

APV DELTA RG4 DN25-150, 1"-4" MODULATING VALVE



SAFETY AGAINST EXPLOSION - FOR SPECIFIC ATEX-APPLICATIONS

FORM NO.: H333927 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 the

APV modulating valves of the series RG4 and variants ATEX design
in the nominal diameters DN 25 – 150, 1“ – 4“

meet the requirements of:

Machinery Directive 2006/42/EC
(superseding 89/392/EEC and 98/37/EC)
Equipment and Product Safety Act 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 correspond 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)

Authorised person for the documentation:
Frank Baumbach

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November 2017

Handwritten signature of Frank Baumbach in black ink, with the initials 'ppa.' written above it. The signature is written over a horizontal dashed line.

Frank Baumbach
Regional Engineering Manager, F&B Components

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Spare Parts List Inch design	RN ATEX 01.170.1
Spare Parts List DN design	RN ATEX 01.170.0
RG4 pneumatic actuator MAT 3277 MFS normally closed and normally open	RN ATEX 01.170.13-4

1. General Terms

This instruction manual applies for DELTA RG4 modulating valves in the nominal dimensions DN25-150, 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 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, 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!**

Do not touch the open valve body or the yoke!

Risk of injury due to sudden valve operation.

Risk of injury in dismantled valve state due to sudden valve operation.

- Regular maintenance including the replacement of all seals and bearing bushes must be scheduled in order to prevent leakages and discharge of liquids..
- Before any maintenance work the line system must be depressurized and drained if possible.
- Separate all electric and pneumatic connections.
- Observe the following Service Instructions to ensure safe maintenance of the valve.

2. Safety Instructions

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

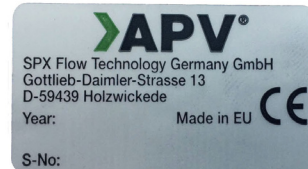
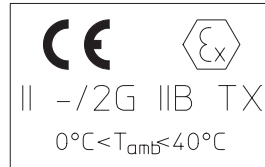
The following aspects must be observed:

- 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 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!

3. Identification of valves, Temperature classes, Responsibilities

3.1. Identification of valves for use in ATEX environment

ATEX - identification:



- Equipment group II
- Equipment category outside 2G
 inside no equipment
- Explosion subcategory IIB

Ambient temperature for the operation

$$0\text{ }^{\circ}\text{C} \leq T_{\text{amb}} \leq 40\text{ }^{\circ}\text{C}$$

- 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 _{max} .
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 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!

3. Identification of valves, Temperature classes, Responsibilities

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.

4. Intended Use

The intended use as field of application of the modulating valve DELTA RG4 is the flow and pressure regulation of liquids and gases.

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.

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

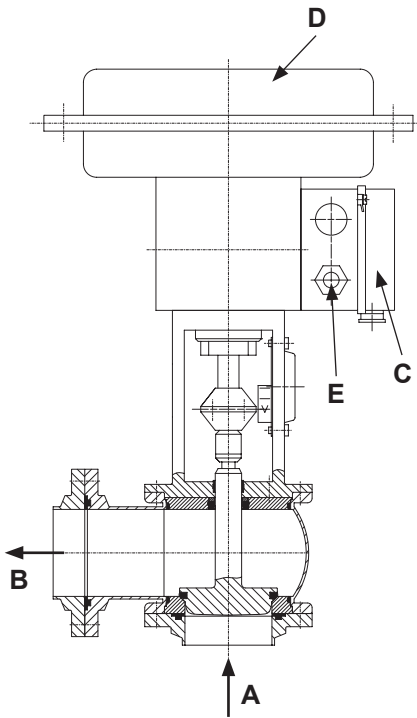
Authorizations and External Evaluations

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

positioner
integrated



5.1. General terms

Hygienic modulating valves DELTA RG4 are used for the continuous control of liquid flows in beverage and food technology as well as in the chemical and pharmaceutical industry. Modulating valves are suited for the flow and pressure control of liquids and gases.

The valves are designed for universal applications and stand out for their increased mechanical reliability and absolute ease of service.

- In its basic construction, the DELTA RG4 valve is designed as corner valve and, thus, ensures a good diversion of liquid flows. The flow direction is from A to B (see fig. 1).
- The body being free from dead spaces proves optimum cleaning conditions. The crevice-free sealing of the individual parts of the body is effected by profile seals, thus eliminating any source of infection.
- The relation between flow and cone stroke is defined by the characteristics.
- Different kvs values (flow) at certain nominal dimensions can be reached by different inserts (valve seat / valve cone).
- The table (item 11) shows the parts which have to be replaced if flow rates are changed. The design of the valves with regard to the actuating pressure range or flow rate is made by the manufacturer.
- The connections for the electric and pneumatic supply lines are located laterally at the valve positioner (E).



The pneumatic actuator (D) provides the path and the force to open or to close the control element. The diaphragm actuator is suited for longer actuating distances at minimum self-friction. The valve positioner (C) guarantees the preset coordination between valve position and control signal. It compares the control signal (4-20 mA) given by the control device with the stroke of the control element and defines the pneumatic actuating pressure as output signal.

5. Mode of Operation

- Depending on the specific requirement, the modulating valve can be operated either with spring opening or with spring closing function.

MFS - diaphragm actuator, spring closing

The actuator opens by actuating pressure and closes by spring pressure.

MFH - diaphragm actuator, spring opening.

The actuator closes by actuating pressure and opens by spring pressure.

For the various applications, the diaphragm actuators are supplied with different diaphragm surfaces and different actuating pressures. In its standard design, the valve positioner is a electro-pneumatic transformer. A pneumatic valve positioner (control signal 0.2-1.0 bar) is also available for specific operations.

The direction of flows transferred can be rising (directional equality >>) or falling (directional reverse <>).

Positioner IP3730-11

Installation and instruction manual of electro-pneumatic positioner IP3730-11

see <http://www.samson.de> / English / Search (EB 8384-1)

- The positioner is installed laterally at the diaphragm actuator. Feedback of the valve position is undertaken by mechanical pick-off below the diaphragm actuator.

6. Cleaning

6.1. Flow areas

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

The compatibility of the individually selected cleaning processes and liquids with the respective seal material must be verified.

7. Installation

7.1. General terms

Installation must be undertaken in such a way that liquids can drain off the valve housing and should preferably be carried out in vertical position.

Attention! Observe Welding Instructions 7.2.



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

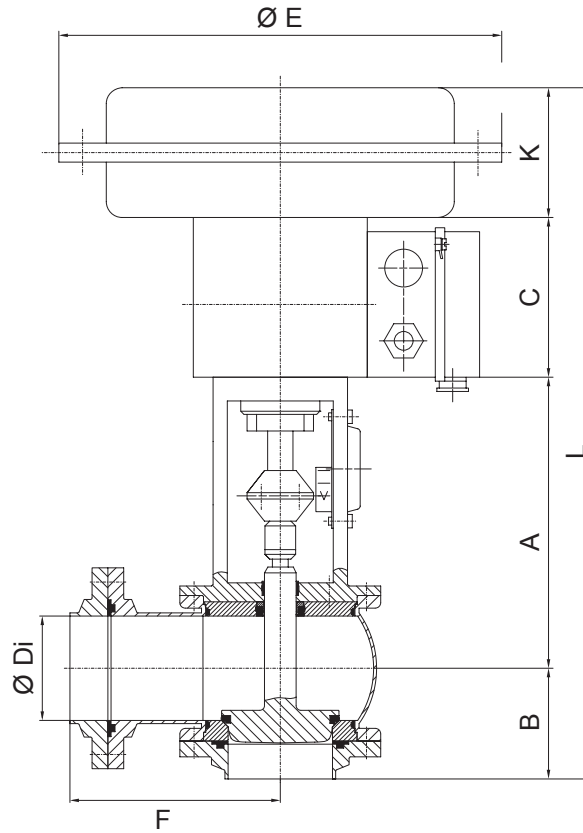
7. Installation

7.2. Welding instructions

- Welding may only be carried out by certified welders (DIN EN ISO 9606-1). (Seam quality DIN EN ISO 5817).
- Before welding, the insert and the seals must be dismantled.
- During tacking, the lower and lateral flange must be connected with the housing.
- Welding of the valve housings must be undertaken in such a way that deformation strain cannot be transferred to the valve body.
- The preparation of the weld seam up to 3 mm thickness must be carried out in butt manner as an square butt joint without air. (Consider shrinkage!)
- TIG orbital welding is best!
- After welding of the 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 nonobservance of these welding instructions is not subject to our guarantee.

8. Dimensions / Weights

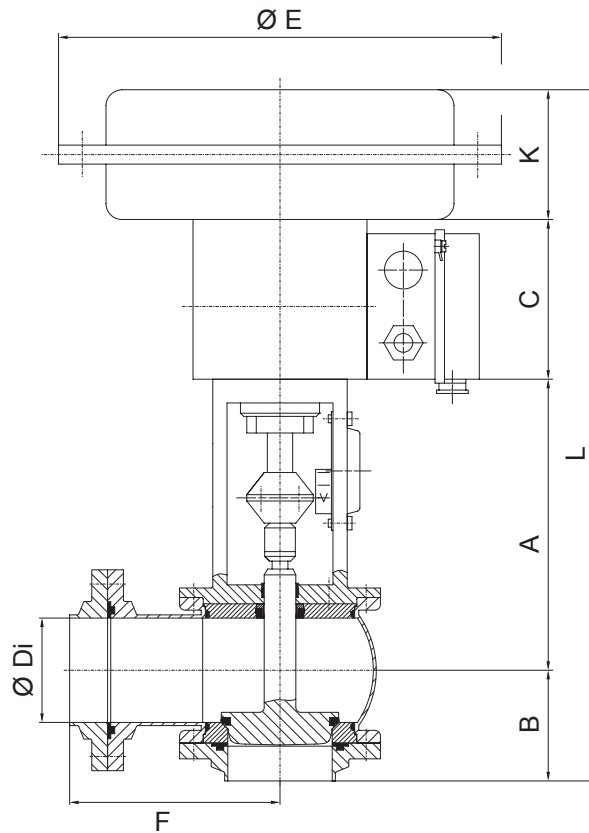
8.1. Integrated positioner (metric dimensions)



dimensions in mm										weight in kg
DN	actuating surface (cm ²)	L	A	B	C	Ø Di	F	Ø E	K	
25	120	371	163,5	49,5	88	26	98	168	70	9,9
	240	379			101			240	65	10,8
40	120	389	169,5	55,5	88	38	115	168	70	11,7
	240	391			101			240	65	12,1
	350	411			101			280	85	15,1
50	120	395	175,5	61,5	88	50	120	168	70	12,2
	240	403			101			240	65	12,7
	350	423			101			280	80	15,7
65	240	420	184,0	70,0	101	66	133	240	65	15,1
	350	440						280	85	17,4
80	240	435	191,5	77,5	101	81	146	240	65	16,2
	350	455						280	85	19,8
100	350	474	201,0	87,0	101	100	159	280	85	22,7
	700	540	217,0					390	135	38,7
125	350	506	215,5	104,5	101	125	184	280	85	23,9
	700	576	226,5					390	135	39,8
150	700	592	239,0	117,0	101	150	204	390	135	44,0

