APV®
AN SPX BRAND

Operating Manual

DELTA SVS1F DN 125-250

Butterfly Valve

Read and understand this manual prior to operating or servicing this product.

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Declaration of Conformity for Valves and Valve Manifolds

APV Rosista GmbH, Zechenstr. 49, D-59425 Unna-Königsborn
as manufacturer with sole responsibility declares that the

double seat valves of the series D2, SD4, SDT4, SDM4, SWcip4, DSV, DA3, DE3, DEU3, DET3, DKR2, DKRT2, DKRH2
in the nominal diameters DN 25 - 150, 1" – 6" and 1 Sh5 - 6 Sh5

butterfly valves of the series SV1 and SVS 1 F
in the nominal diameters DN 25 - 100, DN 125 - 250 and 1" – 4"

ball cocks of the series KH, KHV
in the nominal diameters DN 15 - 100

single seat, diaphragm and spring loaded valves of the series S2, SW4, SWmini4, SWT4, M3, MF3, M4, MF4, MP4, MS4, AP1, APT1, CPV, RG4, RGM4, RGE4, RGEM4, PR2, PR3, PR4, SI2, UF3, VRA,VRAH
in the nominal diameters DN 10 - 150, 1/2" – 4" and 1 Sh5 - 6 Sh5

and the valve manifolds installed thereof

meet the requirements of the Directives 89/392/EEC (amendment 93/44/EEC), replaced by 98/37/EC and GSG - 9.GSGV.

For official inspections, APV Rosista GmbH presents a technical documentation according to appendix V of the Machinery Directive, this documentation consisting of documents of the development and construction, description of measures taken to meet the conformity and to correspond with the basic requirements on safety and health, incl. an analysis of the remaining risks as well as an operating manual with safety instructions.

The conformity of the valves and valve manifolds is guaranteed.

D-59425 Unna-Königsborn, June 04, 2008
APV Rosista GmbH

ppa. Baumbach

Manager Research and Development

UK

Table of Content

1. General Terms

This operating manual has to be read and observed by the responsible operating and maintenance personnel.

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

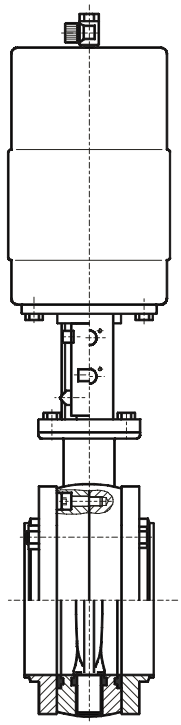
Descriptions and data given herein are subject to technical changes.

2. Safety Instructions

DANGER!

- Before any maintenance of the valve, depressurize the line system and discharge it if possible.
- Do not reach into the open valve or into the yoke!
  Risk of bruising by movable parts.
- Valve in dismantled state: risk of injury by sudden valve actuation!
- Observe the following service instructions to ensure safe maintenance of the valve.
- The welded housing of the actuator is under spring load - **do not attempt to open it by force!**

3. Mode of Operation



Use of high-quality stainless steel and seal material to the specified requirements, the butterfly valve range DELTA SVS1F is applicable in the food and beverage industries as well as in the chemical and pharmaceutical industries.

The function of the butterfly valve is to shut off line sections.

Valves of the series DELTA SVS1F can either be operated manually or remote controlled via a pneumatic actuator. Manual operation and pneumatic actuator including add-on pieces are inter-changeable.

Actuation by pneumatic actuator.
Reset by spring force into the limit position **closed**.

Extension of operating time of actuated valves by pneumatic air throttle or adjusting screw in the control unit CU3 to optimize the flow behaviour.

The butterfly valve can also be used in vacuum systems.

The valve opens and closes by turning the disc by 90°. Manual actuation provides for locking of the disc in partly open position.

Smooth valve passage without diversion of line flow.

The opening diameter complies with the size of the inner line diameter.

Cleaning of the product wetted valve surface is performed during cleaning of the pipeline.

4. Auxiliary Equipment

Valve position indication - valve with pneumatic actuator:
Proximity switches to signal the limit position of the valve disc can be installed in the yoke area if required.

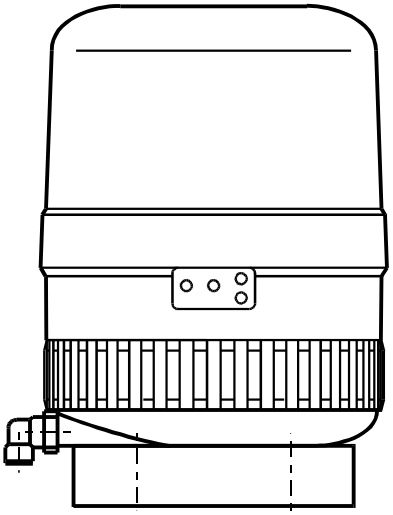
We recommend to use our APV standard proximity switches.
Type: three-wire proximity switch (ref.-No. 08-60-011/93)
Operating distance: 4mm / diameter: 11mm / length: 30 mm.

Feedback complete with support and proximity switch (ref.-No. 15-33-023/93) for a limit position.

Using a valve position indicator other than APV, we cannot accept any liability for faulty function.

4. Auxiliary Equipment

CU3 control unit with adapter



Valve position indication - valve with manual actuation:
Specific manual actuations with feedback feature are available:
Feedback of both disc positions
open and **closed** are possible.

CONTROL UNIT
Units with feedback switch and solenoid valve for the pneumatic control of the valve for assembly on the actuator are also available in fieldbus technology.

The assembly of a CU3 control unit on a pneumatic actuator is possible.

The following different designs are available:

designation	ID :
CU 31 Direct Connect	L 804 629
CU 21 Profibus	L 804 437
CU 31 Device Net	L 804 611
CU 31 AS - Interface	L 804 701

- An adapter is required to install the control unit on the SVS1F valve.

designation	ID :
CU 2 adapter SVS1F / DKR2	L 801 195

- To install the control unit on a butterfly valve a special pneumatic actuator is needed. The standard actuator must be replaced.

actuator for control unit	
DN 125 - 150	ref.-No.: 000 - 15 - 37 - 106/17
DN 200 - 250	ref.-No.: 000 - 15 - 37 - 103/17

5. Installation

In normal installation position, the actuator is vertically to the top. Depending on the requirements of the respective application, the installation position is optional.

