

# Operating Manual DELTA SVS1F DN 125-250 Butterfly Valve







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





## 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, DKR72, DKRH2 in the nominal diameters DN 25 - 150, 1" - 6" and 1 Sh5 - 6 Sh5

butterfly values of the series SV1 and SVS 1 F in the nominal diameters DN 25 - 100, DN 125 - 250 and  $1^{\circ} - 4^{\circ}$ 

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

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Manager Research and Development





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	SVS1F - A DN 125 - 250-RN 01.038.020SVS1F - M DN 125 - 250-RN 01.038.021	
	manual actuation with locking device SVS1F - DN 125 - 250 - RN 01.038.10	
	manual actuation with locking device for valve feedback SVS1F - DN 125 - 250 - RN 01.038.10 -	1





## 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 interchangeable.

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

#### 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.

actua	ator for control unit
DN 125 - 150	refNo.: 000 - 15 - 37 - 106/17
DN 200 - 250	refNo.: 000 - 15 - 37 - 103/17

CU3 control unit with adapter







### 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







			d	imensio	ns in mn	า			
DN	DN A A1 B C ØD E ØF G H								
1 <b>25</b>	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

	weight	s 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 <sup>0</sup> C EPDM, HNBR, *VMQ, *FPM
- short-term load	140 <sup>0</sup> C EPDM, HNBR, *VMQ, *FPM *(no steam)
- vacuum tightness	2 mbar
<ul> <li>opening angle butterfly valve min. air pressure for actuator max. air pressure for actuator</li> </ul>	90 <sup>0</sup> C 6 bar 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.	<b>Materials</b>
<b>v</b> .	matorialo

- valve disc	1.4404 / 1.4571
- housing flange / mating flange	1.4404
<ul> <li>SV seal, flange seal standard: option:</li> </ul>	EPDM 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 70-01-017/93)

 (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.





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## **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).



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> 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



Translation of original manual

rev. 2





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Ń	che	eibenventil SVS1F-FZ DN 12	25-250 1+	2S			Geprüft Normaan	7.5.90 Goeb		D-59425 Unna Germany
ā	utte	erfly valve SVS1F-A DN 12	5-250 1+2	S Datum 5 Name 1	5/90 2/98 8/ Tytka Trytka Tr	<u>/98 04/00 11/0</u> <u>vtka Trytka Try</u>	01 02/03 tko Trytko		RN 01.0	38.020
POS Nos	9Dr Vtitn	Benenninn	125	150	200	250 DI	7			
item	19M DUID	description	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
~	~	Gehäuse SVS1F- Schweißteil Housing SVS1F-welding	09-94-007/44	09-94-008/44	09-94-009/44	09-94-010/44				
2	~	Klappe Disc	08-55-680/43	08-55-730/43	08-55-780/43	08-55-830/43				
m	2	Flansch FG1 Flange FG1	09-51-677/42	09-51-727/42	09-51-777/42	09-51-827/42				
4	2	Dichfung FGN1 Seal FGN1	58-32-677/	58-32-727/	58-32-777/	58-32-827/				
ம	7	Lagerbuchse Bearina	08-01-160/93	II	08-01-161/93	II				
Q	~	Dichtuñg SV  Seal SV	58-33-685/	58-33-735/	58-33-785/	58-33-835/				
2		Skt. Mutter Hex. nut	8x DIN EN 24032	8× -M10-A2	8x DIN EN 24032-	-M12-A2				
8		Skt. Schraube Hex. screw	8x DIN EN 24014-M	8x 10x95-A2-70	8x DIN EN 24014-M	12× 12×110-A2-70				
9		Skt. Schraube Hex. screw	2x DIN EN ISO 47	4X 62-M8x25-A2-	-70 4×	4X				
9	4	Skt. Schraube Hex. screw	DIN EN 24017-	M8x16-A2-70						
1	~	Kupplung Coupling	08-52-099/17	II	08-52-199/17	II				
12	~	Laterne Yoke	15-40-066/17	II	11	II				
Ð	7	Skt. Schraube Hex. screw	DIN EN 24017-	M10×16-A2-70						
14	~	Drehantrieb Actuator	15-31-057/17	II	15-31-923/17	II				
14.1	-	Drehantrieb F/L für RM  Actuator spring/air for control unit	15-37-106/17	II	15-37-103/17	II				
ΰ	~	Initiatorhalter Proximity switch holder			15-33-923/15	II				
16	2	Skt. Schraube Hex. screw			DIN EN 24017-1	48×10-A2-70				
4	7	Scheibe Washer			DIN 125 A8,4					

