SPXFLOW

INSTRUCTION MANUAL

APV RG4 DN25-150,1”-4”

MODULATING VALVE

SAFETY AGAINST EXPLOSION - FOR SPECIFIC ATEX-APPLICATIONS

FORM NO.: H333927 REVISION: UK-1-ATEX

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

APV®

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

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

November 2017

ppa. Baumbach

Frank Baumbach
Regional Engineering Manager, F&B Components

Content

1. General Terms

This instruction manual applies for 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 assembbled, 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!

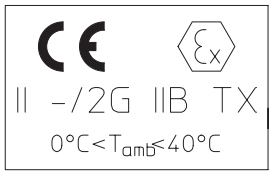
- Before start of assembly the operator must make sure that an explosive atmosphere does not exist (detection/measurement of potential concentration of hazardous substances).

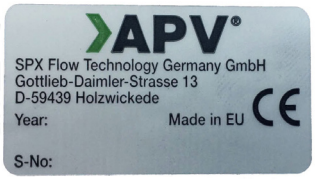
- Conductive connection to the pipeline must be provided. The integration into the internal potential equalisation must be guaranteed!

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 subcategroy IIB

Ambient temperature for the operation

0 °C ≤ T_{amb} ≤ 40 °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 = Tmax.
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 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.

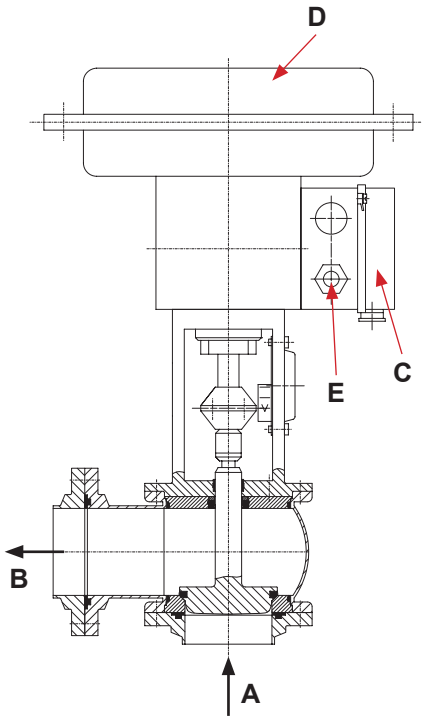
Arbitrary, constructive changes at the valve will influence safety as well as the intended functionality of the valve and are **not** permissible.

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

5.1. General terms

fig.1 Installation with integrated positioner



Hygienic modulating valves 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 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 TROVIS 3730-1-110
  Installation and instruction manual of electro-pneumatic positioner TROVIS 3730-1-110
  see **https://www.samsongroup.com/en/products/valve-accessories/trovis3730-1/**

- The positioner is installed laterally at the diaphragm actuator.
  Fedback 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!

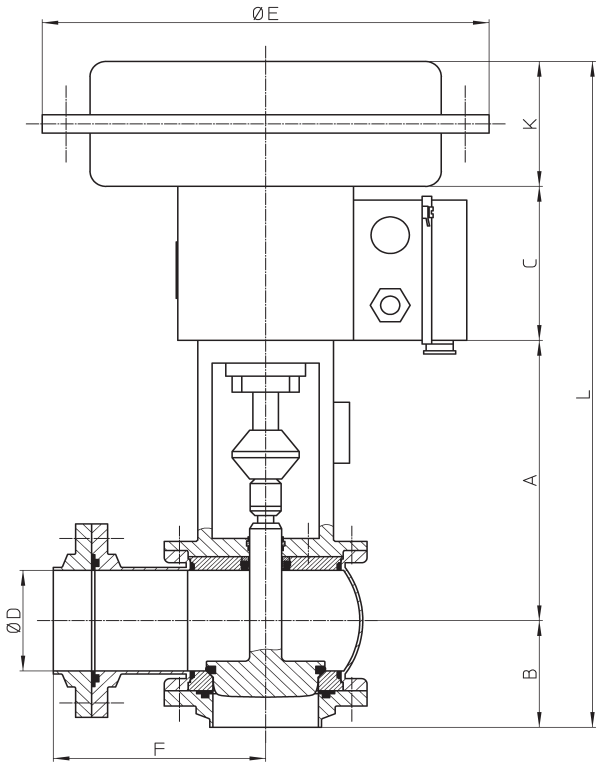
7. Installation

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 transfered 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

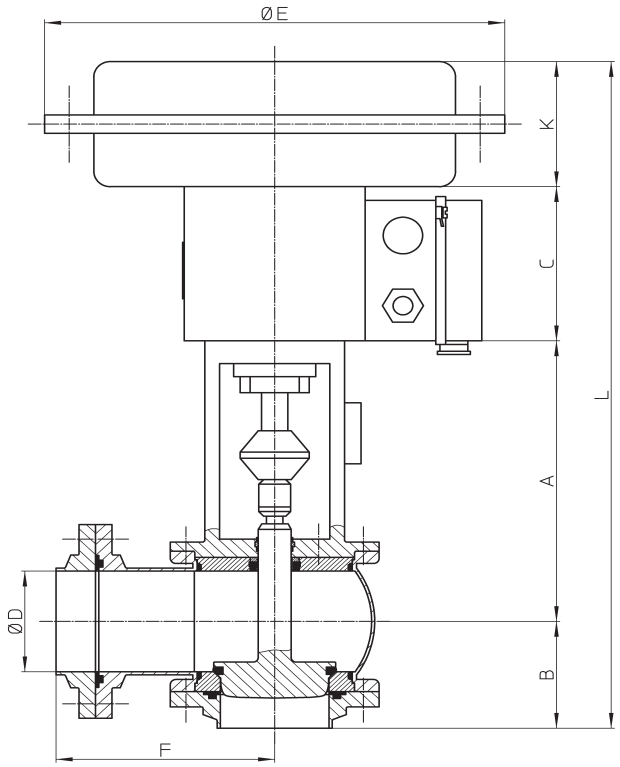
8.1. Integrated positioner (metric dimensions)



Dimensions in mm										Weight in kg
DN	Actuating surface (cm²)	L	A	B	C	ØD	F	ØE	K	
25	120	371	163.5	49.5	88	26	98	168	70	9.9
	175	392			101			215	78	11.8
40	120	383	169.5	55.5	88	38	115	168	70	11.7
	175	404			101			215	78	13.1
	350	408						280	82	15.1
50	120	395	175.5	61.5	88	50	120	168	70	12.2
	175	416			101			215	78	13.7
	350	420						280	82	15.7
65	175	433	184.0	70.0	101	66	133	215	78	16.1
	350	437						280	82	17.4
80	175	448	191.5	77.5	101	81	146	215	78	17.2
	350	452						280	82	19.8
100	350	471	201.0	87.0	101	100	159	280	82	22.7
	750	544	217.0					394	139	52.7
125	350	503	215.5	104.5	101	125	184	280	82	23.9
	750	571	226.5					394	139	53.8
150	750	596	239.0	117.0	101	150	204	394	139	58.0

8. Dimensions / Weights

8.2. Integrated positioner (Inch dimensions)



Dimensions in mm										Weight in kg
Inch	Actuating surface (cm²)	L	A	B	C	ØD	F	ØE	K	
1"	120	367	161.6	47.6	88	22.2	98	168	70	9.9
	175	388			101			215	78	11.8
1,5"	120	380	167.9	53.9	88	34.9	115	168	70	11.7
	175	401			101			215	78	13.1
	350	405						280	82	15.1
2"	120	393	174.3	60.3	88	47.6	120	168	70	12.2
	175	414			101			215	78	13.7
	350	418						280	82	15.7
2,5"	175	427	181.2	67.2	101	60.3	133	215	78	16.1
	350	431						280	82	17.4
3"	175	440	187.5	73.5	101	72.9	146	215	78	17.2
	350	444						280	82	19.8
4"	350	469	199.8	85.8	101	97.6	159	280	82	22.7
	750	542	215.8					394	139	52.7

9. Technical Data

9.1. General data

- max. premissible 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
- 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 (Only as spare part)
seat seal, shaft seal, FGN1 seal	Standard: EPDM Optional: HNBR, FPM, VMQ (Only as spare part)
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)

DN 25		DN 40		DN 50		DN 65		DN 80		DN 100		DN 100		DN 125		DN 125		DN 150	
Stroke: 15mm		Stroke: 15mm		Stroke: 15mm		Stroke: 15mm		Stroke: 15mm		Stroke: 15mm		Stroke: 30mm		Stroke: 15mm		Stroke: 30mm		Stroke: 15mm	
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**	**kvs**	**S Ø**
10	26	25	38	40	50	63	66	100	81	160	100	160	100	160	100	250	125	400	150
6.3		16		25	38	40	50	63	66	100	81			100	81	160	100	250	125
4.0	13	10	26	16		25	38	40	50	63	66							160	100
2.5		6.3		10	26	16													
1,6*	8	4	13	6.3															
1.0		2.5																	
0,63*																			
0,4*	4																		
0,25*																			

1”		1,5”		2”		2,5”		3”		4”		4”	
Stroke: 15 mm		Stroke: 15 mm		Stroke: 15 mm		Stroke: 15 mm		Stroke: 15 mm		Stroke: 15 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**
10	26	25	38	40	50	63	66	80	72.9	160	100	160	100
6.3		16		25	38	40	50	63	66	100	81		
4.0	13	10	26	16		25	38	40	50	63	66		
2.5		6.3		10	26	16							
1,6*	8	4	13	6.3									
1.0		2.5											
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 atmohsphere 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.

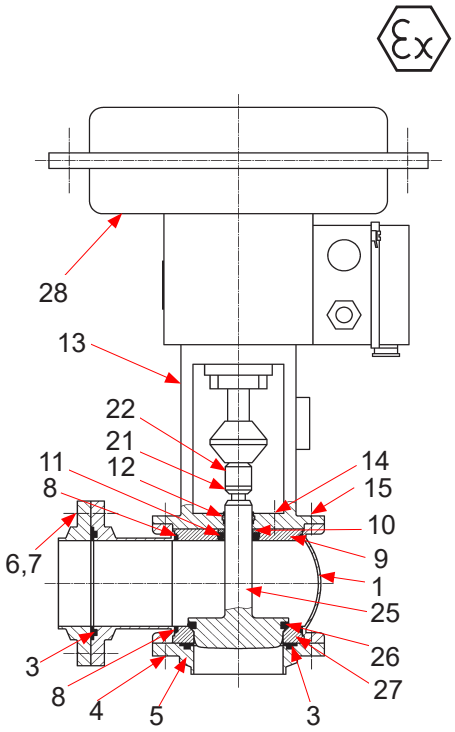
Diaphragm actuator
Installation and Instructions Manual of diaphragm actuator 3277
see **https://www.samsongroup.com/en/products/actuators/**

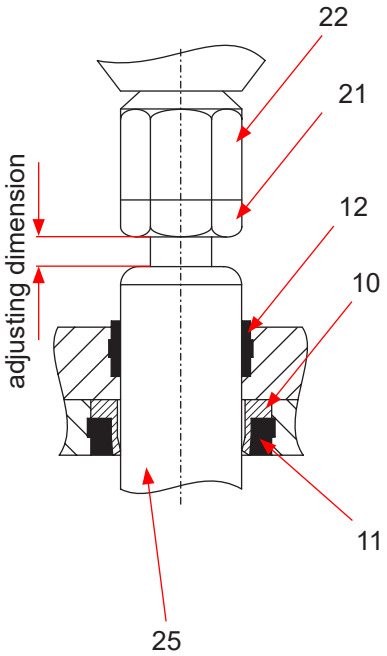
For 120 cm² : EB 8310-1
For 175 cm², 350 cm², 750 cm² : EB 8310-5

