

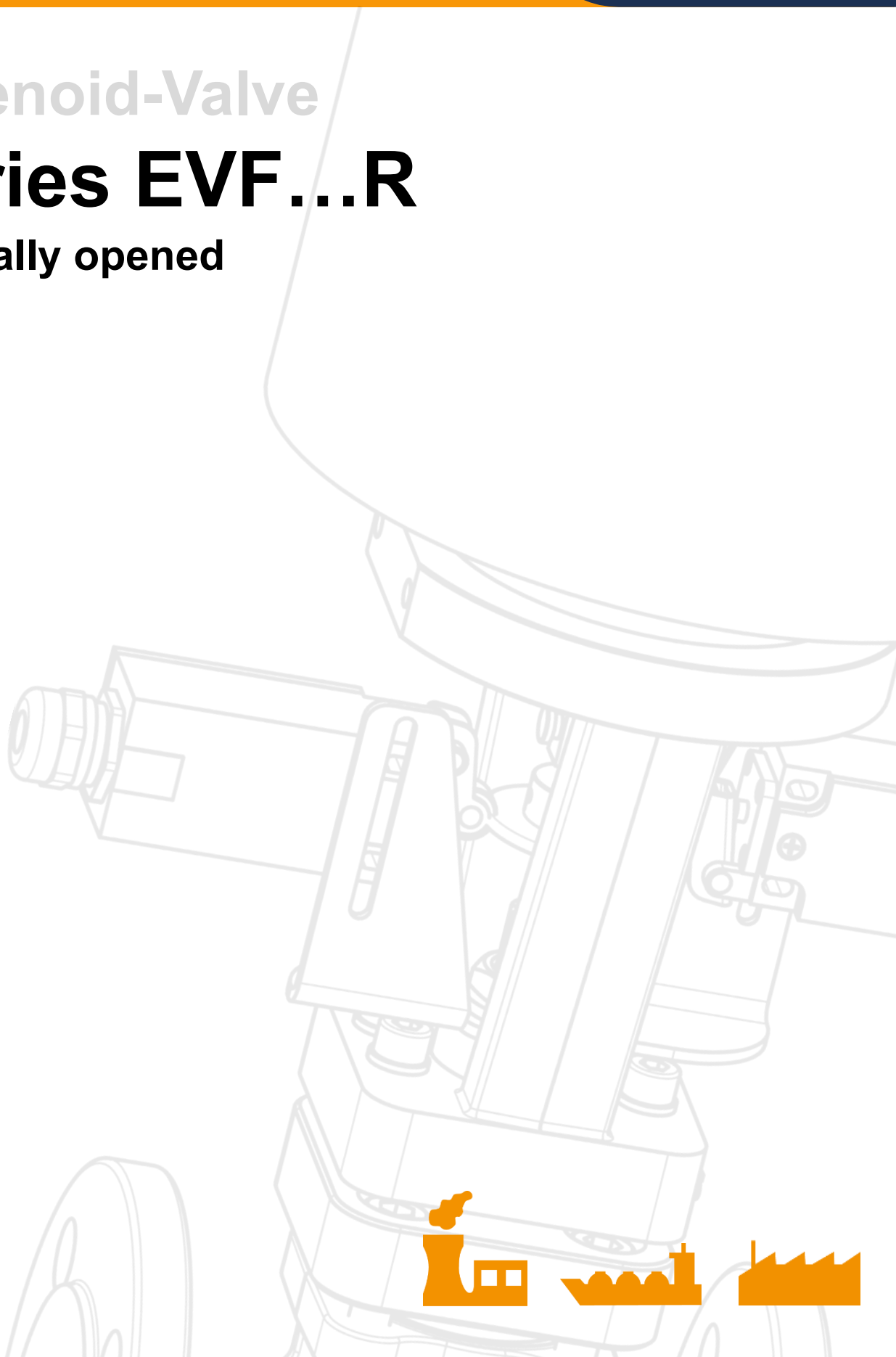


Operating manual

Solenoid-Valve

Series EVF...R

Normally opened



EN





Operating manual

Contents

1.0 General remarks

- 1.1 Valve data
- 1.2 Application

2.0 Danger notices

- 2.1 Safety terms
- 2.2 Safety notice
- 2.3 Qualified staff
- 2.4 Unauthorized modification and spare part production
- 2.5 Unauthorized operation
- 2.6 Safety information for the use in explosion-prone areas guideline 2014/34/EU
- 2.7 Safety information regarding guideline 2014/68/EU attachment I

3.0 Handling

- 3.1 Transport
- 3.2 Storage
- 3.3 Handling before mounting

4.0 Product description

- 4.1 Function
- 4.2 Technical data
- 4.3 Marking

5.0 Installation

- 5.1 Warning of dangers during Installation, operation and maintenance
- 5.2 Installation