8. Dimensions / Weights

8.2. Integrated positioner (Inch dimensions)



dimensions in mm										weight in kg
Inch	actuating surface (cm ²)	L	A	B	C	Ø Di	F	Ø E	K	
1"	120	367,2	161,6	47,5	88	22,2	98	168	70	9,9
	240	375,2			101			240	65	10,8
1,5"	120	379,9	167,5	53,9	88	34,9	115	168	70	11,7
	240	387,9			101			240	65	12,1
	350	407,9			101			280	85	15,1
2"	120	392,6	174,3	60,3	88	47,6	120	168	70	12,2
	240	400,6			101			240	65	12,7
	350	420,6			101			280	80	15,7
2,5"	240	414,4	181,2	67,2	101	60,3	133	240	65	15,1
	350	434,4			101			280	85	17,4
3"	240	427,0	187,5	73,5	101	72,9	146	240	65	16,2
	350	447,0			101			280	85	19,8
4"	350	471,6	199,8	85,8	101	97,6	159	280	85	22,7
	700	537,6	215,8					390	135	38,7

9. Technical Data

9.1. General data

- max. permissible operating pressure: DN 25 - DN 65 25 bar
DN 80 - DN 100 16 bar
DN 125 - DN 150 10 bar
- correcting ratio: 1 : 50
- standard design: housing 1.4404
inner surface electro-polished Ra 0,8µm
external surface satin finish
- air pressure of diaphragm actuator: max. 6 bar
(min. 0.4 bar above max. actuating pressure
e.g. 0.6 - 3 bar
* min.: 3.4 bar)
- reference variable of electro-pneumatic positioner: 4 - 20 mA
- reference variable of pneumatic positioner: 0.2 - 1 bar
- max. operating temperature: 135°C EPDM, HNBR
*FPM, *VMQ
- **short-term load:** **140°C EPDM, HNBR**
*FPM, *VMQ
*(no steam)
- ambient temperature: 0 - 40 °C

9. Technical Data

9.2. Compressed air quality

- Compressed air quality: quality class according to ISO 8573-1
- Content of solid particles: quality class 3,
max. number of particles per m³
10000 of 0,5 µm < d ≤ 1,0 µm
500 of 1,0 µm < d ≤ 5,0 µm
- Content of water: quality class 3,
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/m³

The oil applied must be compatible with Polyurethane elastomer materials.

9. Technical Data

9.3. Materials

RG4 components	Material
housing, valve shaft, housing cover, valve seat, flange	1.4404 (DIN EN 10088)
valve yoke	1.4308 (DIN EN 10088)
coupling (compl.) screws, nuts	1.4301 (DIN EN 10088)
housing seal	Standard: EPDM Optional: HNBR, FPM, VMQ
seat seal, shaft seal, FGN1 seal	Standard: EPDM Optional: HNBR, FPM, VMQ
type plate	PVC adhesive label
Diaphragm actuator	Material
diaphragm shells	sheet steel plastic coated
rolling diaphragm	NBR or EPDM with fabric insert
connecting rod, intermediate piece	1.4301 (DIN EN 10088)
springs	1.1250 or 1.7102 plastic coated
Positioner	Material
housing	aluminium pressure die casting, plastic coated
external parts	1.4301 and. 1.4104 (DIN EN 10088)

9. Technical Data

9.4. Kvs - values in m³/h, valve stroke, Ø valve seat (S)

DN25		DN40		DN 50		DN 65		DN 80		DN 100		DN 125		DN 125		DN 150				
stroke 15 mm		stroke 15 mm		stroke 15 mm		stroke 15 mm		stroke 15 mm		stroke 15 mm		stroke 15 mm		stroke 30 mm		stroke 30 mm				
Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø			
10,0	26	25	38	40	50	63	66	100	81	160	100			250	125	400	150			
6,3		16																		
4,0	13	10	26	25	38	40	50	63	66	100	81	160	100	160	100	250	125			
2,5		6,3		16																
1,6*	8	4,0	13	10	26	25	38	40	50	63	66	100	81			160	100			
1,0		2,5		6,3		16														
0,63*																				
0,4*	4																			
0,25*																				

1"		1,5"		2"		2,5"		3"		4"				
stroke 15 mm		stroke 15 mm		stroke 15 mm		stroke 15 mm		stroke 15 mm		stroke 15 mm				
Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø	Kvs	S Ø			
10,0	26	25	38	40	50	63	66	80	72,9	160	100			
6,3		16												
4,0	13	10	26	25	38	40	50	63	66	100	81			
2,5		6,3		16										
1,6*	8	4,0	13	10	26	25	38	40	50	63	66			
1,0		2,5		6,3		16								
0,63*														
0,4*	4													
0,25*														

* = metal sealing

10. Maintenance

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

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.



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!

Dismantling and installation of valve seat / valve cone according to Service Instructions (pos. 11).

Exchange of seals is done according to Service Instructions. Customer stock keeping of spare seals is recommended. For valve service actions we supply complete seal kits including seal grease (see spare parts lists).

Attention! Use food-grade grease and special greases being suited for the respective seal material, only!

Recommendation:

APV assembly grease for EPDM, FPM, HNBR and NBR
(0,75 kg/tin - ref.-No. 000 70-01-019/93; H147382)
(60 g/tube - ref.-No. 000 70-01-018/93; H147381)

or

APV assembly grease for VMQ (Silicone)
(0,6 kg/tin - ref.-No. 000 70-01-017/93; H147380)
(60 g/tube - ref.-No. 000 70-01-016/93; H147379)

- ! Do not use grease containing mineral oil for EPDM seals.
- ! Do not use Silicone-based grease for VMQ seals.

Less suited grease types can influence function and service life.

Diaphragm actuator

Installation and Instructions Manual of diaphragm actuator 3277
see <http://www.samson.de> / English / Search (EB 8310-6)

Electro pneumatic positioner

Installation and Instructions Manual of electropneumatic positioner IP3730-11
see <http://www.samson.de> / English / Search (EB 8384-1)

11. Service Instructions

Corresponding spare parts see

Spare Parts List: RN ATEX 01.170.1, RN ATEX 01.170.0

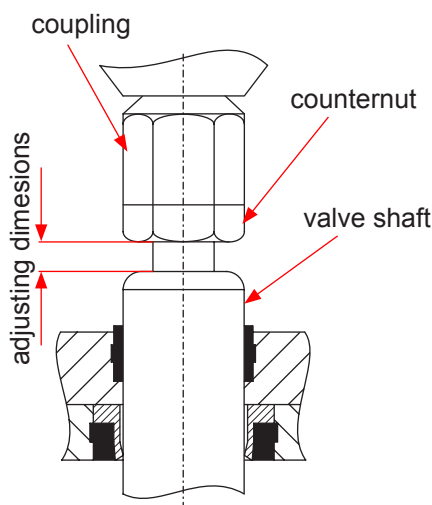
11.1. Dismantling from line system



Before start of 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 line pressure and drain lines if possible.
2. Shut off compressed air and remove compressed air supply.
3. Shut off control current and separate connecting line.
4. Release flange connection (hex. screws pos. 6 and nuts pos. 7).
5. Release connection flange/housing (hex. screws pos. 4).
6. Dismantle modulating valve from line.

11.2. Dismantling of valve to replace wear parts



1. See chapter 11.1. pos. 1. - 6.
2. Loosen fastening screws (15) and take valve insert with positioner and diaphragm actuator out of the housing (1). If necessary, screw two fastening screws (15) into the bores provided at the valve yoke (13) and push insert out of the housing.
3. Take valve seat (27) out of the housing (1).
4. Loosen coupling between actuator rod and valve shaft and pull valve shaft (25) out of the housing cover (9).
5. Release hexagon screw (14) and take housing cover from the valve yoke (13).
6. Remove seat seals (26) from valve shaft (cone).
Loosen head of coupling (22) and counternut (21) from valve shaft (25).

Note: Observe adjusting dimensions between counternut and valve shaft!

7. Remove housing seals (8) from valve seat (27) and from housing cover (9).
8. Remove shaft seal (10) and seat seal (11) from housing cover (9), remove bushing (12) from yoke (13).
9. Remove flange seals (3, 3.1) from housing (1) and dismantle housing flange (5).

11. Service Instructions

11.3. Disassembly of the valve for change of flow rate and characteristics



1. See chapter 11.2. pos. 1. - 4.
2. If, in case of change of flow rates, the diaphragm actuator (28) must be exchanged, loosen nut by means of hammer and chisel and take off actuator.
3. Loosen head of coupling (22) and counternut (21) from the valve shaft (25).

11. Service Instructions

11.4. Assembly of the valve and installation of new parts



Attention!

To ensure a trouble-free assembly and a high service life of all wear parts (seals, guides, etc.), all parts must be slightly greased. Sharp-edged tools (screwdrivers or similar tools) must not be used for the installation to avoid damage to the parts and provide their faultless function.