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J)	Ĕ	elbenventil SVS1F-FZ UN 12	+L 04Z-41	22			Geprüft Normanr			Germany
ய		erfly valve SVS1F-A DN 12.	5-250 1+2	2 S Datum 1 Name T	<u>1/01 02/03</u> rytka Trytka				RN 01.0	38.020
Č d	аб. "		125	150	200	250 D	Z			
iter	T9M Mer	description	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. retno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
	~	SVS1F-FZ 1S+2S	25-21-676/	25-21-726/	25-21-776/	25-21-826/				
	-	SVS1F-FZ ohne FG1 Flansche ** without FG1 flange	25-21-694/	25-21-744/	25-21-794/	25-21-844/				
	-	SVS1F 1S+2S ohne Drehantrieb ***	25-09-676/	25-09-726/	25-09-776/	25-09-826/				
		ohne Drehantrieb **** SVS1F ohne FG1 Flansche without actuator and FG1 flange	25-21-694/	25-21-744/	25-21-794/	25-21-844/				
	-	Drehanrtieb mit Laterne + Kupplung Actuator with yoke and coupling	15-31-035/17	"	15-31-036/17	11				
	~	Dichtungssatz Seal kit	58-34-562/00	58-34-563/00	58-34-579/00	58-34-580/00				
	-	Dichtungssatz Seal kit	58-34-562/01	58-34-563/01	58-34-579/01	58-34-580/01				
	<b>~</b>	Dichtungssatz vma Seal kit	58-34-562/02	58-34-563/02	58-34-579/02	58-34-580/02				
	-	Dichtungssatz Seal kit	58-34-562/06	58-34-563/06	58-34-579/06	58-34-580/06				

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with locking device DN 125-250 1+2S	Datum         5/90         2/98         8/98         11/01         Normgepr.         Normgepr.
Es stehen verschiedene Dichtungswerkstoffe zur Verfügung. Bitte WS-Nr. ergänzen	
The following seal materials are available (fill in last two digits of refno.)	38.10-1 11
* 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	

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צ מ	ith (	ertly valve svolr-nangle locking device DN 125-250	) 1+2S	Datum 5 Name 7	5/90 2/98 8 rytko Trytko Tr	/98 11/01 vtko			RN 01.C	38.021
L L L	ο δ υ		125	150	200	250 D	7			
iten	19M	description	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.	WS-Nr. refno.
-	~	Gehäuse SVS1F- Schweißteil  Housina SVS1F-weldina	77/200-76-60	09-94-008/44	77/600-76-60	06-94-010/44				
7	-	Klappe Disc	08-55-680/43	08-55-730/43	08-55-780/43	08-55-830/43				
m	2	Flansch FG1 Flange FG1	09-51-677/47	09-51-727/47	09-51-777/47	09-51-827/47				
4	2	Dichfung FGN1 * Seal FGN1	58-32-677/	58-32-727/	58-32-777/	58-32-827/				
ப	7	Lagerbuchse Bearing	08-01-160/93	11	08-01-161/93	II				
Ŷ	~	Dichtung SV *	58-33-685/	58-33-735/	58-33-785/	58-33-835/				
4		Skt. Mutter Hex. nut	8× DIN EN 24032	8× -M10-A2	8x DIN EN 24032-	-M12-A2				
80		Skt. Schraube Hex. screw	8× DIN EN 24014-	8x M10x95-A2-70	BX DIN EN 24014-1	12× 110-A2-70				
σ		Skt. Schraube Hex. screw	DIN EN ISO 4	4× 762-M8×25-A	,2-70	4×				
10	-	Handbetätigung Handle	08-41-260/17	11	08-41-261/17	II				
7	~	Handbetätigung mit VSM Handle with position indicator	08-41-270/17	11	08-41-271/17	II				
	-	SVS1F-H 1S+2S **	25-09-676/	25-09-726/	25-09-776/	25-09-826/				
	~	SVS1F-H ohne FG1 Flansche ** without FG1 flange	25-09-694/	25-09-744/	25-09-794/	25-09-844/				
	~	SVS1F 1S+2S ohne Handbetätigung***	25-09-676/	25-09-726/	25-09-776/	25-09-826/				
		ohne Handbetätigung **** SVS1F ohne FG1 Flansche without handle and FG1 flange	25-21-694/	25-21-744/	25-21-794/	25-21-844/				
	<u></u>	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				

