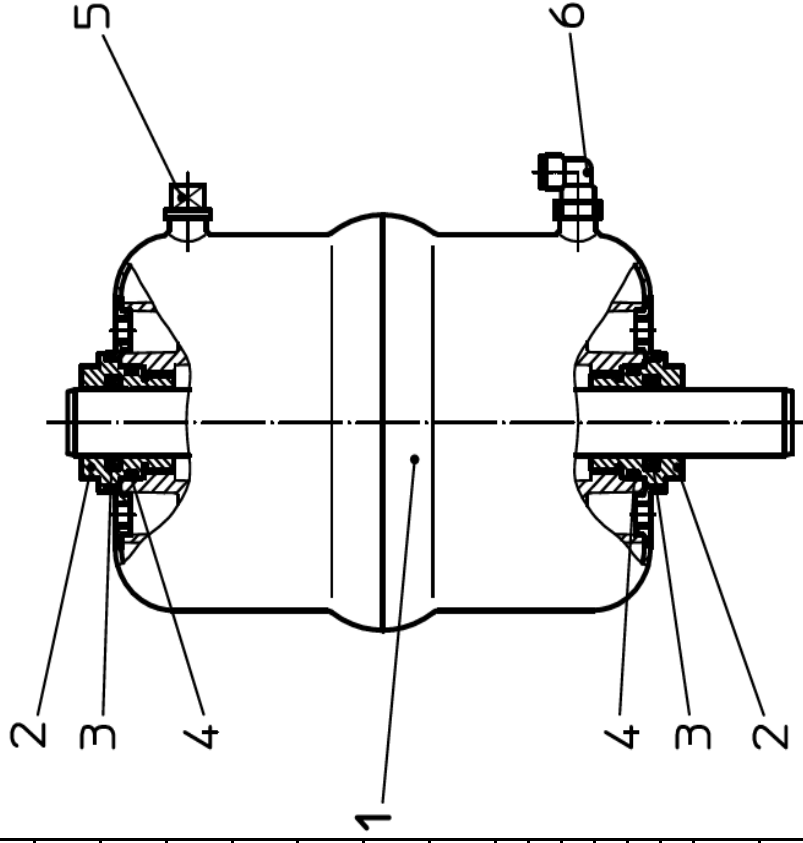
Datum:	11/08	12/09	27.01.15	10.7.17
Name:	Peters	Peters	Trytko	Keil
Geprüft:				



Datum:	Blatt	1	von	1
Name:				
Geprüft:				

**RN 01.054.86**

pos.	Menge quantity	Beschreibung description	Ø 74	Ø 110	Ø 165
item			WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
1	1	Steuerkopf kpl. Feder/Luft - matt glänzend Actuator cpl. Spring/air satin finish	15-32-050/17 H171378	15-32-051/17 H171379	15-32-052/17 H171380
	1	Steuerkopf kpl. Feder/Luft - 3A-blank Actuator cpl. Spring/air 3A bright	3A0 15-32-059/13 H208693	3A0 15-32-060/13 H173538	3A0 15-32-061/13 H173524
	1	Steuerkopf kpl. Luft/Luft - matt glänzend Actuator cpl. air/air satin finish	15-32-085/17 H209592	15-32-086/17 H209203	15-32-087/17 H208733
	1	Steuerkopf kpl. Luft/Luft - 3A-blank Actuator cpl. air/air 3A bright	3A0 15-32-057/13 H208690	3A0 15-32-065/13 H208772	3A0 15-32-066/13 H208773
2	2	Schraube Dichtung Seal screw		15-28-840/93 H170200	
3	2	V-Dichtung V-seal		58-32-010/83 H171060	
4	2	O-Ring O-ring		58-06-124/83 H171059	
5	1	Entlüftungstopfen G-1/8" Venting Plug G-1/8"		08-60-005/93 H16218	
6	1	W-Verschraubung G-1/8" 6Ømm schwenkbar W-Union G-1/8" / 6Ømm slewable		08-60-750/93 H208825	
6	1	W-Verschraubung G-1/8"1/4" OD 6Ømm sch. W-Union G-1/8" / 1/4" OD 6Ømm slewable		08-60-811/93 H312732	





# APV DELTA SDMS4 DN 25-100, 1"-4"



DOUBLE SEAL VALVE  
WITH DIAPHRAGM AND "FAN SUPPORT"

FOR SPECIFIC ATEX-APPLICATIONS

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