Electro pneumatic positioner
Installation and Instructions Manual of electropneumatic positioner TROVIS 3730-1-110
see **https://www.samsongroup.com/en/products/valve-accessories/trovis3730-1/**

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 atmohsphere 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.**

   Note: **For actuator MFS size 175cm²: control actuator with air**

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

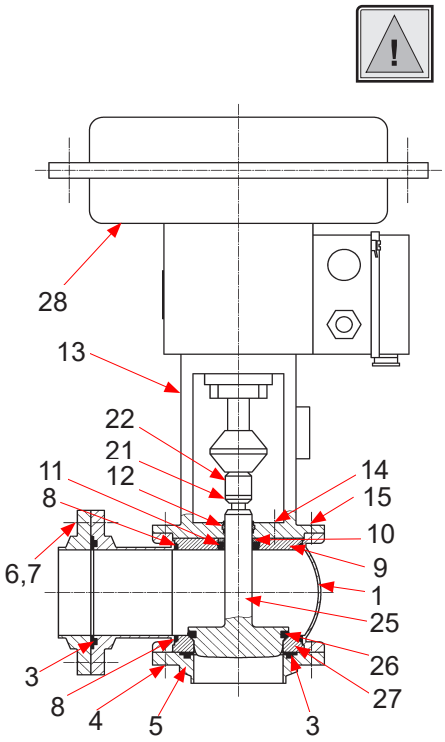
1. See chapter 11.2. pos. **1. - 4**.

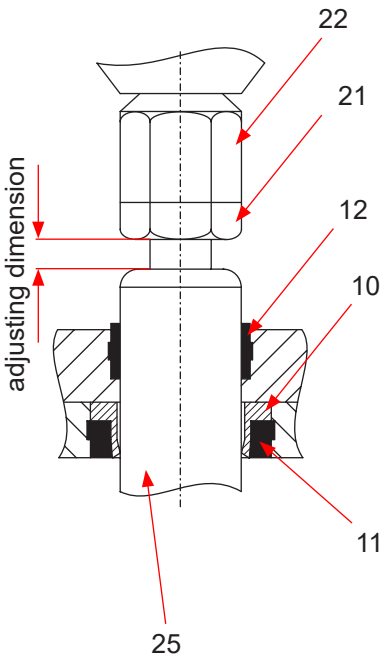
2. If, in case of change of flow rates, the diaphragm actuator (**28**) must be exchanged, loosen nut by means of hammer and chisel and take off actuator.

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!

   Note: For actuator MFS size 175cm² control actuator with 1,7 bar air pressure.
   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!

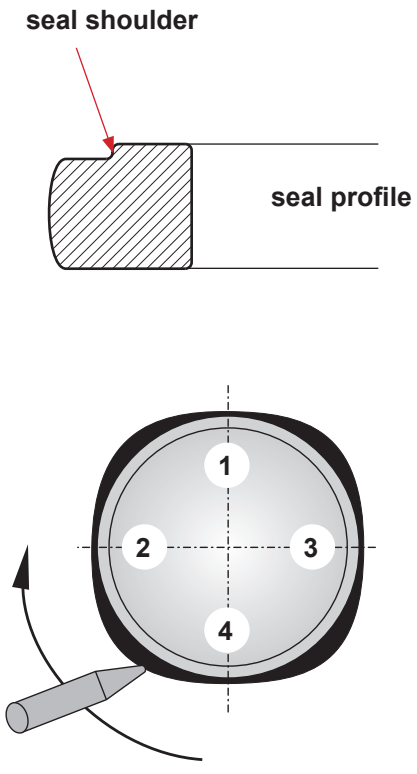
3. Press the slightly greased seal at four spots with the wide side to the front into the groove **(see sketch 1)**.

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)**.

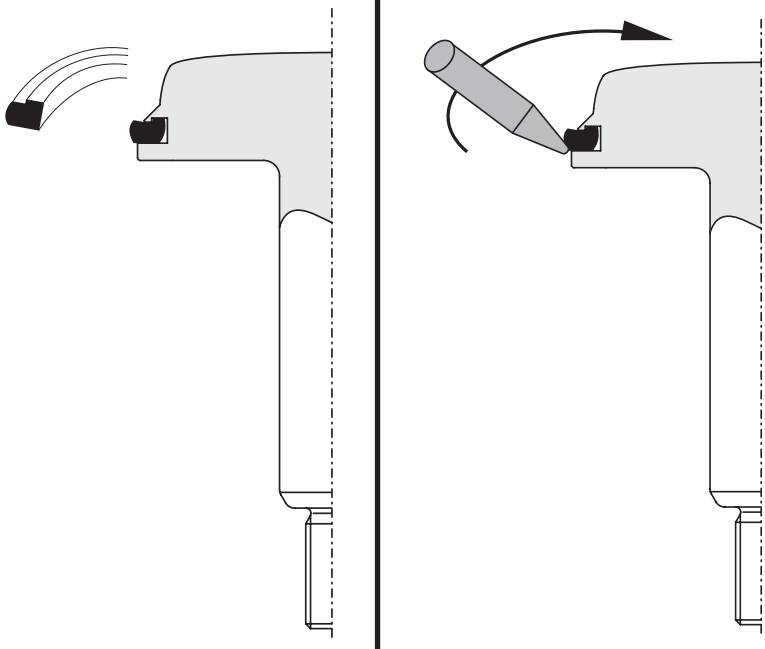
5. Proceed step by step while pressing the seal into the groove. Work alternately at the opposite spots of the seal groove. See to an even fit of the seat seal.

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)**.

sketch 1



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 w	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: **https://www.samsongroup.com/en/products/actuators/**
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: **https://www.samsongroup.com/en/products/valve-accessories/trovis3730-1/**

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.

Spare parts list:

Modulating valve RG4 - 1" - 4" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:					
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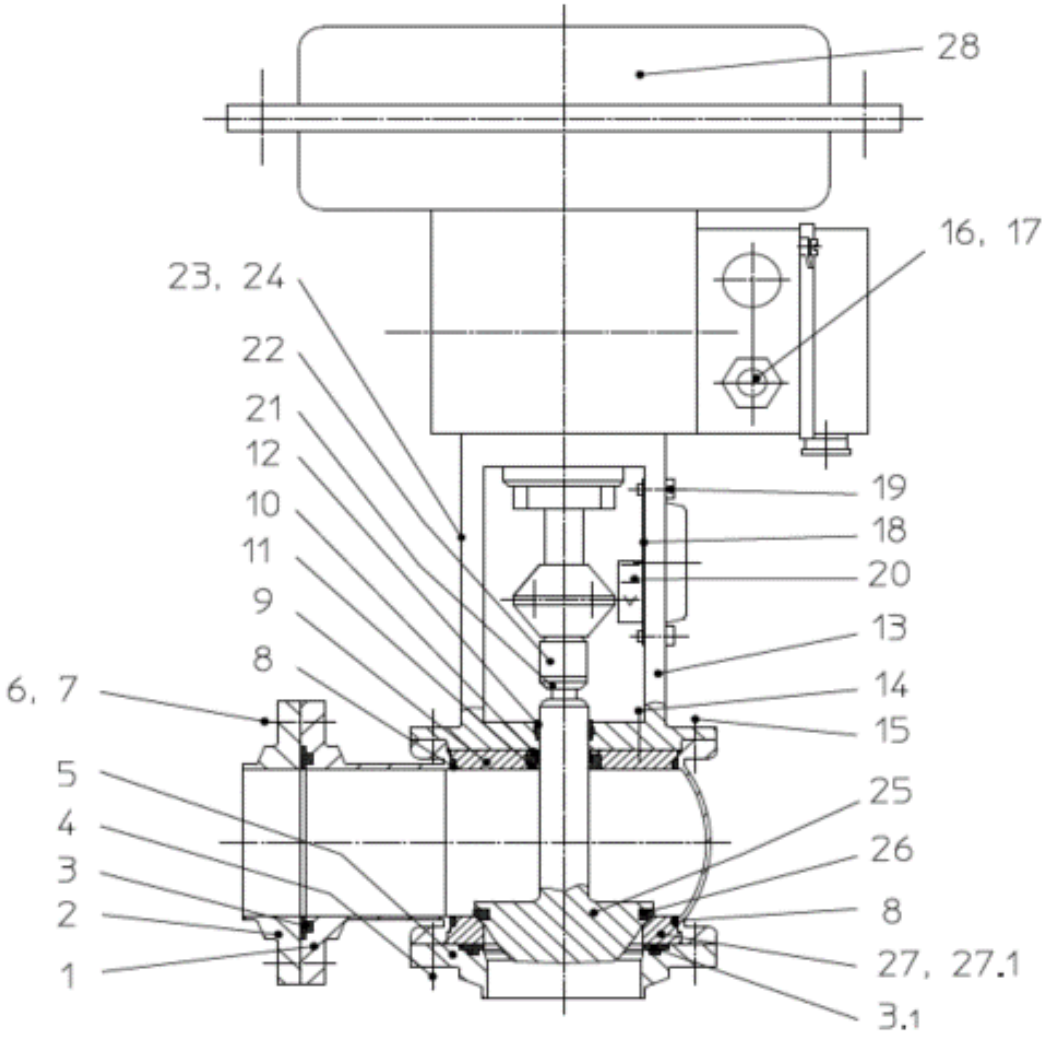
Approved by:					



Spare parts list:

Modulating valve RG4 - 1" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:					
Date:					Page 2 of 14
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Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158856
2	1	Flange	FGX1	1.4404	H158843
3	1	Seal	FGN1	EPDM	H77284
			FGN1	HNBR	H172140
			FGN1	FPM	H77283
			FGN1	VMQ	H77282
3.1	1	Seal	FGN1	EPDM	H77280
			FGN1	HNBR	H172130
			FGN1	FPM	H77279
			FGN1	VMQ	H77278
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H147044
6	4	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	4	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø45	EPDM	H77439
			Ø45	HNBR	H170017
			Ø45	FPM	H77438
9	1	Housing cover		1.4404	H156869
10	1	Shaft seal	SW4-Ø20mm	Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H157564
14	1	Hex. screw M6x16	DIN EN 24017	A2-70	H78751
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke indicator		1.4301	H161763

Item	Quantity	Description		Material	Part no.
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 0,25 m³/h	1.4404	H160658
			kvs = 0,4 m³/h	1.4404	H160666
			kvs = 0,63 m³/h	1.4404	H160668
			kvs = 1,0 m³/h	1.4404	H160669
			kvs = 1,6 m³/h	1.4404	H159401
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
	1	Shaft - linear LD*	kvs = 0,25 m³/h		
			kvs = 0,4 m³/h	1.4404	H331801
			kvs = 0,63 m³/h	1.4404	H179617
			kvs = 1,0 m³/h	1.4404	H179618
			kvs = 1,6 m³/h	1.4404	H179620
			kvs = 2,5 m³/h	1.4404	H159476
			kvs = 4,0 m³/h	1.4404	H159477
			kvs = 6,3 m³/h	1.4404	H159478
			kvs = 10 m³/h	1.4404	H159479