1. Place housing seal (8) onto the valve seat (27) and insert seat into housing (1).
2. Insert flange seals (3, 3.1) into the housing flange (1) and into the flange (5) and install the housing (1) in the line system by means of screws and nuts (4, 6, 7).

Attention! Provide for proper alignment of housing and line flanges!

3. Insert seat seal (26) into valve shaft (25)
(see item 12.).

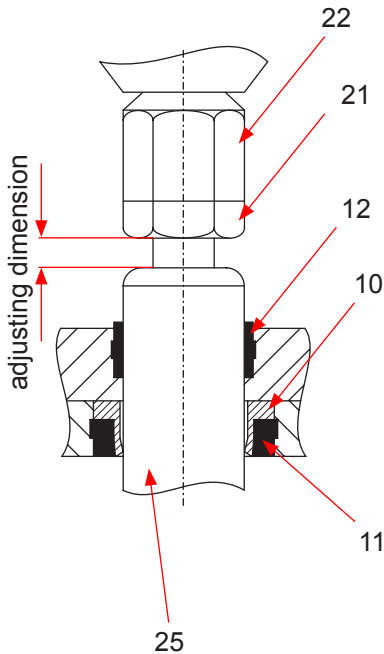
Attention! To prevent air from being trapped in the groove, use suitable tool to vent the groove.

4. Insert shaft seal (10), seat seal (11) into the housing cover (9). Insert bushing (12) into the yoke (13). Place housing seal (8) on the housing cover (9).
5. Tighten cover (9) with the valve yoke (13) by hand.
6. Insert valve shaft into the valve yoke. Screw the counternut (21) and the coupling (22) on the thread of the valve shaft (25) only now, as otherwise, the shaft seal (10, 11) would be destroyed by the hexagon of the coupling and the counternut.

Observe adjusting dimension!

Connect the valve shaft and actuator rod of the diaphragm actuator by means of the coupling.

7. Push valve insert into the housing and fasten it at the housing flange by means of the hexagon nuts (15).
8. Firmly tighten coupling and hexagon nuts (14).
9. Connect electric and pneumatic supply lines and re-initiate the positioner.



11. Service Instructions

11.5. Assembly of valve to change flow rates and characteristics

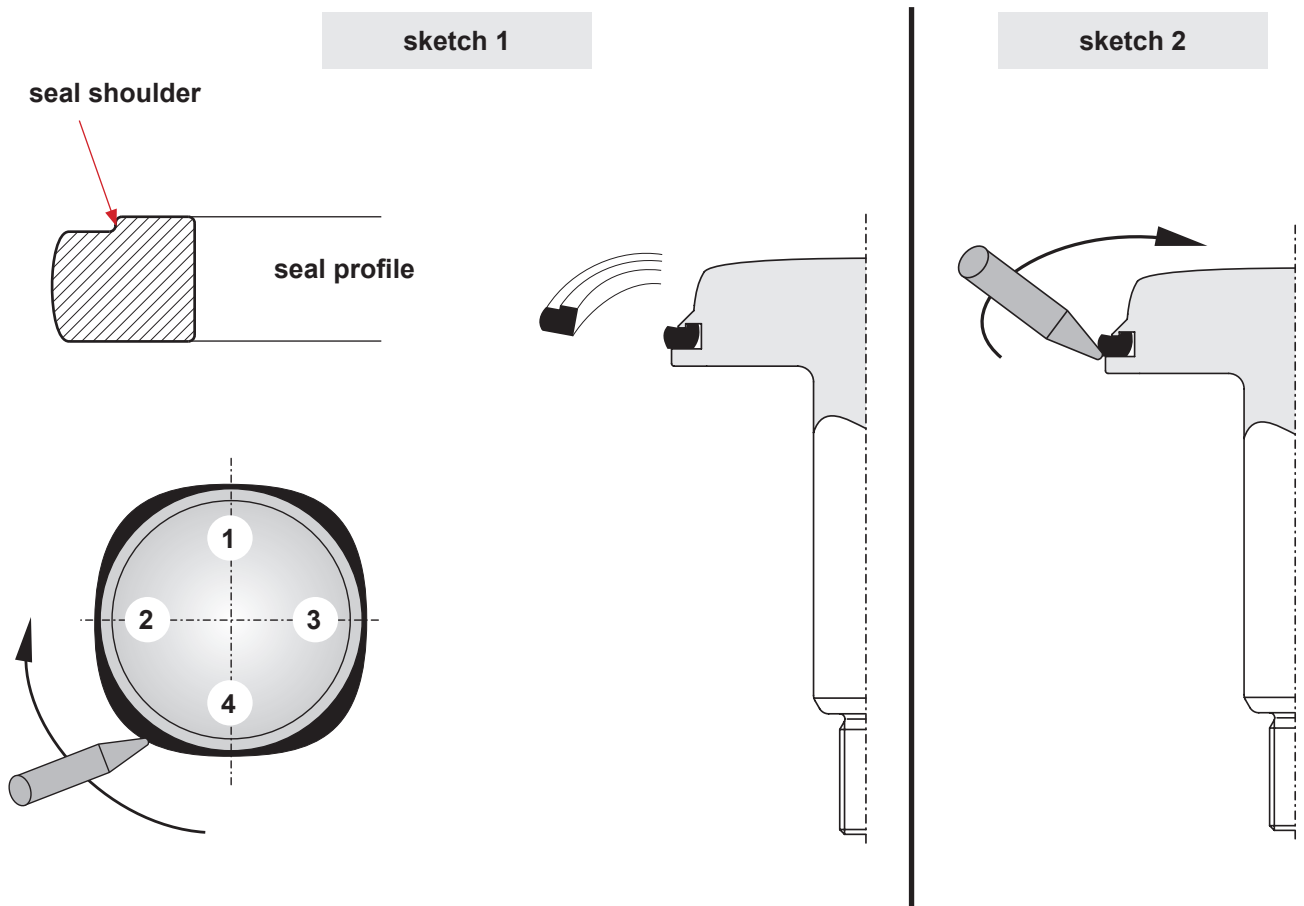
1. The available wear parts (seals and guides) have to be checked for their proper function. Damaged parts must be replaced immediately. (designations and ref.-No. see spare parts list pos. 14).
2. See chapter 11.4. pos. 1. - 6.
3. Place diaphragm actuator (28) on the valve yoke (13), screw the bolt onto the thread and firmly fasten it with hammer and chisel.
4. Firmly tighten the coupling.
5. Connect electric and pneumatic supply lines and re-initiate the positioner.

12. Installation of Seat Seal

12.1. Manual installation of seat seal (pos. 12).

1. Before assembly provide the seat seal with a thin layer of grease. The groove for the seat seal must not be greased.
2. Clamp the valve shaft into a vice.

The valve shaft must not be damaged.
Use protective cloth!
3. Press the slightly greased seal at four spots with the wide side to the front into the groove (**see sketch 1**).
4. Press the seal with an assembly tool (e.g. screwdriver with rounded edges) at four opposite spots **1-2, 3-4** into the groove (**see sketch 1**).
5. Proceed step by step while pressing the seal into the groove. Work alternately at the opposite spots of the seal groove. See to an even fit of the seat seal.
6. After the installation, press the pointed side of the assembly tool between the seal shoulder and the groove wall, driving around the complete groove wall. The groove base is vented and the seal shoulder snaps in place. (**see sketch 2**).



13. Trouble Shooting

Failure	Remedy
Leakage between upper housing flange and yoke flange	Replace housing seal.
Leakage between lower housing flange and counterflange	Replace housing seal and flange seal.
Leakage at lateral flange connection	Replace flange seal.
Positioner type 3277	
Air escapes from diaphragm actuator.	Check screw connection, if necessary replace rolling diaphragm. See Instruction Manual of diaphragm actuator: http://www.samson.de \ English \ Search
Positioner type 3730-11	
Valve does not regulate properly.	Check air connection and air pressure. Check electric connection and control signal. See Instruction Manual of positioner for trouble shooting: http://www.samson.de \ English \ Search

14. Spare parts list

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:

- required number of parts
- reference number
- designation.

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. - Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. - Ex II -/2G IIB TX
1-4 Zoll / inch

Datum: 25.02.15
Name: Trytko
Geprüft: Knöchel

Datum:
Name:
Geprüft:

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APV
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Germany