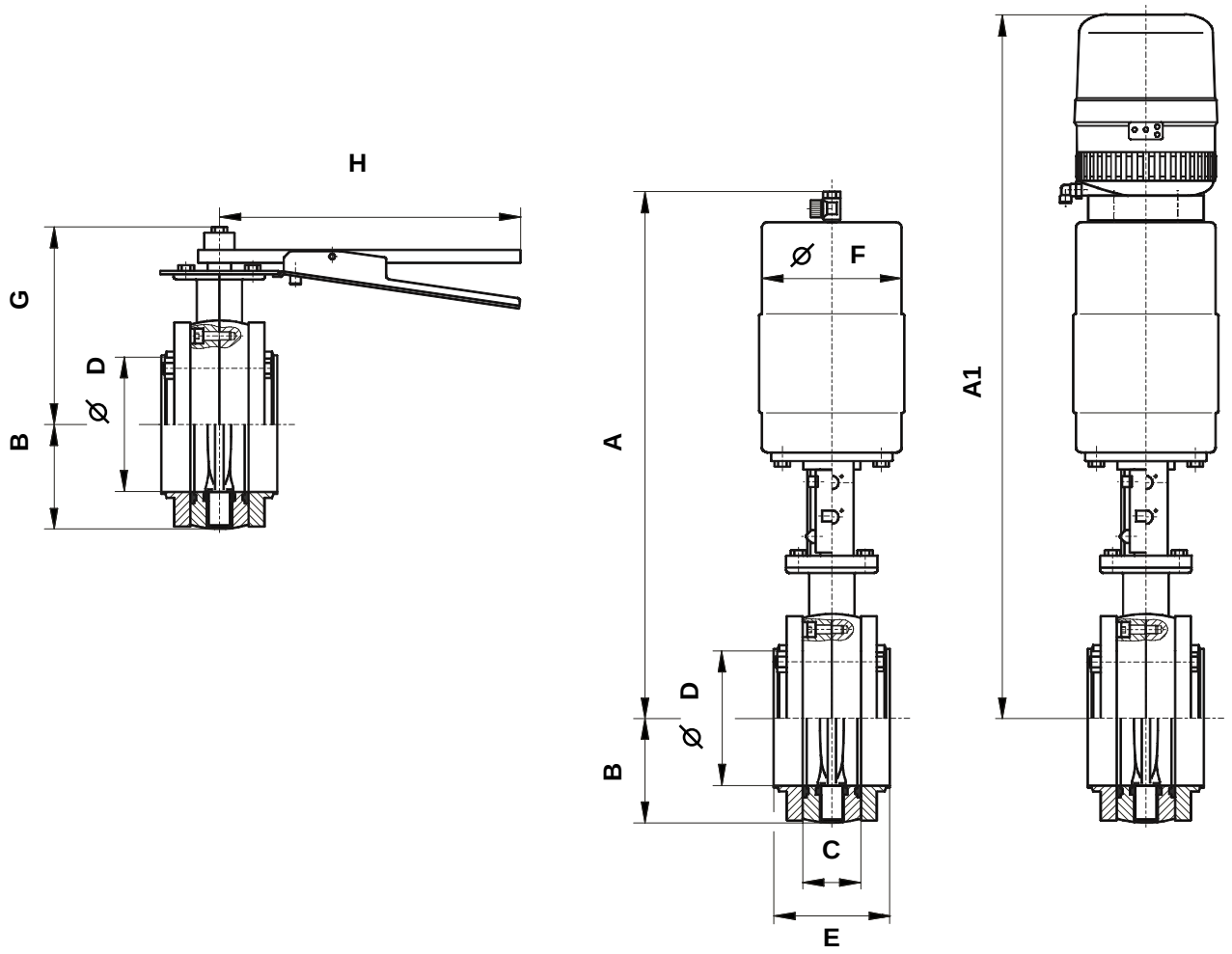
Valve installation can be undertaken between FG 1 flanges and flanges according to DIN.

Attention : Observe welding instructions!

5.1 Welding Instructions

- Welding shall only be carried out by certified welders (EN 287 - 1). (seam quality EN 25817 ,,B").
- The welding of the mating flanges must be undertaken in such a way that deformation strain cannot arise.
- TIG orbital welding is the most appropriate method!
- Before welding, all sensitive parts must be removed!
  Dismantle the valve core with seals, etc. from the mating flanges.
- After welding of the mating flanges and after work at the pipelines, the corresponding parts of the installation and 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 or be carried over to other parts of the installation.
- Any damage resulting from the non-observance of these welding instructions is not subject to our guarantee.

6. Dimensions / Weights



dimensions in mm									
DN	**A**	**A1**	**B**	**C**	**Ø D**	**E**	**Ø F**	**G**	**H**
125	491	625	97	54	125	108	130	181	280
150	505	640	110	54	150	108	130	194	280
200	573	705	138	65	200	107	180	222	310
250	602	734	166	65	250	107	180	250	310

weights in kg		
DN	with manual operation	with actuator
125	12,9	20,9
150	15,6	23,6
200	24,6	39,6
250	38,2	53,2

7. Technical Data

- max. line pressure **10 bar**
- max. operating temperature **135° C EPDM, HNBR, *VMQ, *FPM**
- short-term load **140° C EPDM, HNBR, *VMQ, *FPM *(no steam)**
- vacuum tightness **2 mbar**
- opening angle butterfly valve **90° C**
  min. air pressure for actuator **6 bar**
  max. air pressure for actuator **10 bar**
- pneumatic air connection (for hose) **6 x 1**

(use dry and clean pneumatic air, only)

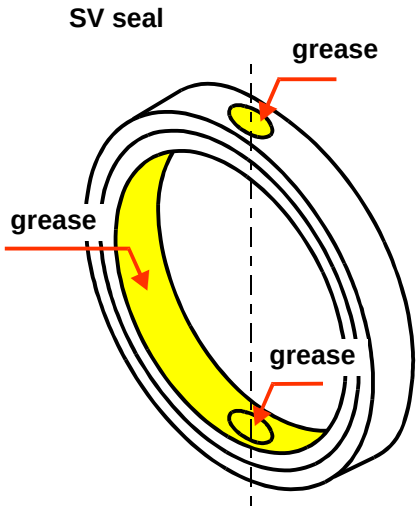
DELTA SVS1F DN	125	150	200	250
pneumatic actuator	Ø 125	Ø 125	Ø 180	Ø 180
required turning torque MD Nm	30	45	65	80
pneum. air consumption at 6bar V NI	5,5	5,5	11	11
kvs values in m3/h	850	1500	2500	4000

8. Materials

- **valve disc** **1.4404 / 1.4571**
- **housing flange / mating flange** **1.4404**
- **SV seal, flange seal**
  standard: **EPDM**
  option: **HNBR, VMQ, FPM**
- **bearings** **Polyamide**
- **handle** **1.4301**

actuator
- **yoke, actuator, bracket** **1.4301**
- **coupling** **1.4057**
- **indicator** **PE - solid**
- **spindle bearing** **Polyamide PA 12 / POM**
- **piston** **Polyacetal POM**
- **air connection** **Polyamide PA 6.6**

9. Maintenance



- The maintenance intervals depend on the application of the valve and should be determined by the operator carrying out **regular checks** of the valve.
- There are a few wear parts on SVS1F butterfly valves, principally the SV seal, flange seals and bearings.
- It is recommended that spare seals and bearings are kept by the user. Complete seal kits for the valve service are available (see spare parts lists).
- If damaged seals are replaced, generally all seals and bearings should be changed.
- Dismantling and installation of seals according to service instructions.
- All seals must be slightly greased before their installation. Grease SV seal according to (fig.1)
  - especially the cross bores.
- Assembly of valve and change of valve design **NC** or **NO** see service instructions.
- Installation of actuator see service instructions.
- The inner parts of the actuator are maintenance free.
- **Attention!** Use food-grade special grease being suited for the respective seal material, only.

Recommendation:

APV-food-grade grease for **EPDM, FPM, HNBR and NBR**
(0,75 kg /can - ref. No. 000 70-01-019/93)
(60 g /tube - ref. No. 000 70-01-018/93)
or
APV-food-grade grease for **VMQ**
(0,6 kg /can - ref. No. 000 70-01-017/93)
(60 g /tube - ref. No. 000 70-01-016/93)

!!! Do not use grease containing mineral oil for EPDM seals !!!

!!! Do not use Silicone-based grease for VMQ seals !!!

10. Service Instructions

10.1 Dismantling from the line system

a. Shut off the line pressure and drain pipeline if possible.

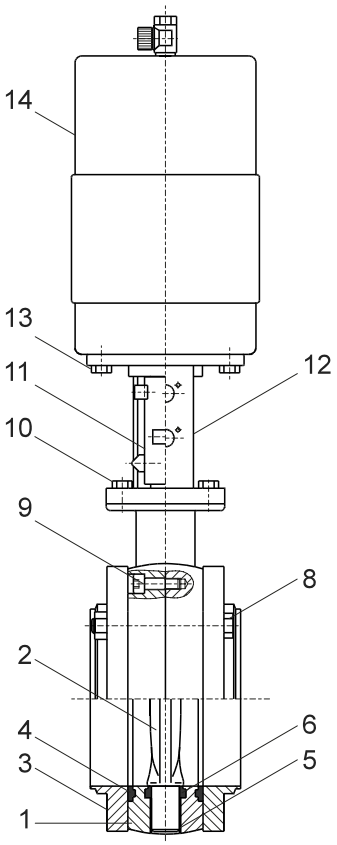
b. Disconnect the pneumatic air line at the turning actuator.

c. Release clamp connection at support of proximity switches.
Pull off proximity switch.

d. Remove flange screws **(8)**.

e. Take butterfly valve out of the flanges.