Weitergabe sowie Verviefältigung dieser Unterlage. Verwertung und Mitteilung Ihres Inhalts nicht gestattet, soweit nicht schriftlich zugestanden. Versioß verpflichtet zum Schadensersatz und kann strafrechtliche Falgen haben Paragraph 18 UwG, Paragraph 166 Urbh. Eigen haben für Patienteilung und Gebrauchsmelts und darf nicht vorbehalter. APV Rosista GabH. Diese Zeichnung wird GAD enstellst und darf nicht vorbehalter werden.	Ersatzteilliste: spare parts list:DatumNameApvRoetta cutApvHandbetätigung mit EndlagenverriegelungBesteht aus2Blatt1Gezeichnet30.8.90TrytkoApvRoetta cutContHandbetätigung mit EndlagenverriegelungBesteht aus2Blatt1Gezeichnet30.8.90TrytkoApvRoetta cutFür SVS1FDN125-250Normgepr.Normgepr.Normgepr.Normgepr.RN01.038.10Handle with locking device for butterfly valvesNameTrytkoTrytkoRN01.038.10NameTrytkoNameTrytkoNormgepr.Normgepr.RN01.038.10	
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		RN NR		WS-Nr refnc															
	Datum         Name           30.8.90         Tryth           11.9.90         Goet			WS-Nr. refno.															
	Gezeichnet Geprüft Normaar		Ζ_	WS-Nr. refno.															
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	Blatt 2	<u>190 2/98 1</u> rytka Trytka Tr	200	WS-Nr. refno.	08-41-261/17	"		08-48-021/17	08-41-076/17		11	11	11						
		Datum 8 Name T	150	WS-Nr. refno.	II	=	48×12-A2-70	II	=	;1-10×24-V2A	II	=	=						
GmbH. srden.	elung	erfly valves	125	WS-Nr. refno.	08-41-260/17	08-20-007/17	DIN EN 24017-N	08-48-003/17	08-41-068/17	DIN EN ISO 874	67-17-021/13	08-41-067/17	60-06-006/13						
sowie Vervielfättigung dieser Unterlage. Verwertung und Mitteilung in nicht gestattet, soweit nicht schriftlich zugestanden. Verstoß zum Schadensenstiz und kann strafrechtliche Folgen haben 18 UVG. Paragraph 166 UrhGI. Eigentum und alle Rechte, auch 18 UVG. Paragraph vorbehalten. APV Rosista rung wurde mit CAD erstellt und darf nicht von Hand geändert wer	zteilliste: spare parts list: dbetätigung mit Endlagenverriege für SVS1F DN125-250	dle with locking device for butte SVS1F DN 125-250		description	Handbetätigung für SVS1S kpl Handle for butterfly valve complete	Rasterscheibe Scale	Skt. Schraube Hex. screw	Druckstück Spacer	Händhebel kpl Handle complete	Steckkerbstift Pin	Schwerspannstift S 5×18	Unterzange Grip	Drukfeder Pressure spring						
Weitergabe ihres Inhalts verpflichtet für Patenterh Diese Zeichn	Ersat Hanı	Hanı		item Mer	-	1	2 5	ڪ ا	4 1	5 2	6 2	7 1	8 1						