RN ATEX 01.170.1

pos. item	Menge quantity	Beschreibung description	Material	1"	1,5"	2"	2,5"	3"	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	1	Gehäuse Housing RG41-1FN1	1.4404	15-56-316/47 H158856	15-56-415/47 H158857	15-56-465/47 H158858	15-56-515/47 H158859	15-56-565/47 H158860	15-56-665/47 H158861	
2	1	Flansch Flange FGX1	1.4404	09-51-222/47 H158843	09-51-223/47 H158846	09-51-224/47 H158847	09-51-225/47 H158848	09-51-226/47 H158849	09-51-227/47 H158850	
	1	Dichtung Seal FGN1	EPDM FDA-konform	58-32-305/93 H77284	58-32-405/93 H77296	58-32-427/93 H77303	58-32-505/93 H77318	58-32-555/93 H77332	58-32-655/93 H77343	
3	1	Dichtung Seal FGN1	FPM FDA-konform	58-32-305/73 H77283	58-32-405/73 H77295	58-32-427/73 H77302	58-32-505/73 H77317	58-32-555/73 H77331	58-32-655/73 H77342	
	1	Dichtung Seal FGN1	HNBR FDA-konform	58-32-305/33 H172140	58-32-405/33 H172141	58-32-427/33 H172132	58-32-505/33 H172143	58-32-555/33 H172144	58-32-655/33 H172145	
	1	Dichtung Seal FGN1	VMQ FDA-konform	58-32-305/13 H77282	58-32-405/13 H77294	58-32-427/13 H77301	58-32-505/13 H77316	58-32-555/13 H77330	58-32-655/13 H77341	
	1	Dichtung Seal FGN1	EPDM FDA-konform	58-32-277/93 H77280	58-32-377/93 77292	58-32-427/93 H77303	58-32-477/93 H77314	58-32-555/93 H77332	58-32-627/93 H77339	
3.1	1	Dichtung Seal FGN1	FPM FDA-konform	58-32-277/73 H77279	58-32-377/73 H77291	58-32-427/73 H77302	58-32-477/73 H77313	58-32-555/73 H77331	58-32-627/73 H77338	
	1	Dichtung Seal FGN1	HNBR FDA-konform	58-32-277/33 H172130	58-32-377/33 H172131	58-32-427/33 H172132	58-32-477/33 H172133	58-32-555/33 H172144	58-32-627/33 H172135	
	1	Dichtung Seal FGN1	VMQ FDA-konform	58-32-277/13 H77278	58-32-377/13 H77290	58-32-427/13 H77301	58-32-477/13 H77312	58-32-555/13 H77330	58-32-627/13 H77337	
4	4	Skt. Schraube Hex. screw DIN EN 24017	A2-70	65-01-083/15 4xM8x20 H78776						65-01-132/15 8xM10x20 H78809
5	1	Flansch Flange FNX1	1.4404	09-51-760/47 H147044	09-51761/47 H147046	09-51-762/47 H147047	09-51-763/47 H147048	09-51-207/47 H158889	09-51-765/47 H147049	
6		Skt. Schraube Hex. Screw DIN EN 24017	A2-70	65-01-085/15 4xM8x28 H78778						65-01-085/15 8xM8x28 H78778
7		Skt. Mutter Hex. nut DIN EN 24032	A2	65-50-060/15 4x M8 H79281						65-50-060/15 8x M8 H79281
8	2	Gehäusedichtung Housing seal	EPDM FDA-konform	58-33-292/93 H77439	58-33-392/93 H77464	58-33-442/93 H77488	58-33-492/93 H77512	58-33-567/93 H77558	58-33-642/93 H77583	

Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm² digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. - Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm², digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. - Ex II -/2G IIB TX
1-4 Zoll / inch

Datum:	25.02.15
Name:	Trytko
Geprüft:	Knöchel
Datum:	
Name:	
Geprüft:	

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RN ATEX 01.170.1	

Datum:	25.02.15
Name:	Trytko
Geprüft:	Knöchel
Datum:	
Name:	
Geprüft:	

pos. item	Menge quantity	Beschreibung description	Material	1"	1,5"	2"	2,5"	3"	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.
20	1	Hubanzeige Stroke indicator 15mm	1.4301						
21	1	Kontermutter Mating nut M10x1	1.4301						
22	1	Kupplungskopf klein for actuator area 120cm ² für Antr.-Fläche	1.4301						
	1	Kupplungskopf groß for actuator area 240.350.700cm ² für Antr.-Fläche	1.4301						
23	1	ATEX-Typenschild - Ex II -/2G IIB TX ATEX-type label - Ex II -/2G IIB TX	Polyesterfolie						
24	1	Typenschild APV-Ventile CE Type label APV valve CE	Polyesterfolie AF 50 PS-EB						

Pneumatischer Stellantrieb MAT 3277+IP 3730 (Pos. 28) siehe RN ATEX 01.170.13-4
Pneumatischer Stellantrieb MAT 3277+IP 3730 (item. 28) see RN ATEX 01.170.13-4

Pos. 3, 3.1, 8, 10, 11, 12, 26 nur im kompletten Dichtungssatz erhältlich Item 3, 3.1, 8, 10, 11, 12, 26 available as complete seal kits only									
Dichtungssatz Seal kit				58-34-343/00 H325392	58-34-344/00 H319788	58-34-345/00 H321321	58-34-346/00 H326174	58-34-347/00 H325402	58-34-348/00
Dichtungssatz Seal kit				58-34-343/01 H174415	58-34-344/01 H174416	58-34-345/01 H174417	58-34-346/01 H174418	58-34-347/01 H174419	58-34-348/01 H174420
Dichtungssatz Seal kit				58-34-343/02 H325393	58-34-344/02 H325456	58-34-345/02 H325426	58-34-346/02	58-34-347/02	58-34-348/02
Dichtungssatz Seal kit				58-34-343/06 H315820	58-34-344/06 H3320185	58-34-345/06 H316681	58-34-346/06 H320186	58-34-347/06 H325403	58-34-348/06 H320187

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX
1-4 Zoll / inch

Datum:	25.02.15
Name:	Trytko
Geprüft:	Knöchel
Datum:	
Name:	
Geprüft:	



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RN ATEX 01.170.1

pos. item	Menge quantity	Beschreibung description	Material	2"					
				4,0	6,3	10	16	25	40
			WS-Nr. ref.-no.	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		Schaft-lineare Kennlinie L *	1.4404				15-25-056/42 H169153	15-25-036/42 H175757	15-25-013/42 H176315
1		Schaft-flow characteristics -linear L *	1.4404	15-25-046/42 H159478	15-25-047/42 H159479	15-25-048/42 H159480	15-25-049/42 H159481	15-25-050/42 H159482	15-25-050/42 H159482
25		Schaft-lineare Kennlinie LD *	1.4404	15-25-590/42 H326212	15-25-139/42 H207739	15-25-138/42 H207038	15-25-069/42 H163545	15-25-072/42 H333827	15-25-072/42 H333827
1		Schaft-gleichprozentige Kennlinie G *	1.4404	15-25-025/42 H159142	15-25-026/42 H159143	15-25-027/42 H159144	15-25-028/42 H159145	15-25-029/42 H159146	15-25-030/42 H159147
1		Schaft-gleichprozentige Kennlinie GD *	1.4404	58-33-294/93 H77445	58-33-294/93 H77445	58-33-394/93 H77470	58-33-394/93 H77494	58-33-444/93 H77494	58-33-444/93 H77494
1		Tellerdichtung Seat seal	EPDM FDA-konform	58-33-294/73 H77444	58-33-294/73 H77444	58-33-394/33 H172175	58-33-394/33 H172175	58-33-444/33 H165709	58-33-444/33 H165709
26		Tellerdichtung Seat seal	FPM FDA-konform	58-33-294/13 H77443	58-33-294/13 H77443	58-33-394/13 H77468	58-33-394/13 H77468	58-33-444/13 H77492	58-33-444/13 H77492
1		Tellerdichtung Seat seal	HNBR FDA-konform						
1		Tellerdichtung Seat seal	VMQ FDA-konform						
1		Ventilsitz metallisch dichtend Valve seat metal sealing	1.4404						
27		Ventilsitz Valve seat	1.4404	15-36-041/42 H202927	15-36-062/42 H33481	15-36-064/42 H33482	15-36-064/42 H33482	15-36-066/42 H33483	15-36-066/42 H33483
27.1		Ventilsitz mit Lochkäfig (geräuscharm) Valve seat with punched cage (low noise)	1.4404	15-36-034/47 H149114	15-36-034/47 H149114	15-36-437/47 H141521	15-36-437/47 H141521	15-36-011/47 H144859	15-36-011/47 H144859
*		L-lineare Kennlinie-metall dichtend / L-characteristics linear -metal sealing							
*		LD-lineare Kennlinie-weich dichtend / LD-characteristics linear -soft sealing							
		G-gleichprozentige Kennlinie-metall dichtend / G-characteristics equal percentage-metal sealing							
		GD-gleichprozentige Kennlinie-weich dichtend / GD-characteristics equal percentage-soft sealing							

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX
1-4 Zoll / inch

Datum: 25.02.15
 Name: Trytko
 Geprüft: Knöchel



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RN ATEX 01.170.1

pos. item	Menge quantity	Beschreibung description	Material	2,5"			3"		
				16 WS-Nr. ref.-no.	25 WS-Nr. ref.-no.	40 WS-Nr. ref.-no.	63 WS-Nr. ref.-no.	16 WS-Nr. ref.-no.	25 WS-Nr. ref.-no.
1		Schaft-lineare Kennlinie L *	1.4404	15-25-056/42 H169153	15-25-036/42 H175757	15-25-013/42 H176315		15-25-056/42 H169153	15-25-036/42 H175757
25	1	Schaft-lineare Kennlinie LD *	1.4404	15-25-048/42 H159480	15-25-049/42 H159481	15-25-050/42 H159482	15-25-587/42 H321259	15-25-048/42 H159480	15-25-049/42 H159481
	1	Schaft-gleichprozentige Kennlinie G *	1.4404	15-25-602/42 H331585	15-25-069/42 H163545	15-25-072/42 H333827		15-25-602/42 H331585	15-25-069/42 H163545
	1	Schaft-gleichprozentige Kennlinie GD *	1.4404	15-25-028/42 H159145	15-25-029/42 H159146	15-25-030/42 H159147	15-25-588/42 H321260	15-25-028/42 H159145	15-25-029/42 H159146
	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-394/93 H77470		58-33-444/93 H77494	58-33-494/93 H77518	58-33-394/93 H77470	
	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-394/73 H77469		58-33-444/73 H77493	58-33-494/73 H77517	58-33-394/73 H77469	
26	1	Tellerdichtung Seat seal	HNBR FDA-konform	58-33-394/33 H172175		58-33-444/33 H165709	58-33-494/33 H172178	58-33-394/33 H172175	
	1	Tellerdichtung Seat seal	VMQ FDA-konform	58-33-394/13 H77468		58-33-444/13 H77492	58-33-494/13 H77516	58-33-394/13 H77468	
	1	Ventilsitz metallisch dichtend Valve seat metal sealing	1.4404						
27	1	Ventilsitz Valve seat	1.4404	15-36-069/42 H326912		15-36-075/42 H326914	15-36-072/42 H33486	15-36-154/42 H332539	
27.1	1	Ventilsitz mit Lochkäfig (geräuscharm) Valve seat with punched cage (low noise)	1.4404	15-36-071/47 H326913		15-36-077/47 H326915	15-36-016/47 H148263		
	*	L-lineare Kennlinie-metall dichtend / L-characteristics linear -metal sealing							
	*	LD-lineare Kennlinie-weich dichtend / LD-characteristics linear -soft sealing							
		G-gleichprozentige Kennlinie-metall dichtend / G-characteristics equal percentage-metal sealing							
		GD-gleichprozentige Kennlinie-weich dichtend / GD-characteristics equal percentage-soft sealing							