Spare parts list:

Modulating valve RG4 - 1" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23		
Name:	Trytko	Shreshth		
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

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Item	Quantity	Description		Material	Part no.
25	1	Shaft - equal percentage G*	kvs = 0,25 m³/h	1.4404	H160657
			kvs = 0,4 m³/h	1.4404	H159245
			kvs = 0,63 m³/h	1.4404	H159244
			kvs = 1,0 m³/h	1.4404	H159243
			kvs = 1,6 m³/h	1.4404	H159140
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h	1.4404	H326212
			kvs = 6,3 m³/h	1.4404	H207739
			kvs = 10 m³/h	1.4404	H207038
	1	Shaft - equal percentage GD*	kvs = 0,25 m³/h		
			kvs = 0,4 m³/h	1.4404	H320892
			kvs = 0,63 m³/h	1.4404	H312777
			kvs = 1,0 m³/h	1.4404	H208609
			kvs = 1,6 m³/h	1.4404	H311745
			kvs = 2,5 m³/h	1.4404	H159141
			kvs = 4,0 m³/h	1.4404	H159142
			kvs = 6,3 m³/h	1.4404	H159143
			kvs = 10 m³/h	1.4404	H159144
26	1	Seat seal		EPDM	H77445
				HNBR	H172173
				FPM	H77444
				VMQ	H77443
27	1	Valve seat metal sealing	kvs = 0,25 m³/h	1.4404	H160650
			kvs = 0,4 m³/h		
			kvs = 0,63 m³/h	1.4404	H126717
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h	1.4404	H152848
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		

Item	Quantity	Description		Material	Part no.
27	1	Valve seat	kvs = 0,25 m³/h	1.4404	H317103
			kvs = 0,4 m³/h		
			kvs = 0,63 m³/h	1.4404	H179615
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h	1.4404	H126716
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H33476
			kvs = 10 m³/h		
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 0,25 m³/h		
			kvs = 0,4 m³/h		
			kvs = 0,63 m³/h		
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h	1.4404	H179830
			kvs = 2,5 m³/h	1.4404	H146941
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H146768
			kvs = 10 m³/h		
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			
		Item 3, 3.1, 8, 10, 11, 12, 26 available as complete seal kits only			
	1	Seal kit		EPDM	H174415
	1	Seal kit		HNBR	H315820
	1	Seal kit		FPM	H325392
	1	Seal kit		VMQ	H325393
	*	**LD* = linear flow characteristic, soft sealing**			
	*	**GD* = equal percentage flow characteristic, soft sealing**			

Spare parts list:

Modulating valve RG4 - 1,5" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:					
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Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158857
2	1	Flange	FGX1	1.4404	H158846
3	1	Seal	FGN1	EPDM	H77296
			FGN1	HNBR	H172141
			FGN1	FPM	H77295
			FGN1	VMQ	H77294
3.1	1	Seal	FGN1	EPDM	H77292
			FGN1	HNBR	H172131
			FGN1	FPM	H77291
			FGN1	VMQ	H77290
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H147046
6	4	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	4	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø61	EPDM	H77464
			Ø61	HNBR	H170018
			Ø61	FPM	H77463
9	1	Housing cover		1.4404	H156409
10	1	Shaft seal	SW4-Ø20mm	Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H157565
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke indicator		1.4301	H161763

Item	Quantity	Description		Material	Part no.
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 0,63 m³/h	1.4404	H160668
			kvs = 1,0 m³/h	1.4404	H160669
			kvs = 1,6 m³/h	1.4404	H159401
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H169153
			kvs = 25 m³/h	1.4404	H175757
	1	Shaft - linear LD*	kvs = 0,63 m³/h	1.4404	H179617
			kvs = 1,0 m³/h	1.4404	H179618
			kvs = 1,6 m³/h	1.4404	H179620
			kvs = 2,5 m³/h	1.4404	H159476
			kvs = 4,0 m³/h	1.4404	H159477
			kvs = 6,3 m³/h	1.4404	H159478
			kvs = 10 m³/h	1.4404	H159479
			kvs = 16 m³/h	1.4404	H159480
			kvs = 25 m³/h	1.4404	H159481

Spare parts list:

Modulating valve RG4 - 1,5" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23		
Name:	Trytko	Shreshth		
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.1

Item	Quantity	Description		Material	Part no.
25	1	Shaft - equal percentage G*	kvs = 0,63 m³/h	1.4404	H159244
			kvs = 1,0 m³/h	1.4404	H159243
			kvs = 1,6 m³/h	1.4404	H159140
			kvs = 2,5 m³/h	1.4404	H166601
			kvs = 4,0 m³/h	1.4404	H326212
			kvs = 6,3 m³/h	1.4404	H207739
			kvs = 10 m³/h	1.4404	H207038
			kvs = 16 m³/h	1.4404	H331585
			kvs = 25 m³/h	1.4404	H163545
	1	Shaft - equal percentage GD*	kvs = 0,63 m³/h	1.4404	H312777
			kvs = 1,0 m³/h	1.4404	H208609
			kvs = 1,6 m³/h	1.4404	H311745
			kvs = 2,5 m³/h	1.4404	H159141
			kvs = 4,0 m³/h	1.4404	H159142
			kvs = 6,3 m³/h	1.4404	H159143
			kvs = 10 m³/h	1.4404	H159144
			kvs = 16 m³/h	1.4404	H159145
			kvs = 25 m³/h	1.4404	H159146
26	1	Seat seal	kvs = 0,63 m³/h - kvs = 1,0 m³/h kvs = 1,6 m³/h - kvs = 2,5 m³/h kvs = 4,0 m³/h - kvs = 6,3 m³/h kvs = 10 m³/h	EPDM	H77445
				HNBR	H172173
				FPM	H77444
				VMQ	H77443
	1	Seat seal	kvs = 16 m³/h kvs = 25 m³/h	EPDM	H77470
				HNBR	H172175
				FPM	H77469
				VMQ	H77468

Item	Quantity	Description		Material	Part no.
27	1	Valve seat metal sealing	kvs = 0,63 m³/h	1.4404	H126763
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
			kvs = 16 m³/h		
			kvs = 25 m³/h		
	1	Valve seat	kvs = 0,63 m³/h	1.4404	H312776
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h	1.4404	H126762
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H33479
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H33480
			kvs = 25 m³/h		
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 0,63 m³/h		
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h	1.4404	H144862
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H141520
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H148260
			kvs = 25 m³/h		
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			

Spare parts list:

Modulating valve RG41 - 1,5"

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner TROVIS 3730-1
Flow characteristic: linear or equal percentage - Ex II -/2G IIB TX

Date:	25.02.15	30.01.23		
Name:	Trytko	Shreshth		
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.1

Item	Quantity	Description		Material	Part no.
		Item 3, 3.1, 8, 10, 11, 12, 26 available as complete seal kits only			
	1	Seal kit		EPDM	H174416
	1	Seal kit		HNBR	H320185
	1	Seal kit		FPM	H319788
	1	Seal kit		VMQ	H325456
	*	**LD* = linear flow characteristic, soft sealing**			
	*	**GD* = equal percentage flow characteristic, soft sealing**			

Item	Quantity	Description	Material	Part no.

Spare parts list:

Modulating valve RG4 - 2" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:					
Date:					Page 7 of 14
Name:					**RN ATEX 01.170.1**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158858
2	1	Flange	FGX1	1.4404	H158847
3	1	Seal	FGN1	EPDM	H77307
			FGN1	HNBR	H172142
			FGN1	FPM	H77306
			FGN1	VMQ	H77305
3.1	1	Seal	FGN1	EPDM	H77303
			FGN1	HNBR	H172132
			FGN1	FPM	H77302
			FGN1	VMQ	H77301
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H147047
6	4	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	4	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø73	EPDM	H77488
			Ø73	HNBR	H168714
			Ø73	FPM	H77487
9	1	Housing cover		1.4404	H148194
10	1	Shaft seal	SW4-Ø20mm	Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H157567
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke indicator		1.4301	H161763

Item	Quantity	Description		Material	Part no.
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H169153
			kvs = 25 m³/h	1.4404	H175757
			kvs = 40 m³/h	1.4404	H176315
	1	Shaft - linear LD*	kvs = 4,0 m³/h	1.4404	H159477
			kvs = 6,3 m³/h	1.4404	H159478
			kvs = 10 m³/h	1.4404	H159479
			kvs = 16 m³/h	1.4404	H159480
			kvs = 25 m³/h	1.4404	H149481
			kvs = 40 m³/h	1.4404	H159482
	1	Shaft - equal percentage G*	kvs = 4,0 m³/h	1.4404	H326212
			kvs = 6,3 m³/h	1.4404	H207739
			kvs = 10 m³/h	1.4404	H207038
			kvs = 16 m³/h	1.4404	H331585
			kvs = 25 m³/h	1.4404	H163545
			kvs = 40 m³/h	1.4404	H333827
	1	Shaft - equal percentage GD*	kvs = 4,0 m³/h	1.4404	H159142
			kvs = 6,3 m³/h	1.4404	H159143
			kvs = 10 m³/h	1.4404	H159144
			kvs = 16 m³/h	1.4404	H159145
			kvs = 25 m³/h	1.4404	H159146
			kvs = 40 m³/h	1.4404	H159147

Spare parts list:

Modulating valve RG4 - 2" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23		
Name:	Trytko	Shreshth		
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.1

Item	Quantity	Description		Material	Part no.
26	1	Seat seal	kvs = 4,0 m³/h kvs = 6,3 m³/h kvs = 10 m³/h	EPDM	H77445
				HNBR	H172173
				FPM	H77444
				VMQ	H77443
	1	Seat seal	kvs = 16 m³/h kvs = 25 m³/h	EPDM	H77470
				HNBR	H172175
				FPM	H77469
				VMQ	H77468
	1	Seat seal	kvs = 40 m³/h	EPDM	H77494
				HNBR	H168709
				FPM	H77493
				VMQ	H77492
27	1	Valve seat metal sealing	kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
			kvs = 16 m³/h		
			kvs = 25 m³/h		
			kvs = 40 m³/h		
	1	Valve seat	kvs = 4,0 m³/h	1.4404	H202927
			kvs = 6,3 m³/h	1.4404	H33481
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H33482
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H33483
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H149114
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H141521
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H144859

Item	Quantity	Description	Material	Part no.
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4		
		Item 3, 3.1, 8, 10, 11, 12, 26 available as complete seal kits only		
	1	Seal kit	EPDM	H174417
	1	Seal kit	HNBR	H316681
	1	Seal kit	FPM	H321321
	1	Seal kit	VMQ	H325426
	*	**LD* = linear flow characteristic, soft sealing**		
	*	**GD* = equal percentage flow characteristic, soft sealing**		

Spare parts list:

Modulating valve RG4 - 2,5" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:					
Date:					Page 9 of 14
Name:					**RN ATEX 01.170.1**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158859
2	1	Flange	FGX1	1.4404	H158848
3	1	Seal	FGN1	EPDM	H77318
			FGN1	HNBR	H172143
			FGN1	FPM	H77317
			FGN1	VMQ	H77316
3.1	1	Seal	FGN1	EPDM	H77314
			FGN1	HNBR	H172133
			FGN1	FPM	H77313
			FGN1	VMQ	H77312
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H147048
6	4	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	4	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø81	EPDM	H77512
			Ø81	HNBR	H168759
			Ø81	FPM	H77511
9	1	Housing cover		1.4404	H151968
10	1	Shaft seal	SW4-Ø20mm	Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H157568
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke indicator		1.4301	H161763