ATTENTION! Dismantling from the line system with closed valve, only.



10.2 Dismantling of the actuating device

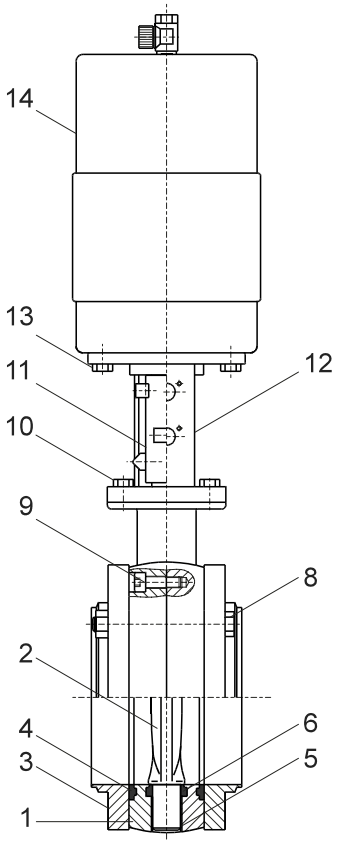
- **Valve design with actuator:**
  (spare parts list RN 01.038.020)
  Remove fastening screws **(10)** at the yoke **(12)**.
  Lift turning actuator **(14)** with yoke and coupling **(11)** off to the top.

  Attention! **With installed valve position indicators, see to the position of the operating cam.**

- **Manual valve design with locking device:**
  (spare parts list RN 01.038.10)
  or
  manual valve design with locking device for valve feedback:
  (spare parts list RN 01.038.10-1)

  Remove fastening screw **(2)**.
  Detach thrust ring **(3)**, handle **(4)** and scale **(1)** to the top.

10. Service Instructions



10.3 Dismantling of inner parts

seal ring, bush bearings, valve disc

- Remove all fastening screws **(9)** around the valve housing and part the housing halves.

10.4 Replacement of seals

a. Take the flange seals **(4)** out of the groove and replace them. Remove the fastening screws **(9)** of the valve core and part the housing halves.

b. Turn the valve disc **(2)** in the sealing ring into open position.

c. Take the bush bearings **(5)** from the disc bolts.

d. By slight pressing, the seal ring **(6)** is deformed longitudinally. Slide the seal ring over the short disc bolt and over the long disc bolt off the disc.

e. Clean the valve disc **(2).**

10.5 Installation of seals and bush bearings

ATTENTION! Reminder to use the suitable grease for the respective seal material.

a. Provide the inner surfaces of the cross bores as well as the disc bolts with a thin layer of grease before the installation of the disc.

b. Slide the sealing ring **(6)** over the long disc bolt, at first, and then over the short disc bolt on the disc **(2)**.

c. Push the bush bearing **(5)** on the disc bolts.

d. Turn the valve disc in the seal ring into open position.

e. Place the valve disc with seal ring and bush bearings into one housing half. Adjust the other housing half and tighten it crosswise with the inner hexagon screws **(9)**.

ATTENTION! Tightening the inner hexagon screws, the valve disc must be in open position.

f. Fasten the mating flanges **(3)** with the screws **(8).**

10. Service Instructions

10.6 Installation of the actuating device

- Proceed in reverse order to the steps described in **10.2**.

- With the manually operated butterfly valve, the valve disc and the handle are in a line.

- For the assembly of the actuator, see to the requested valve design **NC** or **NO**.

  NC = normally closed
  Valve disc is closed.
  Place the pneumatic actuator with yoke and coupling on the valve and tighten them with the screws **(10)**.
  The **upper** operating cam must be adjusted to the **upper** yoke bore**.**

  NO = normally open
  Valve disc is open.
  Place the pneumatic actuator with yoke and coupling on the valve and tighten them with the screws **(10)**.
  The **lower** operating cam must be adjusted to the **lower** yoke bore.

DANGER! After the assembly of the actuator, do not touch the open valve! Risk of bruising by movable valve parts! Risk of injury through sudden valve operation!

10.7 Installation of feedback units

- **Valve feedback OPEN:**
  Installation of the valve feedback in the **lower** yoke bore.

- **Valve feedback CLOSED:**
  Installation of the valve feedback in the **upper** yoke bore.

- Plug proximity switch holder into the yoke and fasten it.
  Introduce proximity switch into the holder until it stops and fasten it with the clamp screw.

11. Trouble Shooting

Trouble	Remedy
Valve is untight	Replace seal ring (6), check line pressure.
Housing in the flange area is untight	Replace flange seal (4).
Spindle passage at housing is untight	Replace seal ring (6) and bush bearings (5).
Air escapes from the air connection	Fasten or replace air connection at the pneumatic actuator.
Actuator does not work, air escapes permanently from the vent bore	Replace pneumatic actuator.

12. Spare Parts

(see annex)

BA SVSF 125002
ID-No.: H 201570

UK

Translation of original manual

rev. 2

WHERE IDEAS MEET INDUSTRY

Your local contact:

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Zechenstraße 49
D-59425 Unna

Phone: +49(0) 23 03/ 108-0 Fax: +49(0) 23 03 / 108-210

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.apv.com.

Ersatzteilliste: spare parts list:

Scheibenventil SVS1F-FZ DN 125-250 1+2S
Butterfly valve SVS1F-A DN 125-250 1+2S

Besteht aus 3 Blatt Blatt 1

	Datum	Name
Gezeichnet	3.5.90	Trytko
Geprüft	7.5.90	Goebel
Normgepr.		

Datum	5/90	2/98	8/98	11/01	02/03				
Name	Trytko	Trytko	Trytko	Trytko	Trytko				

APV Rosista GmbH
D-59425 Unna
Germany

RN 01.038.020

Es stehen verschiedene Dichtungswerkstoffe zur Verfügung. Bitte WS-Nr. ergänzen

The following seal materials are available (fill in last two digits of ref.-no.)

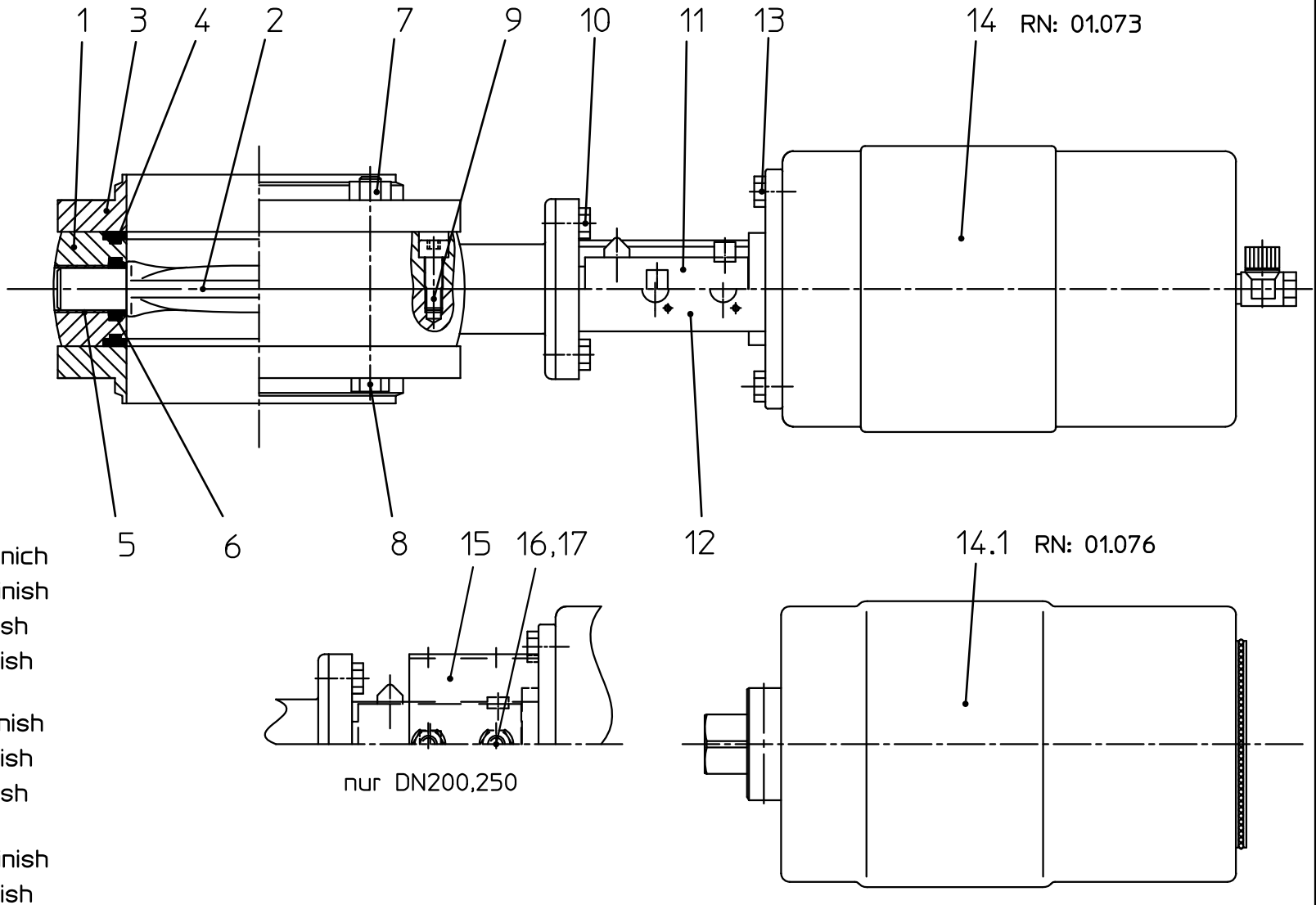
* Dichtungswerkstoff: material seals:
- ../13-VMQ/Silicone
- ../33-HNBR
- ../73-FPM
- ../93-EPDM