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX
1-4 Zoll / inch

Datum: 25.02.15
Name: Trytko
Geprüft: Knöchel

Datum:
Name:
Geprüft:



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RN ATEX 01.170.1

pos. item	Menge quantity	Beschreibung description	Material	3"			4"		
				40	63	80	63	100	160 Hub:15mm
			WS-Nr. ref.-no.	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		Schaft-lineare Kennlinie L *	1.4404	15-25-013/42 H176315					
1		Schaft-lineare Kennlinie LD *	1.4404	15-25-050/42 H159482	15-25-051/42 H159483	15-25-054/42 H159763	15-25-051/42 H159483	15-25-052/42 H159309	15-25-055/42 H167867
1		Schaft-gleichprozentige Kennlinie G *	1.4404	15-25-072/42 H333827	15-25-073/42 H333843				
1		Schaft-gleichprozentige Kennlinie GD *		15-25-030/42 H159147	15-25-031/42 H159148	15-25-034/42 H159762	15-25-031/42 H159148	15-25-032/42 H159149	15-25-035/42 H175422
1		Tellerdichtung	EPDM	58-33-444/93 H77494	58-33-494/93 H77518	58-33-569/93 H77564	58-33-494/93 H77518	58-33-544/93 H77549	58-33-644/93 H77589
1		Tellerdichtung	FPM	58-33-444/73 H77493	58-33-494/73 H77517	58-33-569/73 H77563	58-33-494/73 H77517	58-33-544/73 H77548	58-33-644/73 H77588
1		Tellerdichtung	HNBR	58-33-444/33 H165709	58-33-494/33 H172178	58-33-569/33 H176688	58-33-494/33 H172178	58-33-544/33 H172180	58-33-644/33 H172183
1		Tellerdichtung	VMQ	58-33-444/13 H77492	58-33-494/13 H77516	58-33-569/13 H77562	58-33-494/13 H77516	58-33-544/13 H77547	58-33-644/13 H77587
1		Ventilsitz metallisch dichtend							
1		Valve seat metal sealing							
1		Ventilsitz	1.4404	15-36-138/42 H33511	15-36-139/42 H147062	15-36-140/42 H33512	15-36-079/42 H33490	15-36-042/42 H125799	15-36-043/42 H125798
1		Valve seat							
1		Ventilsitz mit Lochkäfig (geräuscharm)	1.4404	15-36-021/47 H149597	15-36-022/47 H149599	15-36-115/47 H160041	15-36-020/47 H149005	15-36-637/47 H141526	15-36-033/47 H152311
*		L-lineare Kennlinie-metall dichtend / L-characteristics linear -metal sealing							
*		LD-lineare Kennlinie-weich dichtend / LD-characteristics linear -soft sealing							
		G-gleichprozentige Kennlinie-metall dichtend / G-characteristics equal percentage-metal sealing							
		GD-gleichprozentige Kennlinie-weich dichtend / GD-characteristics equal percentage-soft sealing							

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX
DN 25-150

Datum: 14.04.15
 Name: Trytko
 Geprüft: Knöchel

Datum:
 Name:
 Geprüft:

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RN ATEX 01.170.0



pos. item	Menge quantity	Beschreibung description	Material	DN25	DN40	DN50	DN65	DN80	DN100
10	1	Schaftdichtung Shaft seal	Turcon MF6						
	1	Schaftdichtung Shaft seal	PTFE						58-33-154/23 H200020
	1	Tellerdichtung Seat seal	EPDM FDA-konform			58-33-293/93 H77442			
11	1	Tellerdichtung Seat seal	FPM FDA-konform			58-33-293/73 H77441			
	1	Tellerdichtung Seat seal	HNBR FDA-konform			58-33-293/33 H170176			
	1	Tellerdichtung Seat seal	VMQ FDA-konform			58-33-293/13 H77440			
	1	Tellerdichtung Seat seal	EPDM FDA-konform						58-33-393/93 H77467
	1	Tellerdichtung Seat seal	FPM FDA-konform						58-33-393/73 H77466
	1	Tellerdichtung Seat seal	HNBR FDA-konform						58-33-393/33 H166676
	1	Tellerdichtung Seat seal	VMQ FDA-konform						58-33-393/13 H77465
12	1	Führungsbuchse Bushing	PTFE 25% Kohle			08-01-178/23 H207154			
	1	Führungsbuchse Bushing	PTFE 25% Kohle						08-01-065/23 H334067
13	1	Laterne Yoke	1.4308	16-40-108/17 H157564	16-40-109/17 H157565	16-40-110/17 H157567	16-40-111/17 H157568	16-40-112/17 H157571	16-40-113/17 H157572
	1	Laterne Yoke	1.4308						16-40-133/17 H319975
14	1	Skt. Schraube Hex. Screw	A2-70	65-01-056/13 M6x16 H78751			65-01-081/15 M8x16 H78772		
14.1		Scheibe Wascher	A2						

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht schriftlich zugestanden. Verstoß verpflichtet zum Schadensersatz und kann strafrechtliche Folgen haben (Paragraf 18 UWG, Paragraf 106 UrnG). Eigentum und alle Rechte, auch für Patenterteilung und Gebrauchsmustererteilung, vorbehalten. SPX FLOW, Germany

Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. - Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. - Ex II -/2G IIB TX
DN 25-150

Datum: 14.04.15
 Name: Trytko
 Geprüft: Knöchel



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RN ATEX 01.170.0

pos. item	Menge quantity	Beschreibung description	Material	DN125	DN150	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
				WS-Nr. ref.-no.	WS-Nr. ref.-no.				
10	1	Schafdichtung Shaft seal	PTFE	58-33-150/23 H161940	/	/	/	/	/
	1	Schafdichtung Shaft seal	PTFE	58-33-154/23 H200020	/	/	/	/	/
11	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-293/93 H77442	/	/	/	/	/
	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-293/73 H77441	/	/	/	/	/
	1	Tellerdichtung Seat seal	HNBR FDA-konform	58-33-293/33 H170176	/	/	/	/	/
	1	Tellerdichtung Seat seal	VMQ FDA-konform	58-33-293/13 H77440	/	/	/	/	/
	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-393/93 H77467	/	/	/	/	/
	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-393/73 H77466	/	/	/	/	/
12	1	Führungsbuchse Bushing	PTFE 25% Kohle	08-01-178/23 H207154	/	/	/	/	/
	1	Führungsbuchse Bushing	PTFE 25% Kohle	08-01-065/23 H334067	/	/	/	/	/
13	1	Laterne Yoke	1.4301	16-40-114/17 H157574	/	/	/	/	/
	1	Laterne Yoke	1.4301	16-40-001/17 H202128	16-40-118/17 H205823	/	/	/	/
14	1	Skt. Schraube Hex. Screw	A2-70	65-01-083/15 M8x20	H78776	/	/	/	/
14.1	1	Scheibe Wascher	A2	67-01-022/15 H79594	/	/	/	/	/

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX
DN 25-150

Datum:	14.04.15
Name:	Trytko
Geprüft:	Knöchel
Datum:	
Name:	
Geprüft:	

Blatt	8	von	17
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RN ATEX 01.170.0

pos. item	Menge quantity	Beschreibung description	Material	DN125 WS-Nr. ref.-no.	DN150 WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
15		Skt. Schraube Hex. Screw DIN EN 24017	A2-70	65-01-131/15 8xM10x18 H78807				
16	1	Winkelverschraub. G1/8 ø6mm Elbow union schwenkbar / slewable		08-60-750/93 H208825				
17	1	Reduziernippel G1/4" G1/8" Red. nipple	MS58	09-14-040/93 H17018				
18	1	Befestigungsblech für Hubanzeige Mounting plate for stroke indicator	1.4301	08-29-292/13 H161763				
19	2	Flachkopfschraube Pan head screw DIN EN ISO 1580	1.4301	65-04-307/13 M5x12 H127391				
20	1	Hubanzeige Hub: 15mm Stroke indicator	1.4301	08-29-290/13 H161761				
	1	Hubanzeige Hub: 30mm Stroke indicator	1.4301	08-29-291/13 H161762				
21	1	Kontermutter Mating nut Hub: 15mm M10x1	1.4301	21-50-025/15 H162483				
	1	Kontermutter Mating nut Hub: 30mm M14x1,5	1.4301	21-50-026/15 H205881				
22	1	Kupplungskopf klein für Act.-Fläche for actuator area 120cm2	1.4301					
	1	Kupplungskopf groß für Act.-Fläche for actuator area 240.350cm2	1.4301	08-52-281/15 H162485				
23	1	Kupplungsstück für Act.-Fläche for actuator area 700cm2	1.4301	21-50-030/15 H205827				
	1	ATEX-Typenschild -Ex II -/2G IIB TX ATEX-type label -Ex II -/2G IIB TX	Polyesterfolie	08-29-381/93 H329934				
24	1	Typenschild APV-Ventile CE Type label APV valve CE	Polyesterfolie AF 50 PS-EB	08-29-281/93 H155642				
Pneumatischer Stellantrieb MAT 3277+IP 3730 (Pos. 28) siehe RN ATEX 01.170.13-4								
Pneumatischer positioner MAT 3277+IP 3730 (item. 28) see RN ATEX 01.170.13-4								

Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX

Datum: 14.04.15
 Name: Trytko
 Geprüft: Knöchel

Datum:
 Name:
 Geprüft:
 Blatt 10 von 17



RN ATEX 01.170.0

DN25

pos. item	Menge quantity	Beschreibung description	Material	0,25				0,4				0,63				1,0				1,6				2,5																																																																																																																																																																																																																																																																																																																																																																																																												
				WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	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		Schaft-lineare Kennlinie L *	1.4404	15-25-039/42 H160658	15-25-040/42 H160666	15-25-041/42 H160668	15-25-042/42 H160669	15-25-043/42 H159401	15-25-044/42 H159401	15-25-045/42 H160668	15-25-046/42 H160666	15-25-047/42 H160668	15-25-048/42 H160669	15-25-049/42 H159401	15-25-050/42 H159401	15-25-051/42 H160668	15-25-052/42 H160669	15-25-053/42 H159401	15-25-054/42 H159401	15-25-055/42 H160668	15-25-056/42 H160669	15-25-057/42 H159401	15-25-058/42 H159401	15-25-059/42 H160668	15-25-060/42 H160669	15-25-061/42 H159401	15-25-062/42 H159401	15-25-063/42 H160668	15-25-064/42 H160669	15-25-065/42 H159401	15-25-066/42 H159401	15-25-067/42 H160668	15-25-068/42 H160669	15-25-069/42 H159401	15-25-070/42 H159401	15-25-071/42 H160668	15-25-072/42 H160669	15-25-073/42 H159401	15-25-074/42 H159401	15-25-075/42 H160668	15-25-076/42 H160669	15-25-077/42 H159401	15-25-078/42 H159401	15-25-079/42 H160668	15-25-080/42 H160669	15-25-081/42 H159401	15-25-082/42 H159401	15-25-083/42 H160668	15-25-084/42 H160669	15-25-085/42 H159401	15-25-086/42 H159401	15-25-087/42 H160668	15-25-088/42 H160669	15-25-089/42 H159401	15-25-090/42 H159401	15-25-091/42 H160668	15-25-092/42 H160669	15-25-093/42 H159401	15-25-094/42 H159401	15-25-095/42 H160668	15-25-096/42 H160669	15-25-097/42 H159401	15-25-098/42 H159401	15-25-099/42 H160668	15-25-100/42 H160669	15-25-101/42 H159401	15-25-102/42 H159401	15-25-103/42 H160668	15-25-104/42 H160669	15-25-105/42 H159401	15-25-106/42 H159401	15-25-107/42 H160668	15-25-108/42 H160669	15-25-109/42 H159401	15-25-110/42 H159401	15-25-111/42 H160668	15-25-112/42 H160669	15-25-113/42 H159401	15-25-114/42 H159401	15-25-115/42 H160668	15-25-116/42 H160669	15-25-117/42 H159401	15-25-118/42 H159401	15-25-119/42 H160668	15-25-120/42 H160669	15-25-121/42 H159401	15-25-122/42 H159401	15-25-123/42 H160668	15-25-124/42 H160669	15-25-125/42 H159401	15-25-126/42 H159401	15-25-127/42 H160668	15-25-128/42 H160669	15-25-129/42 H159401	15-25-130/42 H159401	15-25-131/42 H160668	15-25-132/42 H160669	15-25-133/42 H159401	15-25-134/42 H159401	15-25-135/42 H160668	15-25-136/42 H160669	15-25-137/42 H159401	15-25-138/42 H159401	15-25-139/42 H160668	15-25-140/42 H160669	15-25-141/42 H159401	15-25-142/42 H159401	15-25-143/42 H160668	15-25-144/42 H160669	15-25-145/42 H159401	15-25-146/42 H159401	15-25-147/42 H160668	15-25-148/42 H160669	15-25-149/42 H159401	15-25-150/42 H159401	15-25-151/42 H160668	15-25-152/42 H160669	15-25-153/42 H159401	15-25-154/42 H159401	15-25-155/42 H160668	15-25-156/42 H160669	15-25-157/42 H159401	15-25-158/42 H159401	15-25-159/42 H160668	15-25-160/42 H160669	15-25-161/42 H159401	15-25-162/42 H159401	15-25-163/42 H160668	15-25-164/42 H160669	15-25-165/42 H159401	15-25-166/42 H159401	15-25-167/42 H160668	15-25-168/42 H160669	15-25-169/42 H159401	15-25-170/42 H159401	15-25-171/42 H160668	15-25-172/42 H160669	15-25-173/42 H159401	15-25-174/42 H159401	15-25-175/42 H160668	15-25-176/42 H160669	15-25-177/42 H159401	15-25-178/42 H159401	15-25-179/42 H160668	15-25-180/42 H160669	15-25-181/42 H159401	15-25-182/42 H159401	15-25-183/42 H160668	15-25-184/42 H160669	15-25-185/42 H159401	15-25-186/42 H159401	15-25-187/42 H160668	15-25-188/42 H160669	15-25-189/42 H159401	15-25-190/42 H159401	15-25-191/42 H160668	15-25-192/42 H160669	15-25-193/42 H159401	15-25-194/42 H159401	15-25-195/42 H160668	15-25-196/42 H160669	15-25-197/42 H159401	15-25-198/42 H159401	15-25-199/42 H160668	15-25-200/42 H160669	15-25-201/42 H159401	15-25-202/42 H159401	15-25-203/42 H160668	15-25-204/42 H160669	15-25-205/42 H159401	15-25-206/42 H159401	15-25-207/42 H160668	15-25-208/42 H160669	15-25-209/42 H159401	15-25-210/42 H159401	15-25-211/42 H160668	15-25-212/42 H160669	15-25-213/42 H159401	15-25-214/42 H159401	15-25-215/42 H160668	15-25-216/42 H160669	15-25-217/42 H159401	15-25-218/42 H159401	15-25-219/42 H160668	15-25-220/42 H160669	15-25-221/42 H159401	15-25-222/42 H159401	15-25-223/42 H160668	15-25-224/42 H160669	15-25-225/42 H159401	15-25-226/42 H159401	15-25-227/42 H160668	15-25-228/42 H160669	15-25-229/42 H159401	15-25-230/42 H159401	15-25-231/42 H160668	15-25-232/42 H160669	15-25-233/42 H159401	15-25-234/42 H159401	15-25-235/42 H160668	15-25-236/42 H160669	15-25-237/42 H159401	15-25-238/42 H159401	15-25-239/42 H160668	15-25-240/42 H160669	15-25-241/42 H159401	15-25-242/42 H159401	15-25-243/42 H160668	15-25-244/42 H160669	15-25-245/42 H159401	15-25-246/42 H159401	15-25-247/42 H160668	15-25-248/42 H160669	15-25-249/42 H159401	15-25-250/42 H159401	15-25-251/42 H160668	15-25-252/42 H160669	15-25-253/42 H159401	15-25-254/42 H159401	15-25-255/42 H160668	15-25-256/42 H160669	15-25-257/42 H159401	15-25-258/42 H159401	15-25-259/42 H160668	15-25-260/42 H160669	15-25-261/42 H159401	15-25-262/42 H159401	15-25-263/42 H160668	15-25-264/42 H160669	15-25-265/42 H159401	15-25-266/42 H159401	15-25-267/42 H160668	15-25-268/42 H160669	15-25-269/42 H159401	15-25-270/42 H159401	15-25-271/42 H160668	15-25-272/42 H160669	15-25-273/42 H159401	15-25-274/42 H159401	15-25-275/42 H160668	15-25-276/42 H160669	15-25-277/42 H159401	15-25-278/42 H159401	15-25-279/42 H160668	15-25-280/42 H160669	15-25-281/42 H159401	15-25-282/42 H159401	15-25-283/42 H160668	15-25-284/42 H160669	15-25-285/42 H159401	15-25-286/42 H159401	15-25-287/42 H160668	15-25-288/42 H160669	15-25-289/42 H159401	15-25-290/42 H159401	15-25-291/42 H160668	15-25-292/42 H160669	15-25-293/42 H159401	15-25-294/42 H159401	15-25-295/42 H160668	15-25-296/42 H160669	15-25-297/42 H159401	15-25-298/42 H159401	15-25-299/42 H160668	15-25-300/42 H160669	15-25-301/42 H159401	15-25-302/42 H159401	15-25-303/42 H160668	15-25-304/42 H160669	15-25-305/42 H159401	15-25-306/42 H159401	15-25-307/42 H160668	15-25-308/42 H160669	15-25-309/42 H159401	15-25-310/42 H159401	15-25-311/42 H160668	15-25-312/42 H160669	15-25-313/42 H159401	15-25-314/42 H159401	15-25-315/42 H160668	15-25-316/42 H160669	15-25-317/42 H159401	15-25-318/42 H159401	15-25-319/42 H160668	15-25-320/42 H160669	15-25-321/42 H159401	15-25-322/42 H159401	15-25-323/42 H160668	15-25-324/42 H160669	15-25-325/42 H159401	15-25-326/42 H159401	15-25-327/42 H160668	15-25-328/42 H160669	15-25-329/42 H159401	15-25-330/42 H159401	15-25-331/42 H160668	15-25-332/42 H160669	15-25-333/42 H159401	15-25-334/42 H159401	15-25-335/42 H160668	15-25-336/42 H160669	15-25-337/42 H159401	15-25-338/42 H159401	15-25-339/42 H160668	15-25-340/42 H160669	15-25-341/42 H159401	15-25-342/42 H159401	15-25-343/42 H160668	15-25-344/42 H160669	15-25-345/42 H159401	15-25-346/42 H159401	15-25-347/42 H160668	15-25-348/42 H160669	15-25-349/42 H159401	15-25-350/42 H159401	15-25-351/42 H160668	15-25-352/42 H160669	15-25-353/42 H159401	15-25-354/42 H159401	15-25-355/42 H160668	15-25-356/42 H160669	15-25-357/42 H159401	15-25-358/42 H159401	15-25-359/42 H160668	15-25-360/42 H160669	15-25-361/42 H159401	15-25-362/42 H159401	15-25-363/42 H160668	15-25-364/42 H160669	15-25-365/42 H159401	15-25-366/42 H159401	15-25-367/42 H160668	15-25-368/42 H160669	15-25-369/42 H159401	15-25-370/42 H159401	15-25-371/42 H160668	15-25-372/42 H160669	15-25-373/42 H159401	15-25-374/42 H159401	15-25-375/42 H160668	15-25-376/42 H160669	15-25-377/42 H159401	15-25-378/42 H159401	15-25-379/42 H160668	15-25-380/42 H160669	15-25-381/42 H159401	15-25-382/42 H159401	15-25-383/42 H160668	15-25-384/42 H160669	15-25-385/42 H159401	15-25-386/42 H159401	15-25-387/42 H160668	15-25-388/42 H160669	15-25-389/42 H159401	15-25-390/42 H159401	15-25-391/42 H160668	15-25-392/42 H160669	15-25-393/42 H159401	15-25-394/42 H159401	15-25-395/42 H160668	15-25-396/42 H160669	15-25-397/42 H159401	15-25-398/42 H159401	15-25-399/42 H160668	15-25-400/42 H160669	15-25-401/42 H159401	15-25-402/42 H159401	15-25-403/42 H160668	15-25-404/42 H160669	15-25-405/42 H159401	15-25-406/42 H159401	15-25-407/42 H160668	15-25-408/42 H160669	15-25-409/42 H159401	15-25-410/42 H159401	15-25-411/42 H160668	15-25-412/42 H160669	15-25-413/42 H159401	15-25-414/42 H159401	15-25-415/42 H160668	15-25-416/42 H160669	15-25-417/42 H159401	15-25-418/42 H159401	15-25-419/42 H160668	15-25-420/42 H160669	15-25-421/42 H159401	15-25-422/42 H159401	15-25-423/42 H160668	15-25-424/42 H160669	15-25-425/42 H159401	15-25-426/42 H159401	15-25-427/42 H160668	15-25-428/42 H160669	15-25-429/42 H159401	15-25-430/42 H159401	15-25-431/42 H160668	15-25-432/42 H160669	15-25-433/42 H159401	15-25-434/42 H159401	15-25-435/42 H160668	15-25-436/42 H160669	15-25-437/42 H159401	15-25-438/42 H159401	15-25-439/42 H160668	15-25-440/42 H160669	15-25-441/42 H159401	15-25-442/42 H159401	15-25-443/42 H160668	15-25-444/42 H160669	15-25-445/42 H159401	15-25-446/42 H159401	15-25-447/42 H160668	15-25-448/42 H160669	15-25-449/42 H159401	15-25-450/42 H159401	15-25-451/42 H160668	15-25-452/42 H160669	15-25-453/42 H159401	15-25-454/42 H159401	15