Item	Quantity	Description		Material	Part no.
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 16 m³/h	1.4404	H169153
			kvs = 25 m³/h	1.4404	H175757
			kvs = 40 m³/h	1.4404	H176315
			kvs = 63 m³/h	1.4404	
	1	Shaft - linear LD*	kvs = 16 m³/h	1.4404	H159480
			kvs = 25 m³/h	1.4404	H159481
			kvs = 40 m³/h	1.4404	H159482
			kvs = 63 m³/h	1.4404	H321259
	1	Shaft - equal percentage G*	kvs = 16 m³/h	1.4404	H331585
			kvs = 25 m³/h	1.4404	H163545
			kvs = 40 m³/h	1.4404	H333827
			kvs = 63 m³/h	1.4404	
	1	Shaft - equal percentage GD*	kvs = 16 m³/h	1.4404	H159145
			kvs = 25 m³/h	1.4404	H159146
			kvs = 40 m³/h	1.4404	H159147
			kvs = 63 m³/h	1.4404	H321260

Spare parts list:

Modulating valve RG4 - 2,5" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23		
Name:	Trytko	Shreshth		
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.1

Item	Quantity	Description		Material	Part no.
26	1	Seat seal	kvs = 16 m³/h kvs = 25 m³/h	EPDM	H77470
				HNBR	H172175
				FPM	H77469
				VMQ	H77468
	1	Seat seal	kvs = 40 m³/h	EPDM	H77494
				HNBR	H168709
				FPM	H77493
				VMQ	H77492
	1	Seat seal	kvs = 63 m³/h	EPDM	H77518
				HNBR	H172178
				FPM	H77517
				VMQ	H77516
27	1	Valve seat metal sealing	kvs = 16 m³/h		
			kvs = 25 m³/h		
			kvs = 40 m³/h		
			kvs = 63 m³/h		
	1	Valve seat	kvs = 16 m³/h	1.4404	H326912
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H326914
			kvs = 63 m³/h	1.4404	H33486
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 16 m³/h	1.4404	H326913
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H326915
			kvs = 63 m³/h	1.4404	H148263
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			

Item	Quantity	Description	Material	Part no.
		Item 3, 3.1, 8, 10, 11, 12, 26 available as complete seal kits only		
	1	Seal kit	EPDM	H174418
	1	Seal kit	HNBR	H320186
	1	Seal kit	FPM	H326174
	1	Seal kit	VMQ	H338000
	*	**LD* = linear flow characteristic, soft sealing**		
	*	**GD* = equal percentage flow characteristic, soft sealing**		

Spare parts list:

Modulating valve RG4 - 3" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:					
Date:					Page 11 of 14
Name:					**RN ATEX 01.170.1**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158860
2	1	Flange	FGX1	1.4404	H158849
3	1	Seal	FGN1	EPDM	H77332
			FGN1	HNBR	H172144
			FGN1	FPM	H77331
			FGN1	VMQ	H77330
3.1	1	Seal	FGN1	EPDM	H77332
			FGN1	HNBR	H172144
			FGN1	FPM	H77331
			FGN1	VMQ	H77330
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H158889
6	8	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	8	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø88	EPDM	H77558
			Ø88	HNBR	H170013
			Ø88	FPM	H77557
9	1	Housing cover		1.4404	H151895
10	1	Shaft seal	SW4-Ø20mm	Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H159375
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763

Item	Quantity	Description		Material	Part no.
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 16 m³/h	1.4404	H169153
			kvs = 25 m³/h	1.4404	H175757
			kvs = 40 m³/h	1.4404	H176315
			kvs = 63 m³/h	1.4404	
			kvs = 80 m³/h	1.4404	
	1	Shaft - linear LD*	kvs = 16 m³/h	1.4404	H159480
			kvs = 25 m³/h	1.4404	H159481
			kvs = 40 m³/h	1.4404	H159482
			kvs = 63 m³/h	1.4404	H159483
			kvs = 80 m³/h	1.4404	H159763
	1	Shaft - equal percentage G*	kvs = 16 m³/h	1.4404	H331585
			kvs = 25 m³/h	1.4404	H163545
			kvs = 40 m³/h	1.4404	H333827
			kvs = 63 m³/h	1.4404	H333843
			kvs = 80 m³/h	1.4404	
	1	Shaft - equal percentage GD*	kvs = 16 m³/h	1.4404	H159145
			kvs = 25 m³/h	1.4404	H159146
			kvs = 40 m³/h	1.4404	H159147
			kvs = 63 m³/h	1.4404	H159148
			kvs = 80 m³/h	1.4404	H159762

Spare parts list:

Modulating valve RG4 - 3" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23		
Name:	Trytko	Shreshth		
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.1

Item	Quantity	Description		Material	Part no.
26	1	Seat seal	kvs = 16 m³/h kvs = 25 m³/h	EPDM	H77470
				HNBR	H172175
				FPM	H77469
				VMQ	H77468
	1	Seat seal	kvs = 40 m³/h	EPDM	H77494
				HNBR	H168709
				FPM	H77493
				VMQ	H77492
	1	Seat seal	kvs = 63 m³/h	EPDM	H77518
				HNBR	H172178
				FPM	H77517
				VMQ	H77516
	1	Seat seal	kvs = 80 m³/h	EPDM	H77564
				HNBR	H176688
				FPM	H77563
				VMQ	H77562
27	1	Valve seat metal sealing	kvs = 16 m³/h		
			kvs = 25 m³/h		
			kvs = 40 m³/h		
			kvs = 63 m³/h		
			kvs = 80 m³/h		
	1	Valve seat	kvs = 16 m³/h	1.4404	H332539
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H33511
			kvs = 63 m³/h	1.4404	H147062
			kvs = 80 m³/h	1.4404	H33512
27.1	1	Valve seat	kvs = 16 m³/h		
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H149597
			kvs = 63 m³/h	1.4404	H149599
			kvs = 80 m³/h	1.4404	H160041

Item	Quantity	Description	Material	Part no.
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4		
		Item 3, 3.1, 8, 10, 11, 12, 26 available as complete seal kits only		
	1	Seal kit	EPDM	H174419
	1	Seal kit	HNBR	H325403
	1	Seal kit	FPM	H325402
	1	Seal kit	VMQ	H338001
	*	**LD* = linear flow characteristic, soft sealing**		
	*	**GD* = equal percentage flow characteristic, soft sealing**		

Spare parts list:

Modulating valve RG4 - 4" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:					
Date:					Page 13 of 14
Name:					**RN ATEX 01.170.1**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158861
2	1	Flange	FGX1	1.4404	H158850
3	1	Seal	FGN1	EPDM	H77343
			FGN1	HNBR	H172145
			FGN1	FPM	H77342
			FGN1	VMQ	H77341
3.1	1	Seal	FGN1	EPDM	H77339
			FGN1	HNBR	H172135
			FGN1	FPM	H77338
			FGN1	VMQ	H77337
4	8	Hex. screw M10x20	DIN EN 24017	A2-70	H78809
5	1	Flange	FNX1	1.4404	H147049
6	8	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	8	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø110,2	EPDM	H77583
			Ø110,2	HNBR	H170074
			Ø110,2	FPM	H77582
9	1	Housing cover		1.4404	H159888
10	1	Shaft seal	SW4-Ø20mm	Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H159572
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
15	8	Hex. screw M10x16	DIN EN 24017	A2-70	H78806
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763

Item	Quantity	Description		Material	Part no.
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 63 m³/h		
			kvs = 100 m³/h		
			kvs = 160 m³/h Stroke: 15mm		
			kvs = 160 m³/h Stroke: 30mm		
	1	Shaft - linear LD*	kvs = 63 m³/h	1.4404	H159483
			kvs = 100 m³/h	1.4404	H159309
			kvs = 160 m³/h Stroke: 15mm	1.4404	H167867
			kvs = 160 m³/h Stroke: 30mm		
	1	Shaft - equal percentage G*	kvs = 63 m³/h		
			kvs = 100 m³/h		
			kvs = 160 m³/h Stroke: 15mm		
			kvs = 160 m³/h Stroke: 30mm		
	1	Shaft - equal percentage GD*	kvs = 63 m³/h	1.4404	H159148
			kvs = 100 m³/h	1.4404	H159149
			kvs = 160 m³/h Stroke: 15mm	1.4404	H175422
			kvs = 160 m³/h Stroke: 30mm		

Spare parts list:

Modulating valve RG4 - 4" ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	25.02.15	30.01.23		
Name:	Trytko	Shreshth		
Approved by:				
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.1

Item	Quantity	Description		Material	Part no.
26	1	Seat seal	kvs = 63 m³/h	EPDM	H77518
				HNBR	H172178
				FPM	H77517
				VMQ	H77516
	1	Seat seal	kvs = 100 m³/h	EPDM	H77549
				HNBR	H172180
				FPM	H77548
				VMQ	H77547
	1	Seat seal	kvs = 160 m³/h Stroke: 15mm	EPDM	H77589
				HNBR	H172183
				FPM	H77588
				VMQ	H77587
27	1	Valve seat metal sealing	kvs = 63 m³/h		
			kvs = 100 m³/h		
			kvs = 160 m³/h Stroke: 15mm		
			kvs = 160 m³/h Stroke: 30mm		
	1	Valve seat	kvs = 63 m³/h	1.4404	H33490
			kvs = 100 m³/h	1.4404	H125799
			kvs = 160 m³/h Stroke: 15mm	1.4404	H125798
			kvs = 160 m³/h Stroke: 30mm		
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 63 m³/h	1.4404	H149005
			kvs = 100 m³/h	1.4404	H141526
			kvs = 160 m³/h Stroke: 15mm	1.4404	H152311
			kvs = 160 m³/h Stroke: 30mm		
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			