Werkstoff metallisch+Dichtung/ material metallic+seal

** ../29-HNBR 1.4404 matt-gl./satin finich
../59-EPDM 1.4404 matt-gl./satin finish
../61-VMQ 1.4404 matt-gl./satin finish
../69-FPM 1.4404 matt-gl./satin finish

*** ../81-EPDM 1.4404 matt-gl./satin finish
../75-VMQ 1.4404 matt-gl./satin finish
../71-FPM 1.4404 matt-gl./satin finish

**** ../90-EPDM 1.4404 matt-gl./satin finish
../79-VMQ 1.4404 matt-gl./satin finish
../89-FPM 1.4404 matt-gl./satin finish



Ersatzteilliste: spare parts list:

Scheibenventil SVS1F-FZ DN 125-250 1+2S
Butterfly valve SVS1F-A DN 125-250 1+2S

Blatt 2

	Datum	Name
Gezeichnet	3.5.90	Trytko
Geprüft	7.5.90	Goebel
Normgepr.		

Datum	5/90	2/98	8/98	04/00	11/01	02/03			
Name	Trytko	Trytko	Trytko	Trytko	Trytko	Trytko			

APV Rosista GmbH
D-59425 Unna
Germany

RN 01.038.020

Pos. item	Menge quantity	Benennung description	DN 125 WS-Nr. ref.-no.	150 WS-Nr. ref.-no.	200 WS-Nr. ref.-no.	250 WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
1	1	Gehäuse SVS1F- Schweißteil Housing SVS1F-welding	09-94-007/44	09-94-008/44	09-94-009/44	09-94-010/44				
2	1	Klappe Disc	08-55-680/43	08-55-730/43	08-55-780/43	08-55-830/43				
3	2	Flansch FG1 Flange FG1	09-51-677/42	09-51-727/42	09-51-777/42	09-51-827/42				
4	2	Dichtung FGN1 * Seal FGN1	58-32-677/	58-32-727/	58-32-777/	58-32-827/				
5	2	Lagerbuchse Bearing	08-01-160/93	=	08-01-161/93	=				
6	1	Dichtung SV * Seal SV	58-33-685/	58-33-735/	58-33-785/	58-33-835/				
7		Skt. Mutter Hex. nut	8x DIN EN 24032-M10-A2	8x	8x DIN EN 24032-M12-A2	12x				
8		Skt. Schraube Hex. screw	8x DIN EN 24014-M10x95-A2-70	8x	8x DIN EN 24014-M12x110-A2-70	12x				
9		Skt. Schraube Hex. screw	2x DIN EN ISO 4762-M8x25-A2-70	4x	4x	4x				
10	4	Skt. Schraube Hex. screw	DIN EN 24017-M8x16-A2-70							
11	1	Kupplung Coupling	08-52-099/17	=	08-52-199/17	=				
12	1	Laterne Yoke	15-40-066/17	=	=	=				
13	2	Skt. Schraube Hex. screw	DIN EN 24017-M10x16-A2-70							
14	1	Drehantrieb Actuator	15-31-057/17	=	15-31-923/17	=				
14.1	1	Drehantrieb F/L für RM Actuator spring/air for control unit	15-37-106/17	=	15-37-103/17	=				
15	1	Initiatorhalter Proximity switch holder			15-33-923/15	=				
16	2	Skt. Schraube Hex. screw			DIN EN 24017-M8x10-A2-70					
17	2	Scheibe Washer			DIN 125 A8,4					

Ersatzteilliste: spare parts list:

Scheibenventil SVS1F-FZ DN 125-250 1+2S
Butterfly valve SVS1F-A DN 125-250 1+2S

Blatt 3

	Datum	Name
Gezeichnet	16.11.01	Trytko
Geprüft		
Normgepr.		

Datum	11/01	02/03								
Name	Trytko	Trytko								

APV Rosista GmbH
D-59425 Unna
Germany

RN 01.038.020

Pos. item	Menge quantity	Benennung description	DN 125 WS-Nr. ref.-no.	150 WS-Nr. ref.-no.	200 WS-Nr. ref.-no.	250 WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
	1	SVS1F-FZ 1S+2S **	25-21-676/	25-21-726/	25-21-776/	25-21-826/				
	1	SVS1F-FZ ohne FG1 Flansche ** without FG1 flange	25-21-694/	25-21-744/	25-21-794/	25-21-844/				
	1	SVS1F 1S+2S ohne Drehantrieb *** without actuator	25-09-676/	25-09-726/	25-09-776/	25-09-826/				
	1	SVS1F ohne Drehantrieb ohne FG1 Flansche **** without actuator and FG1 flange	25-21-694/	25-21-744/	25-21-794/	25-21-844/				
	1	Drehanrtieb mit Laterne + Kupplung Actuator with yoke and coupling	15-31-035/17	=	15-31-036/17	=				
	1	Dichtungssatz Seal kit FPM	58-34-562/00	58-34-563/00	58-34-579/00	58-34-580/00				
	1	Dichtungssatz Seal kit EPDM	58-34-562/01	58-34-563/01	58-34-579/01	58-34-580/01				
	1	Dichtungssatz Seal kit VMQ	58-34-562/02	58-34-563/02	58-34-579/02	58-34-580/02				
	1	Dichtungssatz Seal kit HNBR	58-34-562/06	58-34-563/06	58-34-579/06	58-34-580/06				

Ersatzteilliste: spare parts list:

Scheibenventil SVS1F-H DN 125-250 1+2S
Butterfly valve SVS1F-handle with locking device DN 125-250 1+2S

Besteht aus 2 Blatt Blatt 1

	Datum	Name
Gezeichnet	4.5.90	Trytko
Geprüft	7.5.90	Goebel
Normgepr.		

Datum	5/90	2/98	8/98	11/01					
Name	Trytko	Trytko	Trytko	Trytko					

APV Rosista GmbH
D-59425 Unna
Germany

RN 01.038.021

Es stehen verschiedene Dichtungswerkstoffe zur Verfügung. Bitte WS-Nr. ergänzen

The following seal materials are available (fill in last two digits of ref.-no.)