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht schriftlich zugestanden. Verstöß verpflichtet zum Schadensersatz und kann strafrechtliche Folgen haben (Paragraf 18 UWG, Paragraf 106 UrhG). Eigentum und alle Rechte, auch für Patenterteilung und Gebrauchsmustereintragung, vorbehalten. SPX FLOW, Germany

Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX
DN 25-150

Datum: 14.04.15
 Name: Trytko
 Geprüft: Knöchel



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RN ATEX 01.170.0

pos. item	Menge quantity	Beschreibung description	Material	40			50		
				4,0 WS-Nr. ref.-no.	6,3 WS-Nr. ref.-no.	10 WS-Nr. ref.-no.	16 WS-Nr. ref.-no.	25 WS-Nr. ref.-no.	WS-Nr. ref.-no.
1	1	Schaft-lineare Kennlinie L *	1.4404	15-25-045/42 H159477	15-25-046/42 H159478	15-25-047/42 H159479	15-25-056/42 H169153	15-25-036/42 H175757	
25	1	Schaft-lineare Kennlinie LD *	1.4404	15-25-590/42 H326212	15-25-139/42 H207739	15-25-138/42 H207038	15-25-048/42 H159480	15-25-049/42 H159481	
	1	Schaft-gleichprozentige Kennlinie G *	1.4404	15-25-025/42 H159142	15-25-026/42 H159143	15-25-027/42 H159144	15-25-602/42 H331585	15-25-069/42 H163545	15-25-137/42 H202929
	1	Schaft-gleichprozentige Kennlinie GD *	1.4404				15-25-028/42 H159145	15-25-029/42 H159146	
	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-294/93 H77445			58-33-394/93 H77470		
	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-294/73 H77444			58-33-394/73 H77469		
26	1	Tellerdichtung Seat seal	HNBR FDA-konform	58-33-294/33 H172173			58-33-394/33 H172175		
	1	Tellerdichtung Seat seal	VMQ FDA-konform	58-33-294/13 H77443			58-33-394/13 H77468		
	1	Ventilsitz metallisch dichtend Valve seat metal sealing	1.4404						
27	1	Ventilsitz Valve seat	1.4404	15-36-029/42 H126762	15-36-058/42 H33479		15-36-060/42 H33480	15-36-041/42 H202927	
27.1	1	Ventilsitz mit Lochkäfig (geräuscharm) Valve seat with punched cage (low noise)	1.4404	15-36-038/47 H144862	15-36-387/47 H141520		15-36-015/47 H148260		
	*	L-lineare Kennlinie-metall dichtend / L-characteristics linear -metal sealing							
	*	LD-lineare Kennlinie-weich dichtend / LD-characteristics linear -soft sealing							
		G-gleichprozentige Kennlinie-metall dichtend / G-characteristics equal percentage-metal sealing							
		GD-gleichprozentige Kennlinie-weich dichtend / GD-characteristics equal percentage-soft sealing							

Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm² digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm², digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX
DN 25-150

Datum: 14.04.15
 Name: Trytko
 Geprüft: Knöchel

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pos. item	Menge quantity	Beschreibung description	Material	50			WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	65
				6,3	10	16				
25	1	Schaft-lineare Kennlinie L *	1.4404			15-25-056/42 H169153	15-25-036/42 H175757	15-25-013/42 H176315	15-25-056/42 H169153	
	1	Schaft-lineare Kennlinie LD *	1.4404	15-25-046/42 H159478	15-25-047/42 H159479	15-25-048/42 H159480	15-25-049/42 H159481	15-25-050/42 H159482	15-25-048/42 H159480	
	1	Schaft-gleichprozentige Kennlinie G *	1.4404	15-25-139/42 H207739	15-25-138/42 H207038	15-25-602/42 H331585	15-25-069/42 H163545	15-25-072/42 H333827	15-25-602/42 H331585	
	1	Schaft-gleichprozentige Kennlinie GD *	1.4404	15-25-026/42 H159143	15-25-027/42 H159144	15-25-028/42 H159145	15-25-029/42 H159146	15-25-030/42 H159147	15-25-028/42 H159145	
26	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-294/93 H77445		58-33-394/93 H77470		58-33-444/93 H77494	58-33-394/93 H77470	
	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-294/73 H77444		58-33-394/73 H77469		58-33-444/73 H77493	58-33-394/73 H77469	
	1	Tellerdichtung Seat seal	HNBR FDA-konform	58-33-294/33 H172173		58-33-394/33 H172175		58-33-444/33 H165709	58-33-394/33 H172175	
	1	Tellerdichtung Seat seal	VMQ FDA-konform	58-33-294/13 H77443		58-33-394/13 H77468		58-33-444/13 H77492	58-33-394/13 H77468	
27	1	Ventilsitz metallisch dichtend Valve seat metal sealing	1.4404							
	1	Ventilsitz Valve seat	1.4404	15-36-062/42 H33481		15-36-064/42 H33482		15-36-066/42 H33483	15-36-068/42 H33484	
27.1	1	Ventilsitz mit Lochkäfig (geräuscharm) Valve seat with punched cage (low noise)	1.4404	15-36-034/47 H149114		15-36-437/47 H141521		15-36-011/47 H144859	15-36-012/47 H141524	
*	*	L-lineare Kennlinie-metall dichtend / L-characteristics linear -metal sealing								
*	*	LD-lineare Kennlinie-weich dichtend / LD-characteristics linear -soft sealing								
		G-gleichprozentige Kennlinie-metall dichtend / G-characteristics equal percentage-metal sealing								
		GD-gleichprozentige Kennlinie-weich dichtend / GD-characteristics equal percentage-soft sealing								

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX

DN 25-150

Datum:	14.04.15
Name:	Trytko
Geprüft:	Knöchel
Datum:	
Name:	
Geprüft:	



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pos. item	Menge quantity	Beschreibung description	Material	65			80		
				25	40	63	16	25	40
				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		Schaft-lineare Kennlinie L *	1.4404	15-25-036/42 H175757	15-25-013/42 H176315		15-25-056/42 H169153	15-25-036/42 H175757	15-25-013/42 H176315
25	1	Schaft-lineare Kennlinie LD *	1.4404	15-25-049/42 H159481	15-25-050/42 H159482	15-25-051/42 H159483	15-25-048/42 H159480	15-25-049/42 H159481	15-25-050/42 H159482
	1	Schaft-gleichprozentige Kennlinie G *	1.4404	15-25-069/42 H163545	15-25-072/42 H333827	15-25-073/42 H333843	15-25-602/42 H331585	15-25-069/42 H163545	15-25-072/42 H333827
	1	Schaft-gleichprozentige Kennlinie GD *	1.4404	15-25-029/42 H159146	15-25-030/42 H159147	15-25-031/42 H159148	15-25-028/42 H159145	15-25-029/42 H159146	15-25-030/42 H159147
	1	Tellerdichtung Seat seal	EPDM FDA-konform	58-33-394/93 H77470	58-33-444/93 H77494	58-33-494/93 H77518	58-33-394/93 H77470	58-33-394/93 H77494	58-33-444/93 H77494
	1	Tellerdichtung Seat seal	FPM FDA-konform	58-33-394/73 H77469	58-33-444/73 H77493	58-33-494/73 H77517	58-33-394/73 H77469	58-33-444/73 H77493	58-33-444/73 H77493
26	1	Tellerdichtung Seat seal	HNBR FDA-konform	58-33-394/33 H172175	58-33-444/33 H165709	58-33-494/33 H172178	58-33-394/33 H172175	58-33-444/33 H165709	58-33-444/33 H165709
	1	Tellerdichtung Seat seal	VMQ FDA-konform	58-33-394/13 H77468	58-33-444/13 H77492	58-33-494/13 H77516	58-33-394/13 H77468	58-33-444/13 H77492	58-33-444/13 H77492
	1	Ventilsitz metallisch dichtend Valve seat metal sealing	1.4404						
27	1	Ventilsitz Valve seat	1.4404	15-36-068/42 H33484	15-36-070/42 H33485	15-36-072/42 H33486	15-36-073/42 H105569	15-36-074/42 H33487	15-36-074/42 H33487
27.1	1	Ventilsitz mit Lochkäfig (geräuscharm) Valve seat with punched cage (low noise)	1.4404	15-36-012/47 H141524	15-36-487/47 H141522	15-36-016/47 H148263	15-36-153/47 H167160	15-36-037/47 H141525	15-36-037/47 H141525
	*	L-lineare Kennlinie-metall dichtend / L-characteristics linear -metal sealing							
	*	LD-lineare Kennlinie-weich dichtend / LD-characteristics linear -soft sealing							
		G-gleichprozentige Kennlinie-metall dichtend / G-characteristics equal percentage-metal sealing							
		GD-gleichprozentige Kennlinie-weich dichtend / GD-characteristics equal percentage-soft sealing							