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	teht aus <u>2</u> Blatt Blatt <u>1 Gezeichnet 20.3.92 Try</u> Geprüft <u>30.3.92 Go</u>	n 3/92 2/98 Number 1 2/98 Trytko Trytko	
feitergabe sowie Vervielfältigung dieser Unterlage. Verwertung und Mitteilung tres inhalts nicht gestattret, soweit nicht schriftlich zugestanden. Verstoß erpflichtet zum Schadensersatz und kann straftechtliche Falgen haben baragraph 16 UwG. Paragraph 166 Uhb. Eigenhum und alle Rechte, auech ür Pfeienterteilung und Gebrauchsmustereinfragung, vorbeholten. APV Rosista GmbH. Miese Zeichnung wurde mit CAD erstellt und darf nicht von Hand geändert werden.	Ersatzteilliste: spare parts list: Handbetätigung mit Endlagenverriegelung für Ventilstellungsmeldung SVS1F DN125-250	Handle with locking device for valve position ban indicator for butterfly valves SVS1F DN 125-250 Num	

02/94	<b>LPV Rosista GmbH</b> -59425 Unna sermany	8.10-1		WS-Nr. refno.															
		RN 01.03		WS-Nr. refno.															
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	Gezeichnet Geprüft Normanr			WS-Nr. refno.															
		(01 1ka	250 D	WS-Nr. refno.	11	"		11	II		II	11	11						
	3latt	90 2/98 11. vtko Trytko Try	200	WS-Nr. refno.	08-41-271/17	"		08-48-021/17	08-41-281/17		11		11						
	3	Datum <u>3/</u> Name Tr	150	WS-Nr. refno.	"	"	18×12-A2-70	=	) =	1-10×24-V2A	II	II	11						
GmbH. rden.	lung 125-250	position DN 125-25(	125	WS-Nr. refno.	10-41-270/17	08-20-012/17	DIN EN 24017-N	38-48-003/17	08-41-280/17	DIN EN ISO 874	57-17-021/13	08-41-067/17	60-06-006/13						
ie Vervielfättigung dieser Unterlage. Verwertung und Mitteilung cht gestattet, soweit nicht schrifflich zugestanden. Verstoß m Schodensenzt zur die Aram straffrechtliche Fagen hoben UWG, Paragraph 106 Uh401. Eigentum und alle Rechte, auch ung und Gebrauchsmustereinfragung, vorbehalten. APV Rosista C g wurde mit CAD erstellt und darf nicht von Hand geändert werc	reilliste: spare parts list: etätigung mit Endlagenverriegel: entilstellungsmeldung SVS1F DN1	e with locking device for valve tor for butterfly valves SVS1F	Renen	description	Handbetätigung mit VSM kpl Handle with position indicator compl	Rasterscheibe 5000000000000000000000000000000000000	Skt. Schraube Hex. screw	Druckstück Spacer	Handhebel mit Ventilstellungsmeldung 0 Handle with position indicator	Steckkerbstift D Pin	Schwerspannstift S 5×18 6 Pin	Unterzange Grip	Drúkfeder Pressure spring						
Weitergabe sov Ihres Inhalts ni verpflichtet zur Paragraph 18 für Patenterteil Diese Zeichnun	Ersatzi Handb für Ve	Handle	o ser Vtitn	item Mer gua	~	1 1	2 5	۳ ۱	4 1	5 2	6 2	7 1	8 1						