* Dichtungswerkstoff: material seals:
- ../13-VMQ/Silicone
- ../33-HNBR
- ../73-FPM
- ../93-EPDM

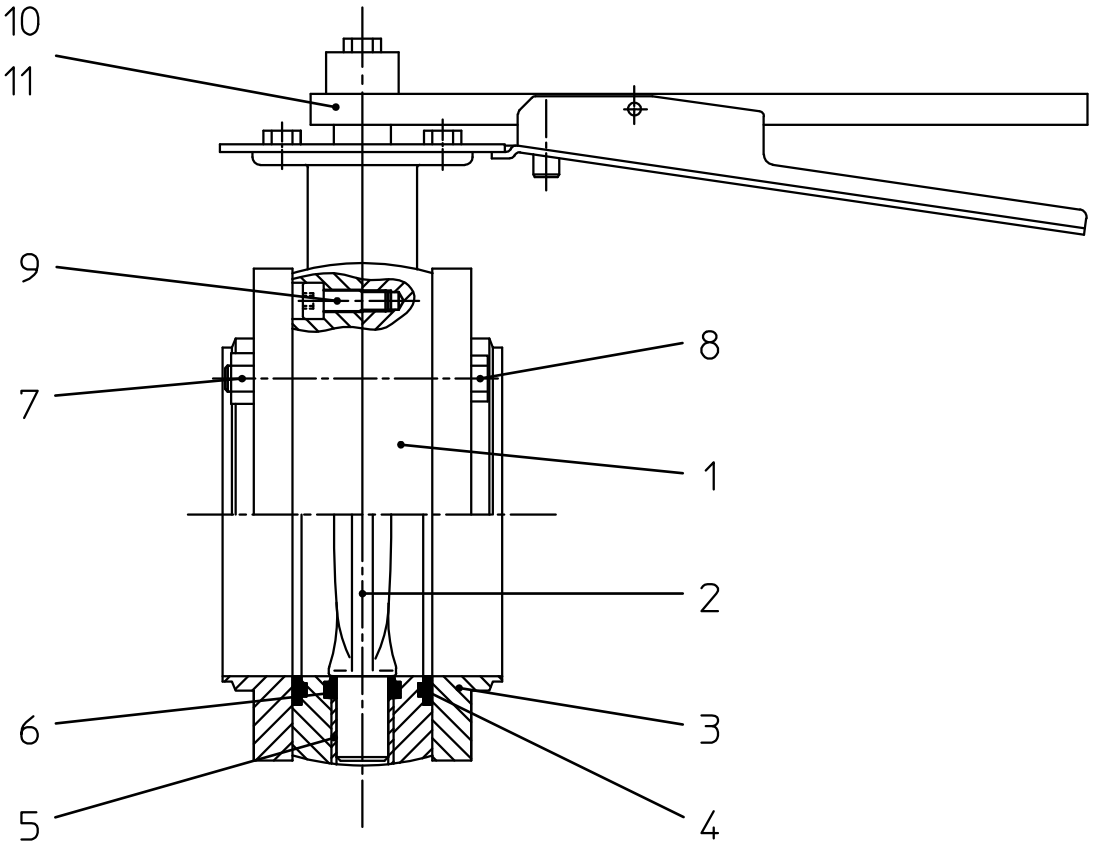
Werkstoff metallisch+Dichtung/ material metallic+seal

** ../29-HNBR 1.4404 matt-gl/satin finish
- ../59-EPDM 1.4404 matt-gl/satin finish
- ../61-VMQ 1.4404 matt-gl./satin finish
- ../69-FPM 1.4404 matt-gl./satin finish

*** ../81-EPDM 1.4404 matt-gl/satin finish
- ../75-VMQ 1.4404 matt-gl./satin finish
- ../71-FPM 1.4404 matt-gl./satin finish

**** ../90-EPDM 1.4404 matt-gl/satin finish
- ../79-VMQ 1.4404 matt-gl./satin finish
- ../89-FPM 1.4404 matt-gl./satin finish

RN: 01.038.10 10
RN: 01.038.10-1 11



Ersatzteilliste: spare parts list:

Scheibenventil SVS1F-H DN 125-250 1+2S
Butterfly valve SVS1F-handle with locking device DN 125-250 1+2S

Blatt 2

	Datum	Name
Gezeichnet	4.5.90	Trytko
Geprüft	7.5.90	Goebel
Normgepr.		

Datum	5/90	2/98	8/98	11/01
Name	Trytko	Trytko	Trytko	Trytko

APV Rosista GmbH
D-59425 Unna
Germany

RN 01.038.021

Pos. item	Menge quantity	Benennung description	DN 125 WS-Nr. ref.-no.	150 WS-Nr. ref.-no.	200 WS-Nr. ref.-no.	250 WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
1	1	Gehäuse SVS1F- Schweißteil Housing SVS1F-welding	09-94-007/44	09-94-008/44	09-94-009/44	09-94-010/44				
2	1	Klappe Disc	08-55-680/43	08-55-730/43	08-55-780/43	08-55-830/43				
3	2	Flansch FG1 Flange FG1	09-51-677/47	09-51-727/47	09-51-777/47	09-51-827/47				
4	2	Dichtung FGN1 * Seal FGN1	58-32-677/	58-32-727/	58-32-777/	58-32-827/				
5	2	Lagerbuchse Bearing	08-01-160/93	=	08-01-161/93	=				
6	1	Dichtung SV * Seal SV	58-33-685/	58-33-735/	58-33-785/	58-33-835/				
7		Skt. Mutter Hex. nut	8x	8x	8x	12x DIN EN 24032-M12-A2				
			DIN EN 24032-M10-A2							
8		Skt. Schraube Hex. screw	8x	8x	8x	12x DIN EN 24014-M12x110-A2-70				
			DIN EN 24014-M10x95-A2-70							
9		Skt. Schraube Hex. screw	2x	4x	4x	4x DIN EN ISO 4762-M8x25-A2-70				
			DIN EN ISO 4762-M8x25-A2-70							
10	1	Handbetätigung Handle	08-41-260/17	=	08-41-261/17	=				
11	1	Handbetätigung mit VSM Handle with position indicator	08-41-270/17	=	08-41-271/17	=				
	1	SVS1F-H 1S+2S **	25-09-676/	25-09-726/	25-09-776/	25-09-826/				
	1	SVS1F-H ohne FG1 Flansche ** without FG1 flange	25-09-694/	25-09-744/	25-09-794/	25-09-844/				
	1	SVS1F 1S+2S ohne Handbetätigung*** without handle	25-09-676/	25-09-726/	25-09-776/	25-09-826/				
	1	SVS1F ohne Handbetätigung **** ohne FG1 Flansche without handle and FG1 flange	25-21-694/	25-21-744/	25-21-794/	25-21-844/				
	1	Flansche FG1 für SVS1F Komplett mit Schrauben Flanges FG1 for SVS1F complete with screws	09-54-140/47	09-54-141/47	09-54-142/47	09-54-143/47				

Ersatzteilliste: spare parts list:

Handbetätigung mit Endlagenverriegelung für SVS1F DN125-250

Handle with locking device for butterfly valves SVS1F DN 125-250

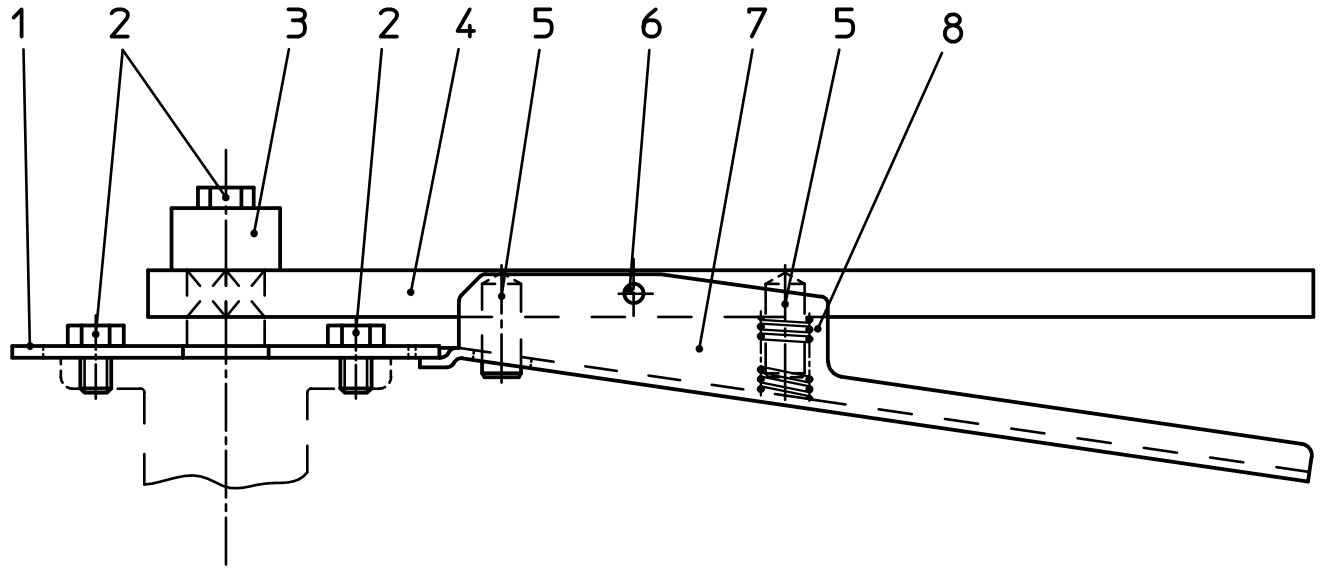
Besteht aus 2 Blatt Blatt 1

	Datum	Name
Gezeichnet	30.8.90	Trytko
Geprüft	11.9.90	Goebel
Normgepr.		

Datum	8/90	2/98								
Name	Trytko	Trytko								

APV Rosista GmbH
D-59425 Unna
Germany

RN 01.038.10



Ersatzteilliste: spare parts list:

Handbetätigung mit Endlagenverriegelung für SVS1F DN125-250

Handle with locking device for butterfly valves SVS1F DN 125-250

Blatt 2

	Datum	Name
Gezeichnet	30.8.90	Trytko
Geprüft	11.9.90	Goebel
Normgepr.		

Datum	8/90	2/98	11/01
Name	Trytko	Trytko	Trytko

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Germany

RN 01.038.10

Pos. item	Menge quantity	Benennung description	DN 125 WS-Nr. ref.-no.	150 WS-Nr. ref.-no.	200 WS-Nr. ref.-no.	250 WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
	1	Handbetätigung für SVS1S kpl Handle for butterfly valve complete	08-41-260/17	=	08-41-261/17	=				
1	1	Rasterscheibe Scale	08-20-007/17	=	=	=				
2	5	Skt. Schraube Hex. screw	DIN EN 24017-M8x12-A2-70							
3	1	Druckstück Spacer	08-48-003/17	=	08-48-021/17	=				
4	1	Handhebel kpl Handle complete	08-41-068/17	=	08-41-076/17	=				
5	2	Steckkerbstift Pin	DIN EN ISO 8741-10x24-V2A							
6	2	Schwerspannstift S 5x18 Pin	67-17-021/13	=	=	=				
7	1	Unterzange Grip	08-41-067/17	=	=	=				
8	1	Drukfeder Pressure spring	60-06-006/13	=	=	=				

Ersatzteilliste: spare parts list:

Handbetätigung mit Endlagenverriegelung für Ventilstellungsmeldung SVS1F DN125-250
Handle with locking device for valve position indicator for butterfly valves SVS1F DN 125-250

Besteht aus 2 Blatt Blatt 1

	Datum	Name
Gezeichnet	20.3.92	Trytko
Geprüft	30.3.92	Goebel
Normgepr.		

Datum	3/92	2/98								
Name	Trytko	Trytko								

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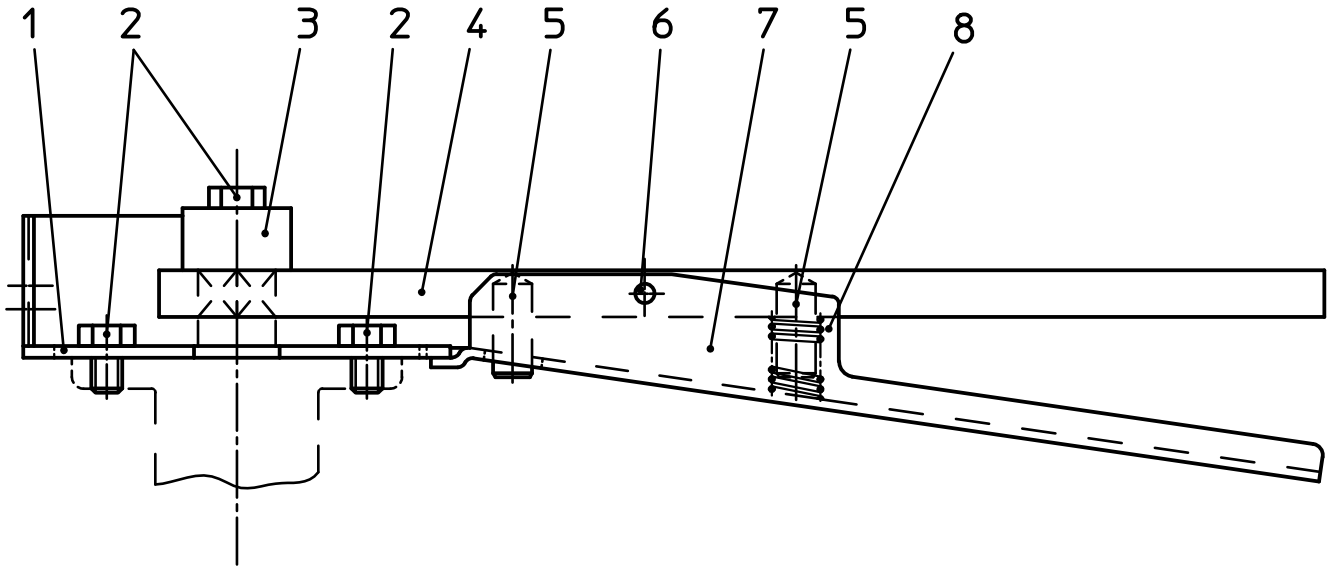
Germany

RN 01.038.10-1



Ersatzteilliste: spare parts list:

Handbetätigung mit Endlagenverriegelung für Ventilstellungsmeldung SVS1F DN125-250
Handle with locking device for valve position indicator for butterfly valves SVS1F DN 125-250

Blatt 2

	Datum	Name
Gezeichnet	20.3.92	Trytko
Geprüft	30.3.92	Goebel
Normgepr.		

Datum	3/90	2/98	11/01							
Name	Trytko	Trytko	Trytko							

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RN 01.038.10-1

Pos. item	Menge quantity	Benennung description	DN 125 WS-Nr. ref.-no.	150 WS-Nr. ref.-no.	200 WS-Nr. ref.-no.	250 WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
	1	Handbetätigung mit VSM kpl Handle with position indicator compl	08-41-270/17	=	08-41-271/17	=				
1	1	Rasterscheibe Scale	08-20-012/17	=	=	=				
2	5	Skt. Schraube Hex. screw	DIN EN 24017-M8x12-A2-70							
3	1	Druckstück Spacer	08-48-003/17	=	08-48-021/17	=				
4	1	Handhebel mit Ventilstellungsmeldung Handle with position indicator	08-41-280/17	=	08-41-281/17	=				
5	2	Steckkerbstift Pin	DIN EN ISO 8741-10x24-V2A							
6	2	Schwerspannstift S 5x18 Pin	67-17-021/13	=	=	=				
7	1	Unterzange Grip	08-41-067/17	=	=	=				
8	1	Drukfeder Pressure spring	60-06-006/13	=	=	=				

Ersatzteilliste: spare parts list:

Drehantrieb K-80, K-125, K-180 F/L

Actuator K-80, K-125, K-180 spring/air

Besteht aus 2 Blatt Blatt 1

	Datum	Name
Gezeichnet	4.3.98	Trytko
Geprüft		
Normgepr.		