6.0 Operation

- 6.1 Commissioning
- 6.2 Shutting down
- 6.3 Maintenance
- 6.4 Putting back into operating

7.0 Troubleshooting

- 7.1 Detection of defects
- 7.2 Troubleshooting plan

8.0 Dismantling of the valve

- 8.1 Replacement of wear parts

9.0 Warranty

10.0 Explanations on codes and directives

11.0 Drawing

- 11.1 Sectional drawing
- 11.2 List of parts

12.0 Declaration of conformity





Operating manual

1.0 General remarks

This operating manual includes instructions to assemble and operate the valve in the prescribed and safe way. **Additionally, the adequate operating instructions of each special solenoid drive must be considered.**

Series MG...(Xn)...	220.100.011 DE / 220.100.038 EN
Series MG...x	220.100.028 DE / 220.100.040 EN
Series MG...m	220.100.004 DE / 220.100.039 EN

If any difficulties appear that can not be solved by means of the operating manual, further information may be demanded from the manufacturer.

This operating manual is in accordance with the relevant valid EN safety standards and the valid prescriptions and rules of the Federal Republic of Germany. If the solenoids are used abroad of the FRG, the operator and/or the person who is responsible for the plant concept must take care that the valid national rules are met. The manufacturer reserves the right of any technical change and improvement. The use of these operating instructions suppose the qualification of the user according to paragraph 2.3 "qualified staff".

The operating staff must be trained in accordance with the operating instructions. The operating manual must always be available at the location where used.

1.1 Valve data

Manufacturer:

Uni-Geräte E. Mangelmann Elektrotechnische Fabrik GmbH
Holtumsweg 13, 47652 Weeze, Germany

Designation

Direct-acting, normally opened NO, spring-loaded automatic blow-off valve with solenoid actuator.

Working pressure:	10 - EVF...R	0 - 10 bar (0 - 1000 kPa)
	12 - EVF...R	0 - 12 bar (0 - 1200 kPa)
	35 - EVF...R	0 - 35 bar (0 - 3500 kPa)
	40 - EVF...R	0 - 40 bar (0 - 4000 kPa)
	50 - EVF...R	0 - 50 bar (0 - 5000 kPa)
	55 - EVF...R	0 - 55 bar (0 - 5500 kPa)
	100 - EVF...R	0 - 100 bar (0 - 10000 kPa)
	125 - EVF...R	0 - 125 bar (0 - 12500 kPa)

Type:

Fitting position:

Medium:

Medium temperature:

Ambient temperature:

10 - EVF...R

vertical drive

crude oil, heavy fuel oil, distillate fuel oil

-10 °C to + 200 °C (263 K to 473 K)

-10 °C to + 60 °C (263 K to 333 K)

Type:

Fitting position:

Medium:

Medium temperature:

Ambient temperature:

12 - EVF...R

vertical drive

humid air

0 °C to + 200 °C (273 K to 473 K)

-20 °C to + 60 °C (253 K to 333 K)





Operating manual

Type:
Fitting position:
Medium:
Medium temperature:
Ambient temperature:

12 - EVF...R
vertical drive
air
-20 °C to + 200 °C (253 K to 473 K)
-20 °C to + 60 °C (253 K to 333 K)

Type:
Fitting position:
Medium:
Medium temperature:
Ambient temperature:

35 - EVF...R
vertical drive
nitrogen, syngas
-20 °C to + 300 °C (253 K to 573 K)
-20 °C to + 60 °C (253 K to 333 K)

Type:
Fitting position:
Medium:
Medium temperature:
Ambient temperature:

40 - EVF...R
vertical drive
natural gas
-20 °C to + 210 °C (253 K to 483 K)
-20 °C to + 60 °C (253 K to 333 K)

Type:
Fitting position:
Medium:
Medium temperature:
Ambient temperature:

40 - EVF...R
vertical drive
methane, syngas, steam
-20 °C to + 250 °C (253 K to 523 K)
-20 °C to + 60 °C (253 K to 333 K)

Type:
Fitting position:
Medium:
Medium temperature:
Ambient temperature:

50 - EVF...R
vertical drive
natural gas
-20 °C to + 200 °C (253 K to 473 K)
-20 °C to + 60 °C (253 K to 333 K)

Type:
Fitting position:
Medium:
Medium temperature:
Ambient temperature:

55 - EVF...R
vertical drive
natural gas
-20 °C to + 230 °C (253 K to 503 K)
-20 °C to + 60 °C (253 K to 333 K)

Type:
Fitting position:
Medium:
Medium temperature:
Ambient temperature:

100 - EVF...R
vertical drive
crude oil, heavy fuel oil, distillate fuel oil
-10 °C to + 200 °C (263 K to 473 K)
-10 °C to + 60 °C (263 K to 333 K)

Type:
Fitting position:
Medium:
Medium temperature:
Ambient temperature:

125 - EVF...R
vertical drive
crude oil, heavy fuel oil, distillate fuel oil
-10 °C to + 200 °C (263 K to 473 K)
-10 °C to + 60 °C (263 K to 333 K)

Switching cycles: see operating instructions solenoid drive





Operating manual

Threaded connection at DIN ISO 228-1

Connection G	1/4 (2)	3/8 (3)	1/2 (5)	3/4 (7)	1 (10)	1 1/4 (12)	1 1/2 (15)	2 (20)	Test pressure (*) PT
12 - EVF...R	-	-	O	O	-	-	-	-	PT 16

(*) Test pressure to perform leakage test "No FUNCTION TEST"

O Acceptance test certificate 3.2 possible, - not available

Flange connection measures acc. to DIN EN 1092-2 / ANSI

Flansche DN	PN / ANSI	15 (5N)	20 (7N)	25 (10N)	32 (12N)	40 (15N)	50 (20N)	65 (25N)	80 (30N)	Test pressure (*) PT
10 - EVF...R	16	O	-	O*	-	-	-	-	-	PT 16
35 - EVF...R	63	-	-	O	-	-	-	-	-	PT 60
40 - EVF...R	40	X	-	-	-	-	-	-	-	PT 40
40 - EVF...R	63	O	-	-	-	-	-	-	-	PT 63
50 - EVF...R	63 / 600 lbs	X	-	-	-	-	-	-	-	PT 63
55 - EVF...R	63	X	-	-	-	-	-	-	-	PT 63
100 - EVF...R	100	-	-	O**	-	-	-	-	-	PT 100
125 - EVF...R	100	-	-	O**	-	-	-	-	-	PT 125

(*) Test pressure to perform leakage test "No FUNCTION TEST"

* Valve seat inserted to DN15; ** passage 12mm

X Type test acc. to 97/23/EC, Certificate 01 202 931-B-15-0023-01, O Acceptance test certificate 3.2 possible, - not available

Voltage:

VDC 12 – 440 (-15% to +10%)

VAC 24 – 500 (-15% to +10%)

Protection type:

IP54 or IP65

Frequency:

40 – 60 Hz

Power:

10 – 4000 W

Details to the electrical data can be found on the type sign and the adequate operating instructions of the solenoid drives.

1.2 Application

The solenoid-valves EVF-R.. are used for the throughput of a medium without control energy and for the discharge of a medium.

If used in other cases, the operator must carefully check if construction/design of valve, accessories and materials are suitable for the new application. The range of application is subject to the responsibility of the plant planner. The service life of the valve is 20 years or for the types 10-EVF...R, 35-EVF...R, 100-EVF...R 10.000 switching cycles.

2.0 Danger notices

2.1 Safety terms

The signal terms DANGER, CAUTION und NOTICE are used in this operating manual in case of notices concerning special dangers, or for unusual information, requiring a special marking.



DANGER!

means that in case of non-observance there is danger to life and/or considerable damage.



CAUTION!

means that in case of non-observance there is danger of injury and/or damage.





Operating manual



NOTICE!

means that attention is drawn to technical correlations/connections.

Observance of other, not especially marked notices concerning transport, assembly, operation and maintenance and other data (in the operating manual, product documentation and at the unit itself) is also essential, in order to avoid disturbances that might affect direct or indirect damage to property or injury to persons.

2.2 Safety notice

Non observance of safety instructions can lead to loss of any claim for damages.

Non observance can lead to the following mentioned dangers:

- Failure of important functions of the valve/plant.
- Endangering of persons by electrical or mechanical influences.
- Protection against accidental contact for moving parts may not be removed as long as the valve is in operation.
- Leakage of dangerous media (e.g. explosive, toxic, hot) must be removed in the way that there is no danger for persons or environment. Laws and regulations must be observed.

2.3 Qualified staff

These are persons who are familiar with erection, assembly, starting, operation and maintenance of the product and who have special qualifications acc. to their activities and functions, e.g.:

- Instruction and obligation to carry out and meet all regional and in-house orders and requirements.
- Education or instruction according to the safety engineering standards in use and maintenance of adequate safety and working protection equipment.
- Training in first aid.

2.4 Unauthorized modification and spare part production

Modification or changes of the valve are only allowed after agreement of the manufacturer. Original drawings and accessories authorized by the manufacturer are for safety purposes. The use of other parts or unauthorized changes at the valve by third persons may cancel and abolish the manufacturer's liability for resulting consequences.