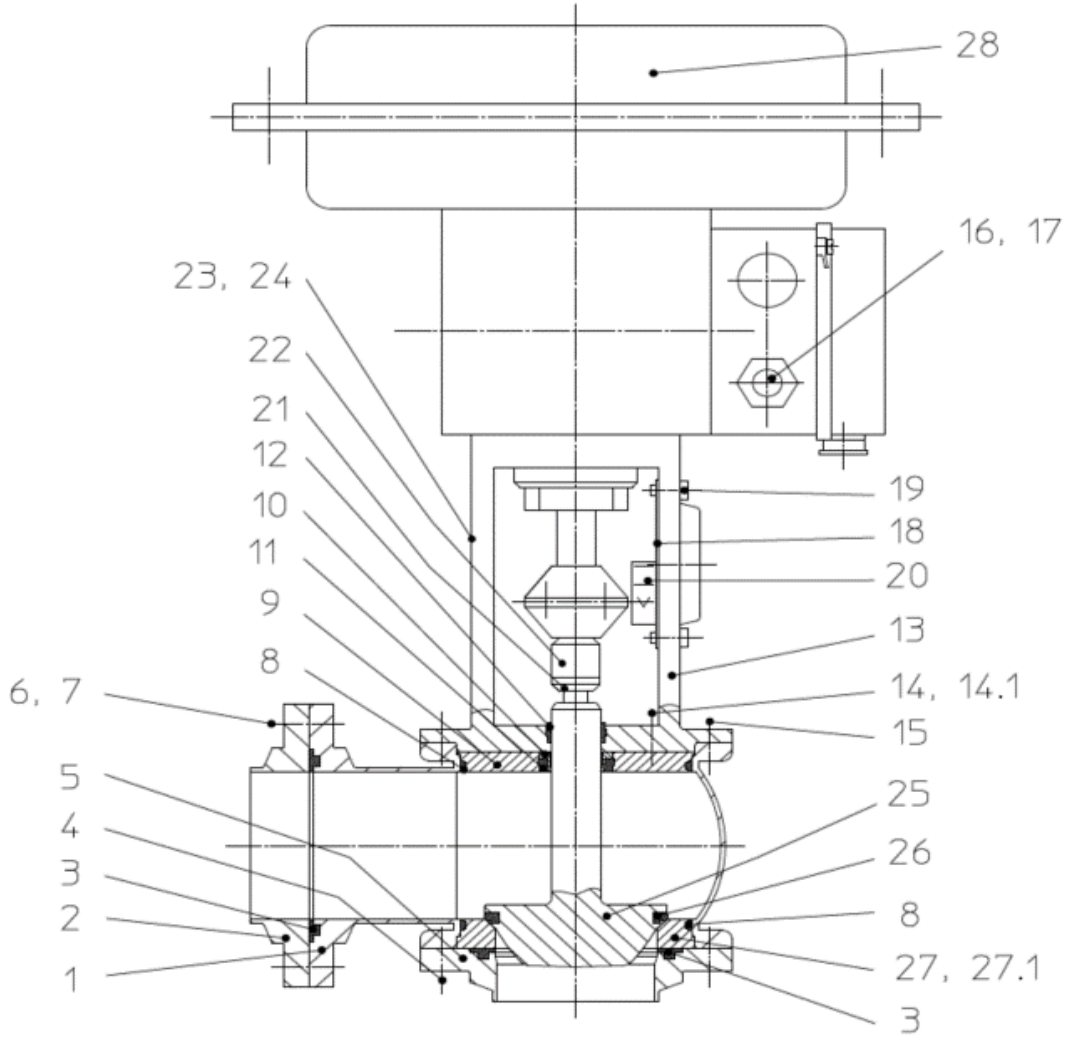
Item	Quantity	Description		Material	Part no.
		Item 3, 3.1, 8, 10, 11, 12, 26 available as complete seal kits only			
	1	Seal kit		EPDM	H174420
	1	Seal kit		HNBR	H320187
	1	Seal kit		FPM	H338002
	1	Seal kit		VMQ	H338003
	*	**LD* = linear flow characteristic, soft sealing**			
	*	**GD* = equal percentage flow characteristic, soft sealing**			

Spare parts list:

Modulating valve RG4 - DN 25 - DN 150 ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 1 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					



Spare parts list:

Modulating valve RG4 - DN 25 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 2 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158109
2	1	Flange	FGX1	1.4404	H158102
3	2	Seal	FGN1	EPDM	H77280
			FGN1	HNBR	H172130
			FGN1	FPM	H77279
			FGN1	VMQ	H77278
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H158095
6	4	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	4	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø45	EPDM	H77439
			Ø45	HNBR	H170017
			Ø45	FPM	H77438
9	1	Housing cover		1.4404	H156869
10	1	Shaft seal		Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H157564
14	1	Hex. screw M6x16	DIN EN 24017	A2-70	H78751
14.1	1	Washer	DIN 125 A I=8,4	A2-70	
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483

Item	Quantity	Description		Material	Part no.
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieAF 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 0,25 m³/h	1.4404	H160658
			kvs = 0,4 m³/h	1.4404	H160666
			kvs = 0,63 m³/h	1.4404	H160668
			kvs = 1,0 m³/h	1.4404	H160669
			kvs = 1,6 m³/h	1.4404	H159401
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
	1	Shaft - linear LD*	kvs = 0,25 m³/h	1.4404	H327465
			kvs = 0,4 m³/h	1.4404	H331801
			kvs = 0,63 m³/h	1.4404	H179617
			kvs = 1,0 m³/h	1.4404	H179618
			kvs = 1,6 m³/h	1.4404	H179620
			kvs = 2,5 m³/h	1.4404	H159476
			kvs = 4,0 m³/h	1.4404	H159477
			kvs = 6,3 m³/h	1.4404	H159478
			kvs = 10 m³/h	1.4404	H159479

Spare parts list:

Modulating valve RG4 - DN 25 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 3 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
25	1	Shaft - equal percentage G*	kvs = 0,25 m³/h	1.4404	H160657
			kvs = 0,4 m³/h	1.4404	H159245
			kvs = 0,63 m³/h	1.4404	H159244
			kvs = 1,0 m³/h	1.4404	H159243
			kvs = 1,6 m³/h	1.4404	H159140
			kvs = 2,5 m³/h	1.4404	H166601
			kvs = 4,0 m³/h	1.4404	H326212
			kvs = 6,3 m³/h	1.4404	H207739
			kvs = 10 m³/h	1.4404	H207038
	1	Shaft - equal percentage GD*	kvs = 0,25 m³/h	1.4404	H311383
			kvs = 0,4 m³/h	1.4404	H320892
			kvs = 0,63 m³/h	1.4404	H312777
			kvs = 1,0 m³/h	1.4404	H208609
			kvs = 1,6 m³/h	1.4404	H311745
			kvs = 2,5 m³/h	1.4404	H159141
			kvs = 4,0 m³/h	1.4404	H159142
			kvs = 6,3 m³/h	1.4404	H159143
			kvs = 10 m³/h	1.4404	H159144
26	1	Seat seal	kvs = 0,4 m³/h - kvs = 6,3 m³/h	EPDM	H77445
			kvs = 1,0 m³/h - kvs = 1,6 m³/h	HNBR	H172173
			kvs = 2,5 m³/h - kvs = 4,0 m³/h	FPM	H77444
			kvs = 6,3 m³/h - kvs = 10 m³/h	VMQ	H77443
27	1	Valve seat metal sealing	kvs = 0,25 m³/h	1.4404	H160650
			kvs = 0,4 m³/h		
			kvs = 0,63 m³/h	1.4404	H126717
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h	1.4404	H152848
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		

Item	Quantity	Description		Material	Part no.
27	1	Valve seat	kvs = 0,25 m³/h	1.4404	H317103
			kvs = 0,4 m³/h		
			kvs = 0,63 m³/h	1.4404	H179615
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h	1.4404	H126716
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H33476
			kvs = 10 m³/h		
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 0,25 m³/h	1.4404	H311384
			kvs = 0,4 m³/h		
			kvs = 0,63 m³/h	1.4404	H179830
			kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h	1.4404	H146941
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H146768
			kvs = 10 m³/h		
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			
		Item 3, 8, 10, 11, 12, 26 available as complete seal kits only			
	1	Seal kit		EPDM	H174408
	1	Seal kit		HNBR	H319113
	1	Seal kit		FPM	H312068
	1	Seal kit		VMQ	H325404
	*	**LD* = linear flow characteristic, soft sealing**			
	*	**GD* = equal percentage flow characteristic, soft sealing**			

Spare parts list:

Modulating valve RG4 - DN 40 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 4 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158110
2	1	Flange	FGX1	1.4404	H158103
3	2	Seal	FGN1	EPDM	H77292
			FGN1	HNBR	H172131
			FGN1	FPM	H77291
			FGN1	VMQ	H77290
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H158096
6	4	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	4	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø61	EPDM	H77464
			Ø61	HNBR	H170018
			Ø61	FPM	H77463
9	1	Housing cover		1.4404	H156409
10	1	Shaft seal		Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H157565
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
14.1		Washer	DIN 125 A I=8,4	A2-70	
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483

Item	Quantity	Description		Material	Part no.
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 1,0 m³/h	1.4404	H160669
			kvs = 1,6 m³/h	1.4404	H159401
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H169153
			kvs = 25 m³/h	1.4404	H175757
		Shaft - linear LD*	kvs = 1,0 m³/h	1.4404	H179618
			kvs = 1,6 m³/h	1.4404	H179620
			kvs = 2,5 m³/h	1.4404	H159476
			kvs = 4,0 m³/h	1.4404	H159477
			kvs = 6,3 m³/h	1.4404	H159478
			kvs = 10 m³/h	1.4404	H159479
			kvs = 16 m³/h	1.4404	H159480
			kvs = 25 m³/h	1.4404	H159481
		Shaft - equal percentage G*	kvs = 1,0 m³/h	1.4404	H159243
			kvs = 1,6 m³/h	1.4404	H159140
			kvs = 2,5 m³/h	1.4404	H166601
			kvs = 4,0 m³/h	1.4404	H326212
			kvs = 6,3 m³/h	1.4404	H207739
			kvs = 10 m³/h	1.4404	H207038
			kvs = 16 m³/h	1.4404	H331585
			kvs = 25 m³/h	1.4404	H163545

Spare parts list:

Modulating valve RG4 - DN 40 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 5 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
25	1	Shaft - equal percentage GD*	kvs = 1,0 m³/h	1.4404	H208609
			kvs = 1,6 m³/h	1.4404	H311745
			kvs = 2,5 m³/h	1.4404	H159141
			kvs = 4,0 m³/h	1.4404	H159142
			kvs = 6,3 m³/h	1.4404	H159143
			kvs = 10 m³/h	1.4404	H159144
			kvs = 16 m³/h	1.4404	H159145
			kvs = 25 m³/h	1.4404	H159146
26	1	Seat seal	kvs = 1,0 m³/h kvs = 1,6 m³/h - kvs = 2,5 m³/h kvs = 4,0 m³/h - kvs = 6,3 m³/h kvs = 10 m³/h	EPDM	H77445
				HNBR	H172173
				FPM	H77444
				VMQ	H77443
	1	Seat seal	kvs = 16 m³/h kvs = 25 m³/h	EPDM	H77470
				HNBR	H172175
				FPM	H77469
				VMQ	H77468
27	1	Valve seat metal sealing	kvs = 1,0 m³/h	1.4404	H126763
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h		
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
			kvs = 16 m³/h		
			kvs = 25 m³/h		
		Valve seat	kvs = 1,0 m³/h	1.4404	H312776
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h	1.4404	H126762
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H33479
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H33480
			kvs = 25 m³/h		

Item	Quantity	Description		Material	Part no.
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 1,0 m³/h		
			kvs = 1,6 m³/h		
			kvs = 2,5 m³/h	1.4404	H144862
			kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H141520
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H148260
			kvs = 25 m³/h		
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			
		Item 3, 8, 10, 11, 12, 26 available as complete seal kits only			
	1	Seal kit		EPDM	H174409
	1	Seal kit		HNBR	H319114
	1	Seal kit		FPM	H325381
	1	Seal kit		VMQ	H324330
	*	**LD* = linear flow characteristic, soft sealing**			
	*	**GD* = equal percentage flow characteristic, soft sealing**			

Spare parts list:

Modulating valve RG4 - DN 50 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 6 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158111
2	1	Flange	FGX1	1.4404	H158104
3	2	Seal	FGN1	EPDM	H77303
			FGN1	HNBR	H172132
			FGN1	FPM	H77302
			FGN1	VMQ	H77301
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H158097
6	4	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	4	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø73	EPDM	H77488
			Ø73	HNBR	H168714
			Ø73	FPM	H77487
9	1	Housing cover		1.4404	H148194
10	1	Shaft seal		Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H157567
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
14.1		Washer	DIN 125 A I=8,4	A2-70	
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483