Datum	3/98
Name	Trytko

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Germany

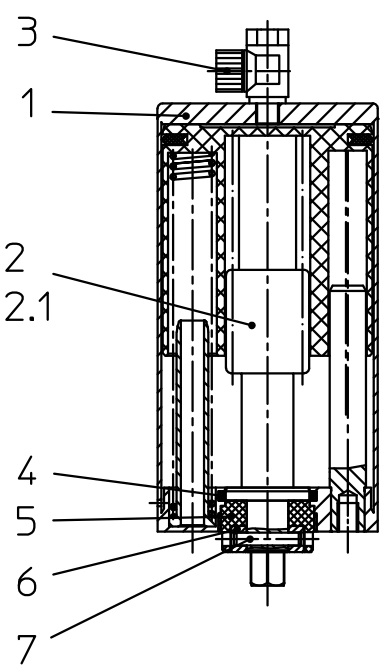
RN 01.073

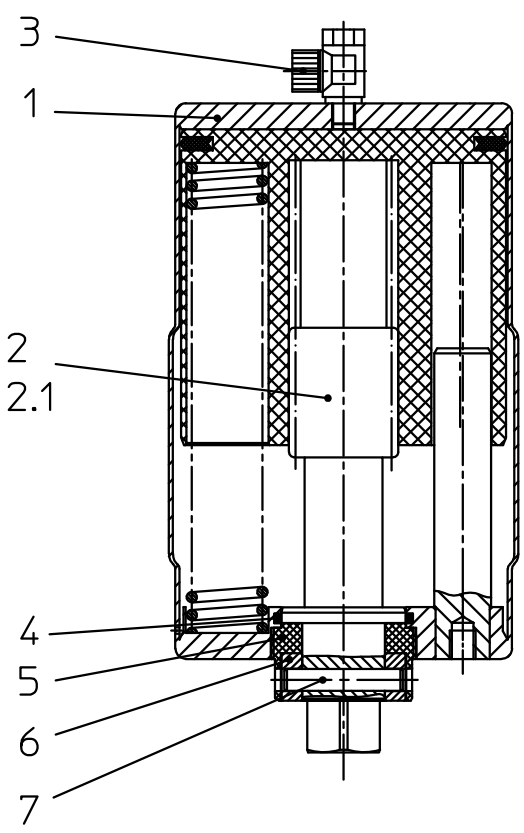
Es stehen verschiedene Werkstoffe zur Verfügung. Bitte WS-Nr. ergänzen

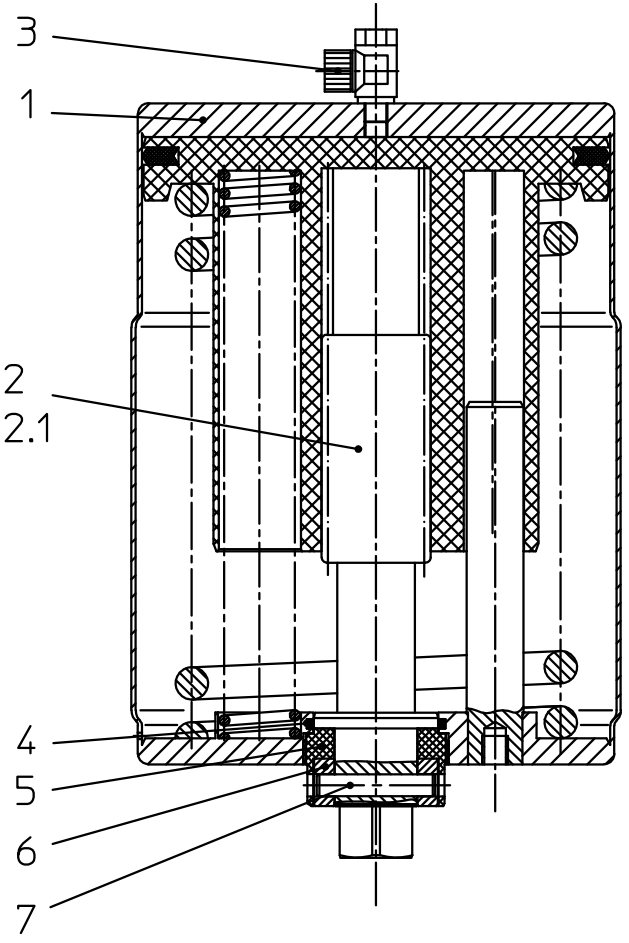
The following materials are available (fill in last two digits of ref.-no.)

*Werkstoff metallisch/ material metallic

../13-1.4301 poliert/polished
../17-1.4301 matt-gl./satin finish







Ersatzteilliste: spare parts list:

Drehantrieb K-80, K-125, K-180 F/L

Actuator K-80, K-125, K-180 spring/air

Blatt 2

	Datum	Name
Gezeichnet	4.3.98	Trytko
Geprüft	4.3.98	Fischer
Normgepr.	4.3.98	Plümper

Datum	3/98	9/98	11/01
Name	Trytko	Trytko	Trytko

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RN 01.073

Pos. item	Menge quantity	Benennung description	Ausführung K-80 WS-Nr. ref.-no.	K-125 WS-Nr. ref.-no.	K-180 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	Drehantrieb-komplett * Actuator-complete	15-31-055/	15-31-057/	15-31-923/					
1	1	Drehantrieb-geschweißt * Actuator-welded	15-31-054/	15-31-056/	15-31-922/					
2	1	Spindel komplett mit Lager Shaft complete with bearing	15-24-021/13	15-24-031/13	15-24-033/13					
2.1	1	Spindel Shaft	15-24-020/13	15-24-030/13	15-24-032/13					
3	1	Verschraubung EWS 6x1 G1/8 Union	08-63-221/93	=	=					
4	1	O-Ring O-ring	OR 32,2x3 NBR 70-75 Shore A	OR 49,5x3 NBR 70-75 Shore A						
5	1	Lager für Drehantrieb Bearing for actuator	15-28-002/34	15-28-009/63	=					
6	1	Stellring Adjust ring	67-08-007/13	67-08-008/13	=					
7	1	Zyl. Kerbstift DIN 1473 Cyl. pin	DIN EN ISO 8740 -5x26-V2A	DIN EN ISO 8740-8x45-V2A						

Ersatzteilliste: spare parts list:

Drehantrieb F/L für Rückmeldeeinheit

Actuator spring/air prepared for control unit

Besteht aus 2 Blatt Blatt 1

	Datum	Name
Gezeichnet	21.06.93	Trytko
Geprüft	25.06.93	Spliethoff
Normgepr.	06.07.93	Plümper

Datum	06/93	10/01								
Name	Trytko	Trytko								

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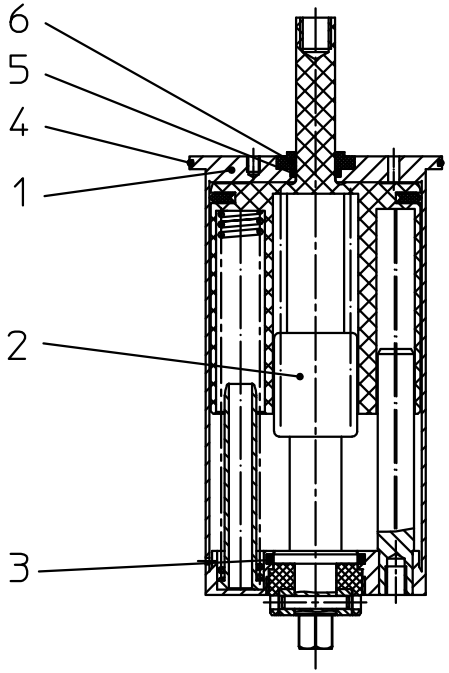
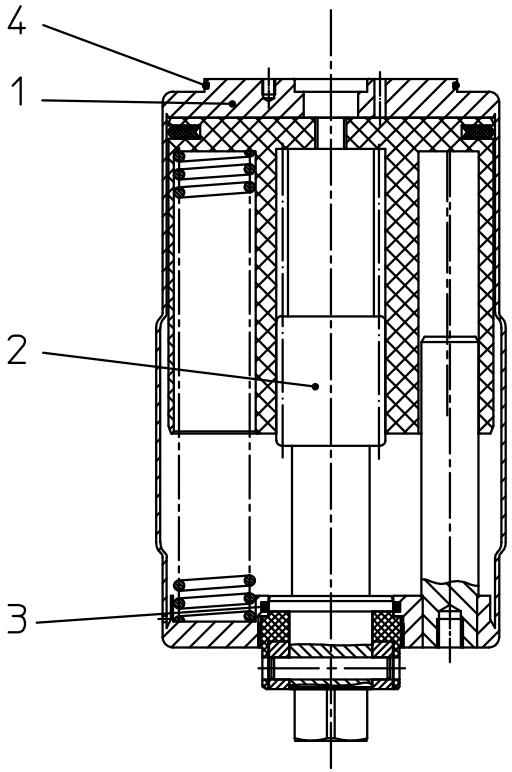
Germany