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	Gezeichnet / 208 -	Geprüft 4.3.98 F Normchent 7.3.98 F				WS-Nr. WS-Nr refno. refno															
			11/01	Trytko	_	WS-Nr. refno.						A									
		Blatt _	3/98 9/98	Trytko Trytko	g K-180	WS-Nr. refno.	15-31-923/	15-31-922/	3 15-24-033/13	3 15-24-032/13	11	3R 70-75 Shore	= E	=	740-8x45-V2A						
			Datum	Name	Ausführung   K-125	WS-Nr. refno.	15-31-057/	15-31-056/	15-24-031/13	3 15-24-030/1	"	R 6,5x3 NB	4 15-28-009/6	3 67-08-008/1	to IN EN ISO 8:						
g ita GmbH. werden.		0 F/L	spring/air		K-80	WS-Nr. refno.	15-31-055/	15-31-054/	15-24-021/13	15-24-020/13	08-63-221/9	OR 32,2x3 NBF 70-75 Shore /	15-28-002/3	67-08-007/1	DIN EN ISO 874 -5x26-V2A						
e sowie Vervielfätitigung dieser Unterlage. Verwertung und Mitteilum. Its nicht gestattet, soweit nicht schriftlich zugestanden. Verstaß it zum Schadensersatz und kann straftrechtliche Folgen haben n 18 UwG, Paragraph 106 UrhG). Eigentum und alle Rechte, auch erteilung und Gebrauchsmustereinfragung, vorbehalten. APV Rosist ihnung wurde mit CAD erstellt und darf riicht von Hand geändert v	utzteilliste: spare parts list:	ehantrieb K-80, K-125, K-181	tuator K-80, K-125, K-180 s		vtitr recent	description	1 Drehantrieb-komplett * 1 Actuator-complete	1 Drehantrieb-geschweißt * Actuator-welded	1 Spindel komplett mit Lager Shaft complete with bearing	1 Shaft	1 Verschraubung EWS 6x1 G1/8 Union	1 O-Ring 0-ring	1 Lager für Drehantrieb 1 Bearing for actuator	1 Stellring Adiust ring	1 Zyl. Kerbsfift DIN 1473 Cyl. pin						
Weitergabe ihres Inhalt verpflichtel Vergagraph für Patente Diese Zeict	Ersa	Dre	Act		абі У С	item Mer		-	2	2.1	m	7	۔ د	9	2						



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	Datum Name	5.06.93 Splietho			WS-Nr. refno.														
	Co-oichaot	Geprüft 2			WS-Nr. refno.														
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	с :	3latt _	/93 10/01 ytka Trytka	K180	WS-Nr. refno.	5-37-103/17	15-37-104/17	15-24-033/13	k3 NBR hore A		A								
			Dit Datum 06 Name Tr	Ausführung K125	WS-Nr. refno.	15-37-106/17	15-37-105/17	15-24-031/13	0R 49,5) 70-75 S	70-75 Shore A	R 70-75 Shore								
GmbH. rden.		nheit	control u	K080	WS-Nr. refno.	15-37-070/17	15-37-071/17	15-24-021/13	JR 32,2x3 NBR 70-75 Shore A	DR 90x2 NBR 7	OR 15,3x2,4 NB	08-48-117/53							
Vervielfältigung dieser Unterlage, Verwertung und Mittellung t gestattet, soweit nicht schriftlich zugestanden. Verstoß Schadensersatz und kann strafrechtliche Folgen haben G. Paragaph 106 UrhG). Eigentum und alle Rechts, auch g und Gebrauchsmustereinfragung, vorbehalten. APV Rosista wurde mit CAD erstellt und darf nicht von Hand geändert wer	illiste: spare parts list:	ntrieb F/L für Rückmeldeeir	tor spring/air prepared for	Renenninn	description	rehantrieb-komplett * * /	rehantrieb-geschweißt * 1 .ctuator-welded	pindel komplett mit Lager haft complete with bearing	-Ring -ring	-Ring -ring	-Ring -ring	Iruckstück Drehantrieb K080 bacer for actuator K080							
Weitergabe sowi Ihres Inhalts nic verpflichtet zum (Paragraph 18 U für Patenterteilu Diese Zeichnung	Ersatzte	Dreha	Actua	o Atitn V	Mer Mer		1 1 <sup>[</sup>	2 1 2	∋ 1 (	4 1 <mark>(</mark>	) 1 2	6 1 <mark> </mark>							





# 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"	