Item	Quantity	Description		Material	Part no.
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H169153
			kvs = 25 m³/h	1.4404	H175757
			kvs = 40 m³/h	1.4404	H176315
	1	Shaft - linear LD*	kvs = 4,0 m³/h	1.4404	H159477
			kvs = 6,3 m³/h	1.4404	H159478
			kvs = 10 m³/h	1.4404	H159479
			kvs = 16 m³/h	1.4404	H159480
			kvs = 25 m³/h	1.4404	H149481
			kvs = 40 m³/h	1.4404	H159482
	1	Shaft - equal percentage G*	kvs = 4,0 m³/h	1.4404	H326212
			kvs = 6,3 m³/h	1.4404	H207739
			kvs = 10 m³/h	1.4404	H207038
			kvs = 16 m³/h	1.4404	H331585
			kvs = 25 m³/h	1.4404	H163545
			kvs = 40 m³/h	1.4404	H333827
	1	Shaft - equal percentage GD*	kvs = 4,0 m³/h	1.4404	H159142
			kvs = 6,3 m³/h	1.4404	H159143
			kvs = 10 m³/h	1.4404	H159144
			kvs = 16 m³/h	1.4404	H159145
			kvs = 25 m³/h	1.4404	H159146
			kvs = 40 m³/h	1.4404	H159147

Spare parts list:

Modulating valve RG4 - DN 50 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23		
Name:	Trytko	Shreshth		
Approved by:		Waltenb.		
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.0

Item	Quantity	Description		Material	Part no.
26	1	Seat seal	kvs = 4,0 m³/h kvs = 6,3 m³/h kvs = 10 m³/h	EPDM	H77445
				HNBR	H172173
				FPM	H77444
				VMQ	H77443
	1	Seat seal	kvs = 16 m³/h kvs = 25 m³/h	EPDM	H77470
				HNBR	H172175
				FPM	H77469
				VMQ	H77468
	1	Seat seal	kvs = 40 m³/h	EPDM	H77494
				HNBR	H165709
				FPM	H77493
				VMQ	H77492
27	1	Valve seat metal sealing	kvs = 4,0 m³/h		
			kvs = 6,3 m³/h		
			kvs = 10 m³/h		
			kvs = 16 m³/h		
			kvs = 25 m³/h		
			kvs = 40 m³/h		
	1	Valve seat	kvs = 4,0 m³/h	1.4404	H202927
			kvs = 6,3 m³/h	1.4404	H33481
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H33482
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H33483
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 4,0 m³/h		
			kvs = 6,3 m³/h	1.4404	H149114
			kvs = 10 m³/h		
			kvs = 16 m³/h	1.4404	H141521
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H144859

Item	Quantity	Description	Material	Part no.
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4		
		Item 3, 8, 10, 11, 12, 26 available as complete seal kits only		
	1	Seal kit	EPDM	H174410
	1	Seal kit	HNBR	H319115
	1	Seal kit	FPM	H325444
	1	Seal kit	VMQ	H324331
	*	**LD* = linear flow characteristic, soft sealing**		
	*	**GD* = equal percentage flow characteristic, soft sealing**		

Spare parts list:

Modulating valve RG4 - DN 65 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 8 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158112
2	1	Flange	FGX1	1.4404	H158105
3	2	Seal	FGN1	EPDM	H77314
			FGN1	HNBR	H172133
			FGN1	FPM	H77313
			FGN1	VMQ	H77312
4	4	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
5	1	Flange	FNX1	1.4404	H158098
6	4	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	4	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø81	EPDM	H77512
			Ø81	HNBR	H168759
			Ø81	FPM	H77511
9	1	Housing cover		1.4404	H151968
10	1	Shaft seal		Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H157568
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
14.1		Washer	DIN 125 A I=8,4	A2-70	
15	4	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483

Item	Quantity	Description		Material	Part no.
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 16 m³/h	1.4404	H169153
			kvs = 25 m³/h	1.4404	H175757
			kvs = 40 m³/h	1.4404	H176315
			kvs = 63 m³/h	1.4404	
	1	Shaft - linear LD*	kvs = 16 m³/h	1.4404	H159480
			kvs = 25 m³/h	1.4404	H159481
			kvs = 40 m³/h	1.4404	H159482
			kvs = 63 m³/h	1.4404	H159483
	1	Shaft - equal percentage	kvs = 16 m³/h	1.4404	H331585
			kvs = 25 m³/h	1.4404	H163545
			kvs = 40 m³/h	1.4404	H333827
			kvs = 63 m³/h	1.4404	H333843
	1	Shaft - equal percentage	kvs = 16 m³/h	1.4404	H159145
			kvs = 25 m³/h	1.4404	H159146
			kvs = 40 m³/h	1.4404	H159147
			kvs = 63 m³/h	1.4404	H159148

Spare parts list:

Modulating valve RG4 - DN 65 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23		
Name:	Trytko	Shreshth		
Approved by:		Waltenb.		
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.0

Item	Quantity	Description		Material	Part no.
26	1	Seat seal	kvs = 16 m³/h kvs = 25 m³/h	EPDM	H77470
				HNBR	H172175
				FPM	H77469
				VMQ	H77468
	1	Seat seal	kvs = 40 m³/h	EPDM	H77494
				HNBR	H165709
				FPM	H77493
				VMQ	H77492
	1	Seat seal	kvs = 63 m³/h	EPDM	H77518
				HNBR	H172178
				FPM	H77517
				VMQ	H77516
27	1	Valve seat metal sealing	kvs = 16 m³/h		
			kvs = 25 m³/h		
			kvs = 40 m³/h		
			kvs = 63 m³/h		
	1	Valve seat	kvs = 16 m³/h	1.4404	H326912
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H326914
			kvs = 63 m³/h	1.4404	H33486
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 16 m³/h	1.4404	H326913
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H326915
			kvs = 63 m³/h	1.4404	H148263
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			

Item	Quantity	Description	Material	Part no.
		Item 3, 8, 10, 11, 12, 26 available as complete seal kits only		
	1	Seal kit	EPDM	H174411
	1	Seal kit	HNBR	H325386
	1	Seal kit	FPM	H178772
	1	Seal kit	VMQ	H325382
	*	**LD* = linear flow characteristic, soft sealing**		
	*	**GD* = equal percentage flow characteristic, soft sealing**		

Spare parts list:

Modulating valve RG4 - DN 80 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 10 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158113
2	1	Flange	FGX1	1.4404	H158106
3	2	Seal	FGN1	EPDM	H77325
			FGN1	HNBR	H172134
			FGN1	FPM	H77324
			FGN1	VMQ	H77323
4	4	Hex. screw M10x20	DIN EN 24017	A2-70	H78809
5	1	Flange	FNX1	1.4404	H18844
6	8	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	8	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø94	EPDM	H77543
			Ø94	HNBR	H170075
			Ø94	FPM	H77542
9	1	Housing cover		1.4404	H156593
10	1	Shaft seal		Turcon MF6	H323082
11	1	Seat seal		EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
12	1	Bushing 20x9		PTFE + 25% carbon	H207154
13	1	Yoke		1.4308	H159379
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
14.1		Washer	DIN 125 A I=8,4	A2-70	
15	4	Hex. screw M10x16	DIN EN 24017	A2-70	H78768
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483

Item	Quantity	Description		Material	Part no.
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 16 m³/h	1.4404	H169153
			kvs = 25 m³/h	1.4404	H175757
			kvs = 40 m³/h	1.4404	H176315
			kvs = 63 m³/h	1.4404	
			kvs = 100 m³/h	1.4404	
	1	Shaft - linear LD*	kvs = 16 m³/h	1.4404	H159480
			kvs = 25 m³/h	1.4404	H159481
			kvs = 40 m³/h	1.4404	H159482
			kvs = 63 m³/h	1.4404	H159483
			kvs = 100 m³/h	1.4404	H159309
	1	Shaft - equal percentage G*	kvs = 16 m³/h	1.4404	H331585
			kvs = 25 m³/h	1.4404	H163545
			kvs = 40 m³/h	1.4404	H333827
			kvs = 63 m³/h	1.4404	H333843
			kvs = 100 m³/h	1.4404	
	1	Shaft - equal percentage GD*	kvs = 16 m³/h	1.4404	H159145
			kvs = 25 m³/h	1.4404	H159146
			kvs = 40 m³/h	1.4404	H159147
			kvs = 63 m³/h	1.4404	H159148
			kvs = 100 m³/h	1.4404	H159149

Spare parts list:

Modulating valve RG4 - DN 80 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 11 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
26	1	Seat seal	kvs = 16 m³/h kvs = 25 m³/h	EPDM	H77470
				HNBR	H172175
				FPM	H77469
				VMQ	H77468
	1	Seat seal	kvs = 40 m³/h	EPDM	H77494
				HNBR	H165709
				FPM	H77493
				VMQ	H77492
	1	Seat seal	kvs = 63 m³/h	EPDM	H77518
				HNBR	H172178
				FPM	H77517
				VMQ	H77516
	1	Seat seal	kvs = 100 m³/h	EPDM	H77549
				HNBR	H172180
				FPM	H77548
				VMQ	H77547
27	1	Valve seat metal sealing	kvs = 16 m³/h		
			kvs = 25 m³/h		
			kvs = 40 m³/h		
			kvs = 63 m³/h		
			kvs = 100 m³/h		
	1	Valve seat	kvs = 16 m³/h	1.4404	H105569
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H33487
			kvs = 63 m³/h	1.4404	H33488
			kvs = 100 m³/h	1.4404	H33489
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 16 m³/h	1.4404	H167160
			kvs = 25 m³/h		
			kvs = 40 m³/h	1.4404	H141525
			kvs = 63 m³/h	1.4404	H141523
			kvs = 100 m³/h	1.4404	H148265

Item	Quantity	Description	Material	Part no.
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4		
		Item 3, 8, 10, 11, 12, 26 available as complete seal kits only		
	1	Seal kit	EPDM	H174412
	1	Seal kit	HNBR	H334556
	1	Seal kit	FPM	H325658
	1	Seal kit	VMQ	H324332
	*	**LD* = linear flow characteristic, soft sealing**		
	*	**GD* = equal percentage flow characteristic, soft sealing**		

Spare parts list:

Modulating valve RG4 - DN 100 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 12 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158114
2	1	Flange	FGX1	1.4404	H158107
3	2	Seal	FGN1	EPDM	H77339
			FGN1	HNBR	H172135
			FGN1	FPM	H77338
			FGN1	VMQ	H77337
4	4	Hex. screw M10x20	DIN EN 24017	A2-70	H78809
5	1	Flange	FNX1	1.4404	H18846
6	8	Hex. screw M8x28	DIN EN 24017	A2-70	H78778
7	8	Hex. nut M8	DIN EN 24032	A2	H79281
8	2	Housing seal	Ø110,2	EPDM	H77583
			Ø110,2	HNBR	H170074
			Ø110,2	FPM	H77582
9	1	Housing cover	Stroke: 15mm	1.4404	H159888
			Stroke: 30mm		H319974
10	1	Shaft seal	Stroke: 15mm	Turcon MF6	H323082
			Stroke: 30mm		H200020
11	1	Seat seal	Stroke: 15mm	EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
	1	Seat seal	Stroke: 30mm	EPDM	H77467
				HNBR	H176676
				FPM	H77466
				VMQ	H77465
12	1	Bushing 20x9	Stroke: 15mm	PTFE + 25% carbon	H207154
		Bushing 30x9	Stroke: 30mm		H334067
13	1	Yoke	Stroke: 15mm	1.4308	H157572
			Stroke: 30mm		H319975
14	1	Hex. screw M8x16	DIN EN 24017	A2-70	H78772
14.1		Washer	DIN 125 A I=8,4	A2-70	