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler el.-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX

DN 25-150

pos. item	Menge quantity	Beschreibung description	Material	DN125			WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
				63 Hub:15mm	100 Hub:15mm	160 Hub:15mm			
25	1	Schaft-lineare Kennlinie L *	1.4404						
		Shaft flow characteristics -linear L *							
	1	Schaft-lineare Kennlinie LD *	1.4404	15-25-051/42 H159483	15-25-052/42 H159309	15-25-055/42 H167867	15-25-053/42 H159484	15-25-128/42 H202134	
		Shaft flow characteristics -linear LD *							
26	1	Schaft-gleichprozentige Kennlinie G *	1.4404	15-25-073/42 H333843	15-25-143/42 H176760	15-25-037/42 H175802			
		Shaft flow character. -equal percentage G *							
	1	Schaft-gleichprozentige Kennlinie GD *	1.4404	15-25-031/42 H159148	15-25-032/42 H159149	15-25-035/42 H175422	15-25-033/42 H159151	15-25-129/42 H205833	
		Shaft flow character. -equal percentage GD *							
27	1	Tellerdichtung	EPDM	58-33-494/93 H77518	58-33-544/93 H77549	58-33-644/93 H77589		58-33-695/93 H77614	
		Seat seal	FDA-konform						
	1	Tellerdichtung	FPM	58-33-494/73 H77517	58-33-544/73 H77548	58-33-644/73 H77588		58-33-695/73 H77613	
		Seat seal	FDA-konform						
27.1	1	Tellerdichtung	HNBR	58-33-494/33 H172178	58-33-544/33 H172180	58-33-644/33 H172183		58-33-695/33 H172189	
		Seat seal	FDA-konform						
	1	Tellerdichtung	VMQ	58-33-494/13 H77516	58-33-544/13 H77547	58-33-644/13 H77587		58-33-695/13 H77612	
		Seat seal	FDA-konform						
27	1	Ventilsitz metallisch dichtend	1.4404						
		Valve seat metal sealing							
	1	Ventilsitz	1.4404	15-36-109/42 H160629	15-36-110/42 H159973	15-36-111/42 H159974		15-36-031/42 H202130	
		Valve seat							
27.1	1	Ventilsitz mit Lochkäfig (geräuscharm)	1.4404		15-36-327/42 H318045	15-36-118/47 H204286		15-36-328/47 H318046	
		Valve seat with punched cage (low noise)							
*		L-lineare Kennlinie-metall dichtend / L-characteristics linear -metal sealing							
*		LD-lineare Kennlinie-weich dichtend / LD-characteristics linear -soft sealing							
		G-gleichprozentige Kennlinie-metall dichtend / G-characteristics equal percentage-metal sealing							
		GD-gleichprozentige Kennlinie-weich dichtend / GD-characteristics equal percentage-soft sealing							

Datum: 14.04.15
 Name: Trytko
 Geprüft: Knöchel

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Ersatzteilliste: spare parts list

Regelventil RG41 - Pneumatischer Stellantrieb MAT3277 (MFS oder MFH) 120,240,350,700cm2 digitaler ei-pneumatischer Stellungsregler IP3730; lineare oder gleichprozentige Kennlinie. -Ex II -/2G IIB TX
Modulating valve RG41- with diaphragm actuator MAT3277 (spring: closed or open) 120,240,350,700cm2, digital electro-pneumatic positioner IP3730; flow charact. lineare or equal percentage. -Ex II -/2G IIB TX

DN 25-150

pos. item	Menge quantity	Beschreibung description	Material	DN150			WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.	WS-Nr. ref.-no.
				160 Hub:30mm	250 Hub:30mm	400 Hub:30mm				
25	1	Schaft-lineare Kennlinie L *	1.4404							
		Shaft flow characteristics -linear L *								
	1	Schaft-lineare Kennlinie LD *	1.4404	15-25-053/42 H159484	15-25-128/42 H202134	15-25-328/42 H329845				
		Shaft flow characteristics -linear LD *								
	1	Schaft-gleichprozentige Kennlinie G *	1.4404							
26	1	Schaft-gleichprozentige Kennlinie GD *	1.4404	15-25-033/42 H159151	15-25-129/42 H205833					
		Shaft flow character. -equal percentage G *								
	1	Schaft-gleichprozentige Kennlinie GD *	EPDM	58-33-644/93 H77589	58-33-695/93 H77614					
		Tellerdichtung Seat seal	FDA-konform							
	1	Tellerdichtung Seat seal	FPM	58-33-644/73 H77588	58-33-695/73 H77613					
27	1	Tellerdichtung Seat seal	HNBR	58-33-644/33 H172183	58-33-695/33 H172189					
		Tellerdichtung Seat seal	VMQ	58-33-644/13 H77587	58-33-695/13 H77612					
	1	Ventilsitz metallisch dichtend Valve seat metal sealing	1.4404							
	1	Ventilsitz Valve seat	1.4404	15-36-059/42 H320358	15-36-044/42 H205812					
	1	Ventilsitz mit Lochkäfig (geräuscharm) Valve seat with punched cage (low noise)	1.4404		15-36-048/47 H205815					

* L-lineare Kennlinie-metall dichtend / L-characteristics linear -metal sealing

* LD-lineare Kennlinie-weich dichtend / LD-characteristics linear -soft sealing

* G-gleichprozentige Kennlinie-metall dichtend / G-characteristics equal percentage-metal sealing

* GD-gleichprozentige Kennlinie-weich dichtend / GD-characteristics equal percentage-soft sealing

Datum: 14.04.15

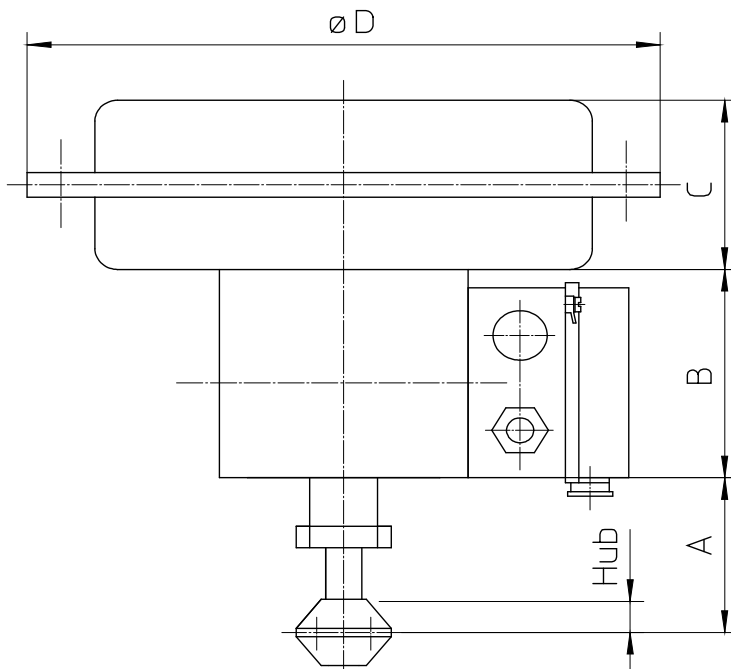
Name: Trytko

Geprüft: Knöchel

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Einbaumaße					
Fläche	A	B	C	øD	Hub
120 cm ²	75	88	70	168	15
240 cm ²	75	101	65	240	15
350 cm ²	75	101	85	280	15
700 cm ²	90	101	135	390	30

MFS-Membranantrieb federschießend / diaphragm actuator NC

Antriebsfläche Actuator area	Stelldruck Air pressure	IP 3730-11 Atex: II 2G Ex ia IIC T6 II 2D Ex tD A21 IP66 T80 C		
120 cm ²	1,4-2,3 bar	16-31-461/17 ATEX H333863		
240 cm ²	1,3-2,5 bar	16-31-462/17 ATEX H322946		
350 cm ²	1,4-2,3 bar	16-31-463/17 ATEX H333864		
	2,1-3,3 bar	16-31-464/17 ATEX H333865		
700 cm ²	1,4-2,3 bar	16-31-465/17 ATEX		

MFH-Membranantrieb federhebend / diaphragm actuator NO

Antriebsfläche Actuator area	Stelldruck Air pressure	IP 3730-11 Atex: II 2G Ex ia IIC T6 II 2D Ex tD A21 IP66 T80 C		
120 cm ²	0,2-1,0 bar			
240 cm ²	0,2-1,0 bar	16-31-477/17 ATEX H336436		
350 cm ²	0,2-1,0 bar			
700 cm ²	0,2-1,0 bar			

Datum:	24.02.15	24.07.15	26.01.17							
Name:	Trytko	Trytko	Sunder							
Geprüft:	Knöchel	Knöchel								



Ersatzteilliste: spare parts list
ATEX - Ausführungen / designs
RG4-Pneumat. Stellantrieb MAT 3277 MFS-federschießend und MFH-federhebend
mit digitalem elektro-pneumatischem Stellungsregler IP3730
RG4-Pneum. actuator MAT 3277 spring closed and open with digital el.-pneum. positioner
IP 3730

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APV DELTA RG4

MODULATING VALVE

FOR SPECIFIC ATEX-APPLICATIONS

SPXFLOW

SPX FLOW

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