RN 01.076

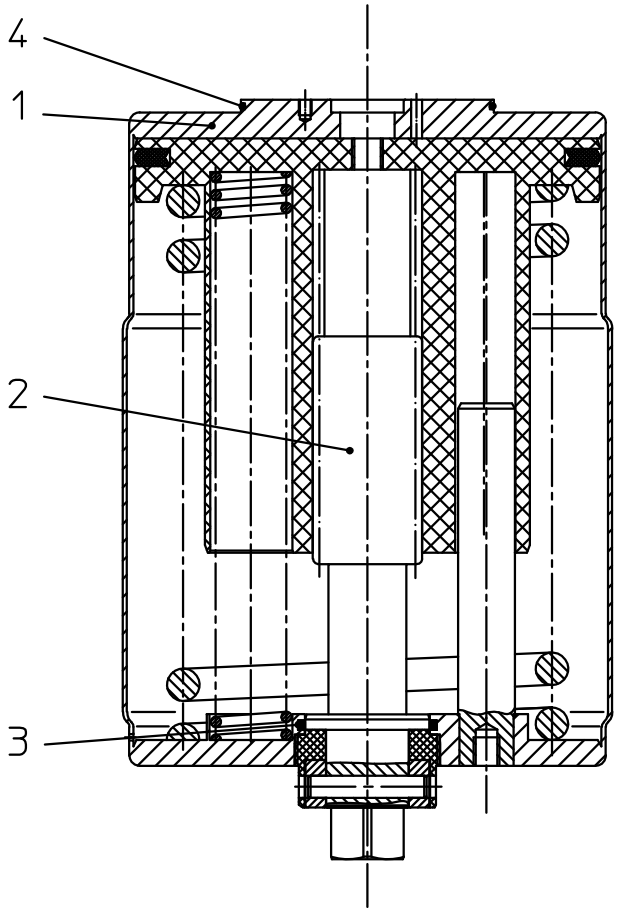
DRAT K080-RM



DRAT K125-RM



DRAT K180-RM



Ersatzteilliste: spare parts list:

Drehantrieb F/L für Rückmeldeeinheit

Actuator spring/air prepared for control unit

Blatt 2

	Datum	Name
Gezeichnet	21.06.93	Trytko
Geprüft	25.06.93	Spliethoff
Normgepr.	06.07.93	Plümper

Datum	06/93	10/01									
Name	Trytko	Trytko									

APV Rosista GmbH
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Germany

RN 01.076

Pos. item	Menge quantity	Benennung description	Ausführung K080 WS-Nr. ref.-no.	K125 WS-Nr. ref.-no.	K180 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	Drehantrieb-komplett * Actuator-complete	15-37-070/17	15-37-106/17	15-37-103/17					
1	1	Drehantrieb-geschweißt * Actuator-welded	15-37-071/17	15-37-105/17	15-37-104/17					
2	1	Spindel komplett mit Lager Shaft complete with bearing	15-24-021/13	15-24-031/13	15-24-033/13					
3	1	O-Ring O-ring	OR 32,2x3 NBR 70-75 Shore A	OR 49,5x3 NBR 70-75 Shore A						
4	1	O-Ring O-ring	OR 90x2 NBR 70-75 Shore A							
5	1	O-Ring O-ring	OR 15,3x2,4 NBR 70-75 Shore A							
6	1	Druckstück Drehantrieb K080 Spacer for actuator K080	08-48-117/53							

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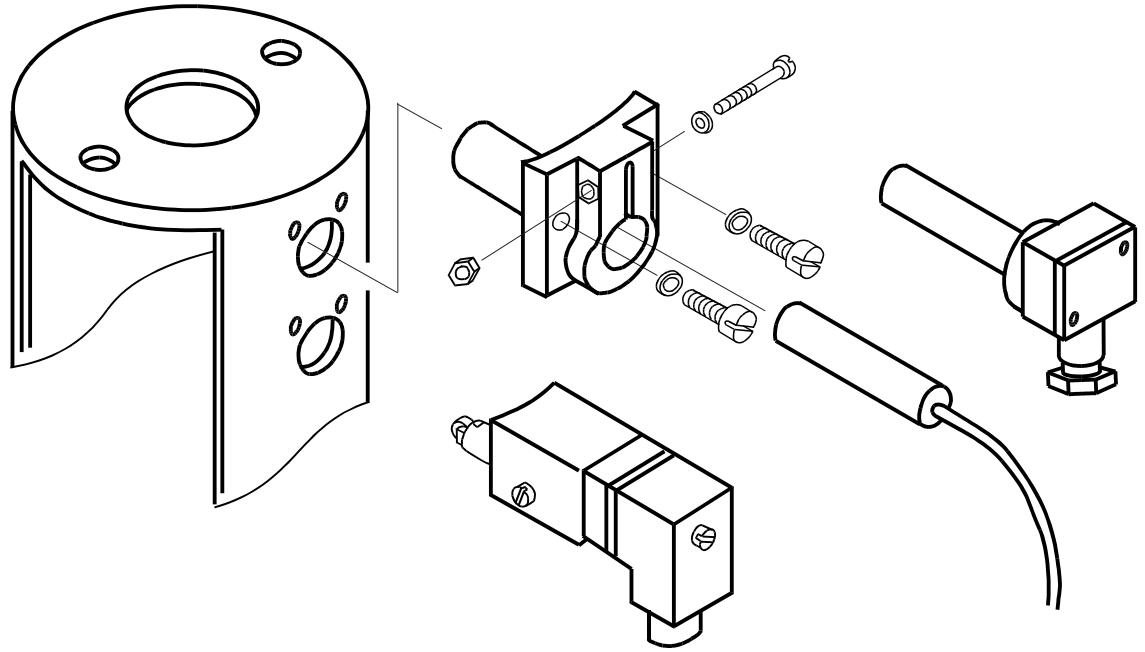
Ventilstellungsmelder (VSM)
position indicator



Beschreibung	Description	ref. - no.
Rückmeldung komplett (s.Abb.) Initiator mit Leuchtdiode und 5m Kabel	feedback complete IHP (s. ill.) proximity switch with LED and 5m cable	**15-33-023/33**
Rückmeldung komplett IHPK Initiator mit Kabelanschlussraum und LED	feedback complete IHPK proximity switch with cable connection housing and LED	**15-33-140/33**
Mikroschalter	micro switch	**15-33-026/93**
Einzelteile	**single parts**	
Initiator mit Leuchtdioden und 5m Kabel (ohne Halterung)	IHP with LED and 5m cable (without support)	**08-60-011/93**
Initiator mit Kabelanschlussraum und LED (ohne Halterung	IHPK with cable connection housing and LED (without support)	**08-60-145/93**
Halterung für Rückmeldungen IHP und IHPK	support for proximity switches IHP and IHPK	**15-33-914/83**
Technische Daten : **Dreidraht - Initiator**	**Technical Data :** **proximity switch with three-core cable**	
Betriebsspannung 10 - 30 V DC	operating voltage 10 - 30 V DC	
pnp plusschaltend, Schließerfunktion	PNP positive switching, closing function	
Nennschaltabstand 5 mm	nominal operating distance 5mm	
Einbau ,,nichtbündig”	installation “nonflush”	