Item	Quantity	Description		Material	Part no.
15	8	Hex. screw M10x16	DIN EN 24017	A2-70	H78768
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
			Stroke: 30mm		H161762
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483
			M14x1,5 ,Stroke: 30mm		H205881
22	1	Coupling top small	for actuator 120	1.4301	H162484
	1	Coupling top big	for actuator 175-750	1.4301	H162485
	2	Coupling piece	Stroke: 30mm M14x1,5	1.4301	H205827
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 63 m³/h	1.4404	
			kvs = 100 m³/h	1.4404	
			kvs = 160 m³/h Stroke: 15mm	1.4404	
			kvs = 160 m³/h Stroke: 30mm	1.4404	
	1	Shaft - linear LD*	kvs = 63 m³/h	1.4404	H159483
			kvs = 100 m³/h	1.4404	H159309
			kvs = 160 m³/h Stroke: 15mm	1.4404	H167867
			kvs = 160 m³/h Stroke: 30mm	1.4404	H159484
	1	Shaft - equal percentage G*	kvs = 63 m³/h	1.4404	
			kvs = 100 m³/h	1.4404	H176760
			kvs = 160 m³/h Stroke: 15mm	1.4404	H175802
			kvs = 160 m³/h Stroke: 30mm	1.4404	
	1	Shaft - equal percentage GD*	kvs = 63 m³/h	1.4404	H159148
			kvs = 100 m³/h	1.4404	H159149
			kvs = 160 m³/h Stroke: 15mm	1.4404	H175422
			kvs = 160 m³/h Stroke: 30mm	1.4404	H159151

Spare parts list:

Modulating valve RG4 - DN 100 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23		
Name:	Trytko	Shreshth		
Approved by:		Waltenb.		
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.0

Item	Quantity	Description		Material	Part no.
26	1	Seat seal	kvs = 63 m³/h	EPDM	H77518
				HNBR	H172178
				FPM	H77517
				VMQ	H77516
	1	Seat seal	kvs = 100 m³/h	EPDM	H77549
				HNBR	H172180
				FPM	H77548
				VMQ	H77547
	1	Seat seal	kvs = 160 m³/h Stroke: 15mm Stroke: 30mm	EPDM	H77589
				HNBR	H172183
				FPM	H77588
				VMQ	H77587
27	1	Valve seat metal sealing	kvs = 63 m³/h		
			kvs = 100 m³/h		
			kvs = 160 m³/h Stroke: 15mm		
			kvs = 160 m³/h Stroke: 30mm		
	1	Valve seat	kvs = 63 m³/h	1.4404	H33490
			kvs = 100 m³/h	1.4404	H125799
			kvs = 160 m³/h Stroke: 15mm	1.4404	H125798
			kvs = 160 m³/h Stroke: 30mm	1.4404	
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 63 m³/h	1.4404	H149005
			kvs = 100 m³/h	1.4404	H141526
			kvs = 160 m³/h Stroke: 15mm	1.4404	H152311
			kvs = 160 m³/h Stroke: 30mm	1.4404	
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			

Item	Quantity	Description		Material	Part no.
				EPDM	H77518
				HNBR	H172178
				FPM	H77517
				VMQ	H77516
		Item 3, 8, 10, 11, 12, 33 available as complete seal kits only			
	1	Seal kit	Stroke: 15mm	EPDM	H174413
	1	Seal kit	Stroke: 15mm	HNBR	H338005
	1	Seal kit	Stroke: 15mm	FPM	H325389
	1	Seal kit	Stroke: 15mm	VMQ	H338004
	1	Seal kit	Stroke: 30mm	EPDM	H338007
	1	Seal kit	Stroke: 30mm	HNBR	H338009
	1	Seal kit	Stroke: 30mm	FPM	H338006
	1	Seal kit	Stroke: 30mm	VMQ	H338008
	*	**LD* = linear flow characteristic, soft sealing**			
	*	**GD* = equal percentage flow characteristic, soft sealing**			

Spare parts list:

Modulating valve RG4 - DN 125 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 14 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H158115
2	1	Flange	FGX1	1.4404	H18839
3	2	Seal	FGN1	EPDM	H77351
			FGN1	HNBR	H172136
			FGN1	FPM	H77350
			FGN1	VMQ	H77349
4	8	Hex. screw M10x25	DIN EN 24017	A2-70	H78811
5	1	Flange	FNX1	1.4404	H159201
6	8	Hex. screw M10x40	DIN EN 24017	A2-70	H78831
7	8	Hex. nut M10	DIN EN 24032	A2	H79287
8	2	Housing seal	Ø138	EPDM	H77608
			Ø138	HNBR	H172125
			Ø138	FPM	H77607
9	1	Housing cover	Stroke: 15mm	1.4404	H156218
			Stroke: 30mm		H202139
10	1	Shaft seal	Stroke: 15mm	Turcon MF6	H323082
			Stroke: 30mm		H200020
11	1	Seat seal	Stroke: 15mm	EPDM	H77442
				HNBR	H170176
				FPM	H77441
				VMQ	H77440
	1	Seat seal	Stroke: 30mm	EPDM	H77467
				HNBR	H176676
				FPM	H77466
				VMQ	H77465
12	1	Bushing 20x9	Stroke: 15mm	PTFE + 25% carbon	H207154
		Bushing 30x9	Stroke: 30mm		H334067
13	1	Yoke	Stroke: 15mm	1.4308	H157574
			Stroke: 30mm		H202128
14	1	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
14.1	1	Washer	DIN 125 A I=8,4	A2-70	H79594

Item	Quantity	Description		Material	Part no.
15	8	Hex. screw M10x18	DIN EN 24017	A2-70	H78807
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 15mm	1.4301	H161761
			Stroke: 30mm		H161762
21	1	Counternut	M10x1 , Stroke: 15mm	1.4301	H162483
			M14x1,5 ,Stroke: 30mm		H205881
22	1	Coupling top small	for actuator 120	1.4301	
	1	Coupling top big	for actuator 175-750	1.4301	H162485
	2	Coupling piece	Stroke: 30mm M14x1,5	1.4301	H205827
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 63 m³/h	1.4404	
			kvs = 100 m³/h	1.4404	
			kvs = 160 m³/h Stroke: 15mm	1.4404	
			kvs = 160 m³/h Stroke: 30mm	1.4404	
			kvs = 250 m³/h Stroke: 30mm	1.4404	
	1	Shaft - linear LD*	kvs = 63 m³/h	1.4404	H159483
			kvs = 100 m³/h	1.4404	H159309
			kvs = 160 m³/h Stroke: 15mm	1.4404	H167867
			kvs = 160 m³/h Stroke: 30mm	1.4404	H159484
			kvs = 250 m³/h Stroke: 30mm	1.4404	H202134
	1	Shaft - equal percentage G*	kvs = 63 m³/h	1.4404	H333843
			kvs = 100 m³/h	1.4404	H176760
			kvs = 160 m³/h Stroke: 15mm	1.4404	H175802
			kvs = 160 m³/h Stroke: 30mm	1.4404	
			kvs = 250 m³/h Stroke: 30mm	1.4404	

Spare parts list:

Modulating valve RG4 - DN 125 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23		
Name:	Trytko	Shreshth		
Approved by:		Waltenb.		
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.0

Item	Quantity	Description		Material	Part no.
25	1	Shaft - equal percentage GD*	kvs = 63 m³/h	1.4404	H159148
			kvs = 100 m³/h	1.4404	H159149
			kvs = 160 m³/h Stroke: 15mm	1.4404	H175422
			kvs = 160 m³/h Stroke: 30mm	1.4404	H159151
			kvs = 250 m³/h Stroke: 30mm	1.4404	H205833
26	1	Seat seal	kvs = 63 m³/h	EPDM	H77518
				HNBR	H172178
				FPM	H77517
				VMQ	H77516
	1	Seat seal	kvs = 100 m³/h	EPDM	H77549
				HNBR	H172180
				FPM	H77548
				VMQ	H77547
	1	Seat seal	kvs = 160 m³/h Stroke: 15mm Stroke: 30mm	EPDM	H77589
				HNBR	H172183
				FPM	H77588
				VMQ	H77587
	1	Seat seal	kvs = 250 m³/h Stroke: 30mm	EPDM	H77614
				HNBR	H172189
				FPM	H77613
				VMQ	H77612
27	1	Valve seat metal sealing	kvs = 63 m³/h		
			kvs = 100 m³/h		
			kvs = 160 m³/h Stroke: 15mm		
			kvs = 160 m³/h Stroke: 30mm		
			kvs = 250 m³/h Stroke: 30mm		
	1	Valve seat	kvs = 63 m³/h	1.4404	H160629
			kvs = 100 m³/h	1.4404	H159973
			kvs = 160 m³/h Stroke: 15mm	1.4404	H159974
			kvs = 160 m³/h Stroke: 30mm	1.4404	
			kvs = 250 m³/h Stroke: 30mm	1.4404	H202130

Item	Quantity	Description		Material	Part no.
34.1	1	Valve seat with punched cage (noise reduction)	kvs = 63 m³/h	1.4404	
			kvs = 100 m³/h	1.4404	H318045
			kvs = 160 m³/h Stroke: 15mm	1.4404	H204286
			kvs = 160 m³/h Stroke: 30mm	1.4404	
			kvs = 250 m³/h Stroke: 30mm	1.4404	H318046
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			
		Item 3, 8, 10, 11, 12, 26 available as complete seal kits only			
	1	Seal kit	Stroke: 15mm	EPDM	H174414
	1	Seal kit	Stroke: 15mm	HNBR	H338012
	1	Seal kit	Stroke: 15mm	FPM	H338010
	1	Seal kit	Stroke: 15mm	VMQ	H338011
	1	Seal kit	Stroke: 30mm	EPDM	H207294
	1	Seal kit	Stroke: 30mm	HNBR	H338015
	1	Seal kit	Stroke: 30mm	FPM	H338013
	1	Seal kit	Stroke: 30mm	VMQ	H338014
	*	**LD* = linear flow characteristic, soft sealing**			
	*	**GD* = equal percentage flow characteristic, soft sealing**			

Spare parts list:

Modulating valve RG4 - DN 150 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23			**SPX FLOW**
Name:	Trytko	Shreshth			
Approved by:		Waltenb.			
Date:					Page 16 of 17
Name:					**RN ATEX 01.170.0**
Approved by:					

Item	Quantity	Description		Material	Part no.
1	1	Housing	RG41-1FN1	1.4404	H205811
			RG42-12FN1		
2	1	Flange	FGX1	1.4404	H18858
3	2	Seal	FGN1	EPDM	H77357
			FGN1	HNBR	H172137
			FGN1	FPM	H77356
			FGN1	VMQ	H77355
4	8	Hex. screw M10x25	DIN EN 24017	A2-70	H78811
5	1	Flange	FNX1	1.4404	H205822
6	8	Hex. screw M10x40	DIN EN 24017	A2-70	H78831
7	8	Hex. nut M10	DIN EN 24032	A2	H79287
8	2	Housing seal	Ø165	EPDM	H77625
			Ø165	HNBR	H172126
			Ø165	FPM	H77624
9	1	Housing cover	Stroke: 30mm	1.4404	H205819
10	1	Shaft seal	Stroke: 30mm	Turcon MF6	H200020
11	1	Seat seal	Stroke: 30mm	EPDM	H77467
				HNBR	H176676
				FPM	H77466
				VMQ	H77465
12	1	Bushing 30x9	Stroke: 30mm	PTFE + 25% carbon	H334067
13	1	Yoke	Stroke: 30mm	1.4308	H205823
14	1	Hex. screw M8x20	DIN EN 24017	A2-70	H78776
14.1	1	Washer	DIN 125 A I=8,4	A2-70	H79594
15	8	Hex. screw M10x18	DIN EN 24017	A2-70	H78807
16	1	Elbow union	G1/8" Ø6mm slewable		H208825
17	1	Red. nipple G1/4" G1/8"	for actuator 120-750	MS58	H17018
18	1	Mounting plate for stroke		1.4301	H161763
19	2	Pan head screw M5x12	DIN EN ISO 1580	1.4301	H127391
20	1	Stroke indicator	Stroke: 30mm	1.4301	H161762
21	1	Counternut	M14x1,5 , Stroke: 30mm	1.4301	H205881

Item	Quantity	Description		Material	Part no.
22	1	Coupling top small	for actuator 120	1.4301	
	1	Coupling top big	for actuator 175-750	1.4301	
	1	Coupling piece	Stroke: 30mm M14x1,5	1.4301	H205827
23	1	ATEX-type label -Ex II -/2G IIB TX		Polyesterfolie	H329934
24	1	Type label APV valve CE		PolyesterfolieA F 50 PS-EB	H155642
25	1	Shaft - linear L*	kvs = 160 m³/h	1.4404	
			kvs = 250 m³/h	1.4404	
			kvs = 400 m³/h	1.4404	
	1	Shaft - linear LD*	kvs = 160 m³/h	1.4404	H159484
			kvs = 250 m³/h	1.4404	H202134
			kvs = 400 m³/h	1.4404	H329845
	1	Shaft - equal percentage G*	kvs = 160 m³/h	1.4404	
			kvs = 250 m³/h	1.4404	
			kvs = 400 m³/h	1.4404	
	1	Shaft - equal percentage GD*	kvs = 160 m³/h	1.4404	H159151
			kvs = 250 m³/h	1.4404	H205833
			kvs = 400 m³/h	1.4404	
26	1	Seat seal	kvs = 160 m³/h	EPDM	H77589
				HNBR	H172183
				FPM	H77588
				VMQ	H77587
	1	Seat seal	kvs = 250 m³/h	EPDM	H77614
				HNBR	H172189
				FPM	H77613
				VMQ	H77612

Spare parts list:

Modulating valve RG4 - DN 150 - ATEX

Diaphragm actuator MAT 3277 (Spring: closed or open) - 120, 175, 350, 750cm²
Digital electro-pneumatic positioner
Flow characteristic: linear or equal percentage

Date:	14.04.15	31.01.23		
Name:	Trytko	Shreshth		
Approved by:		Waltenb.		
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.0

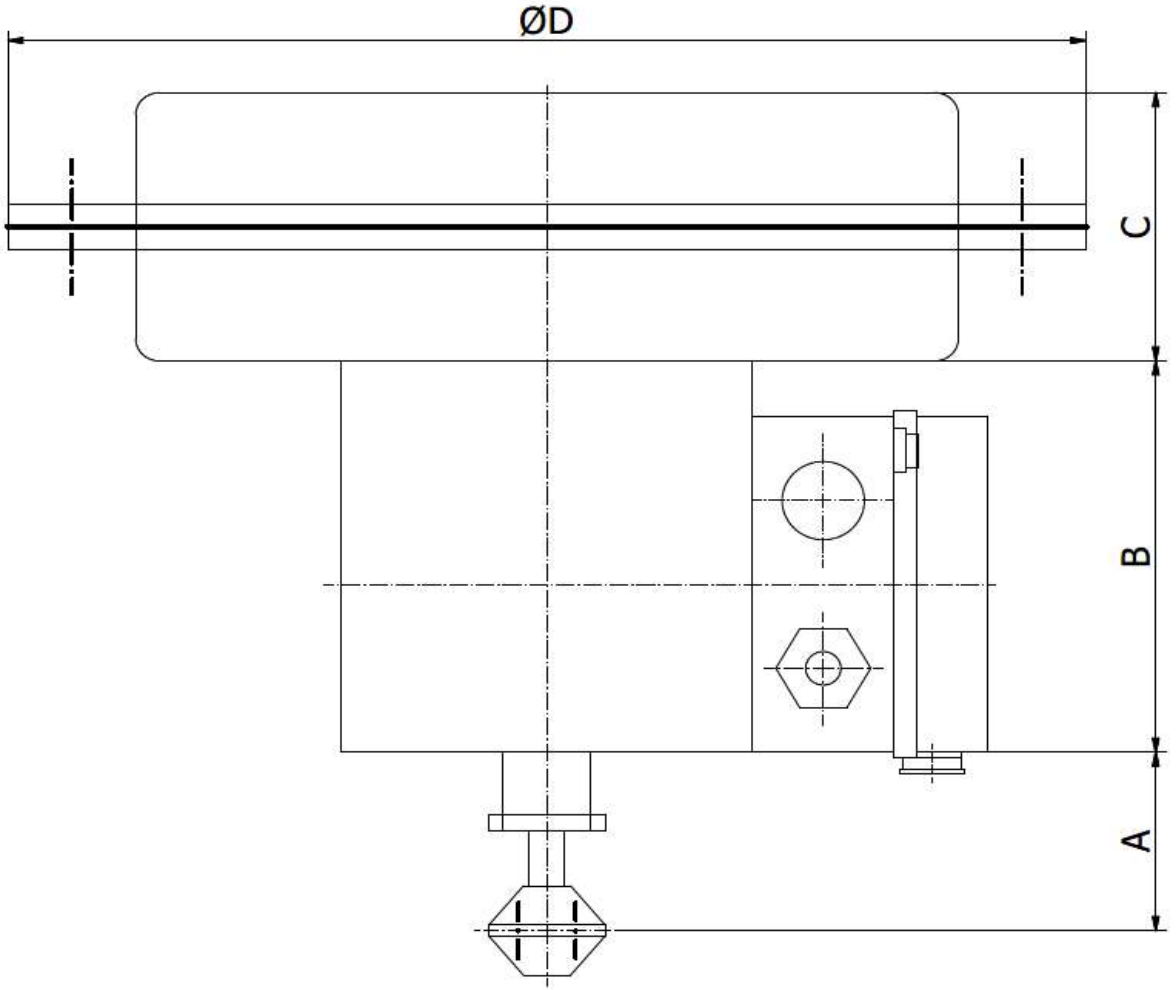
Item	Quantity	Description		Material	Part no.
27	1	Valve seat metal sealing	kvs = 160 m³/h	1.4404	
			kvs = 250 m³/h	1.4404	
			kvs = 400 m³/h	1.4404	
	1	Valve seat	kvs = 160 m³/h	1.4404	H320358
			kvs = 250 m³/h	1.4404	H205812
			kvs = 400 m³/h	1.4404	
27.1	1	Valve seat with punched cage (noise reduction)	kvs = 160 m³/h	1.4404	
			kvs = 250 m³/h	1.4404	H205815
			kvs = 400 m³/h	1.4404	
28	1	Pneumatic positioner MAT 3277 + TROVIS3730-1-X, IP3730-X see RN ATEX 01.170.13-4			
		Item 3, 8, 10, 11, 12, 26 available as complete seal kits only			
	1	Seal kit		EPDM	H207289
	1	Seal kit		HNBR	H338020
	1	Seal kit		FPM	H338018
	1	Seal kit		VMQ	H338019
	*	**LD* = linear flow characteristic, soft sealing**			
	*	**GD* = equal percentage flow characteristic, soft sealing**			

Item	Quantity	Description	Material	Part no.

Spare parts list:

RG4 - Pneumatic actuator MAT 3277 spring closed or open with digital el.-pneumatic positioner 3730 ATEX and 3731 ATEX

Date:	24.02.15	24.07.15	26.01.17	20.02.23	
Name:	Trytko	Trytko	Sunder	Shreshth	**SPX FLOW**
Approved by:	Knöchel	Knöchel		Waltenb.	
Date:					Page 1 of 2
Name:					**RN ATEX 01.170.13-4**
Approved by:					



Spare parts list:

RG4 - Pneumatic actuator MAT 3277 spring closed or open with digital el.-pneumatic positioner 3730 ATEX and 3731 ATEX

Date:	24.02.15	24.07.15	26.01.17	20.02.23
Name:	Trytko	Trytko	Sunder	Shreshth
Approved by:	Knöchel	Knöchel		Waltenb.
Date:				
Name:				
Approved by:				

SPX FLOW

RN ATEX 01.170.13-4

MFS - Membrane actuator normally closed

Area [cm²]	Set pressure [bar]	TROVIS 3730-1-110	IP 3730-13	IP 3731-321 ATEX	IP 3731-5 ATEX
		II 2G Ex ia IIC T6II 2D Ex tD A21IP66 T80°C	Ex. protectedFM/CSA Ex ia IIC T6	HART protocol II 2G Ex ia IIC T6II 2D Ex tD A21IP66 T80°C	Found FieldbusII 2G Ex ia IIC T6II 2D Ex tD A21IP66 T80°C
120	1,4 - 2,3	000163166717 H345311	000163147017 H334881		
175	1,7 - 3,3	000163162717 H344941		000163164717 H344961	
350	1,4 - 2,3	000163163017 H344944	000163163117 H344945		
350	2,1 - 3,3	000163163317 H344947			
750	1,4 - 2,4				

Dimensions

Area [cm²]	A [mm]	B [mm]	C [mm]	øD [mm]	Stoke [mm]
120	75	88	70	168	15
175	75	101	78	215	15
350	75	101	81	280	15
750	90	101	139	394	30

MFH - Membrane actuator normally open

Area [cm²]	Set pressure [bar]	TROVIS 3730-1-110	IP 3730-13	IP 3731-321 ATEX	IP 3731-5 ATEX
		II 2G Ex ia IIC T6II 2D Ex tD A21IP66 T80°C	Ex. protectedFM/CSA Ex ia IIC T6	HART protocol II 2G Ex ia IIC T6II 2D Ex tD A21IP66 T80°C	Found FieldbusII 2G Ex ia IIC T6II 2D Ex tD A21IP66 T80°C
120	0,2 - 1,0				
175	0,2 - 1,0	000163163517 H344949			
350	0,2 - 1,0				
350	0,6 - 3,0				
750	0,2 - 1,0				

APV RG4

MODULATING VALVE

FOR SPECIFIC ATEX-APPLICATIONS

SPXFLOW

SPX FLOW

Design Center

Gottlieb-Daimler-Straße 13

D-59439 Holzwickede, Germany

P: (+49) (0) 2301-9186-0

F: (+49) (0) 2301-9186-300

SPX FLOW

Production

Stefana Rolbieskiego 2

PL- Bydgoszcz 85-862, Poland

P: (+48) 52 566 76 00

F: (+48) 52 525 99 09

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