2.5 Unauthorized operation

Operational reliability of the delivered valve is only guaranteed in case of determined use in accordance to paragraph 1 of the operating manual. **The application limits mentioned on the type sign may on no account be exceeded.**

2.6 Safety information for the use in explosion-prone areas guideline 2014/34/EU

- The temperature of the medium must not exceed the respective temperature class, and respectively, the respective maximum permitted medium temperature as per operation guideline.
- If the valve is heated (e.g. heating jacket), care must be taken, that the specified temperature class is kept in the time.
- The valve must be connected to the ground.
In the case most simple this can be realized via pipe screws by means of tooth disc.
Otherwise the connection to the ground must be implemented by other measures e.g. cable links.
- Control valves, electrical and electrical/mechanical drives as well as sensors must undergo a separate conformity check as per ATEX. In doing so the respective safety and explosion protection information in the operation instructions are to taken into special consideration.
- Any modifications whatsoever to the valve are not allowed. The ATEX approval is void with immediate effect if the valve is modified without prior authorization (even including painting).
- Uni-Geräte GmbH must be consulted before any modifications are made.





Operating manual

Furthermore we point out the guideline 1999/92/EG, which include the minimum regulations for the improvement of the health-related situation and the safety of the employees, who might be jeopardized by an explosive atmosphere.

2.7 Safety information regarding guideline 2014/68/EU attachment I



DANGER!

Uni-valves are not an accessory with a safety function as defined in the PED 2014/68/EU Article 2 (4) and Article 4 (1) (d) by category IV Use or classify!

3.0 Handling

3.1 Transport

For any transport works, the generally recognised technical rules and standards as well as rules for prevention of accidents must be observed.

During transport, storage and decommissioning, protective caps must be attached to the sides of the valve.

The goods to be transported must be carefully treated. During transport, the valve must be protected against strokes, impacts or vibration. The coat of lacquer may not be damaged. Transport temperature is -20 °C up to +60 °C.

Never transport the valve at screwed cable glands, appliance plugs or add-on units. The valve can be transported at ring nuts, flange borings or by means of a belt under the solenoid drive.

Transport the valve in a box or on a pallet with soft base and it smoothly on even floor. **Never put valve on attachment parts.**

The goods must be checked on completeness and transport damage. See also section 9.0

3.2 Storage

If the valve is not installed immediately after delivery, it must be stored properly.

- Storage temperature -20 °C up to +60 °C, dry and clean.
- The lacquer protects against corrosion in neutral dry atmosphere. Do not damage colour.
- In humid rooms, a drying agent or a heating resp. is necessary because of condensation of water.

Requirements according to DIN 7716 (products made of caoutchouc and rubber) must be met.

3.3 Handling before mounting

- In case of valve with protection caps, they must be removed before being mounted!
- Protect against atmospheric influences such as humidity.
- Appropriate treatment protects against damage.

4.0 Product description

The solenoid-valves in the EVF...R series are direct-acting, normally opened NO, spring-loaded automatic blow off valves with solenoid actuator.

The sectional drawing part 11.1 in Fig. 1 - Fig. 7 shows the valve construction.





Operating manual

4.1 Function

By switching on the solenoid drive, the solenoid core (207) is drawn against the upper part (106). The pressure spring (503) is pressed and the valve disc (200) closes the valve cross section. The valve is closed.

The valve opened by switching off, interruption or failure of power energy to solenoid drive. Due to press of the pressure spring (503) the valve disc (200) opens. The valve is open.

4.2 Technical data

Closing times: 0,3 – 0,7s depends upon nominal width

Opening times: < 1s

Solenoid-drive types MG...

Connection G	1/4 (2)	3/8 (3)	1/2 (5)	3/4 (7)	1 (10)	1 1/4 (12)	1 1/2 (15)	2 (20)
12 - EVF...R	-	-	016	018	-	-	-	-

Flange DN	15 (5N)	20 (7N)	25 (10N)	32 (12N)	40 (15N)	50 (20N)	65 (25N)	80 (30N)	100	125	150
10 - EVF...R	016	-	018	-	-	-	-	-	-	-	-
35 - EVF...R	-	-	019	-	-	-	-	-	-	-	-
40 - EVF...R	019	-	-	-	-	-	-	-	-	-	-
50 - EVF...R	019	-	-	-	-	-	-	-	-	-	-
55 - EVF...R	019	-	-	-	-	-	-	-	-	-	-
100 - EVF...R	-	-	019	-	-	-	-	-	-	-	-
125 - EVF...R	-	-	019	-	-	-	-	-	-	-	-

Drive types with "A" consist of pickup and holding winding

Max. valve loading by pipe power

The indicated moments may not work longer than 10s.

DN	8	10	15	20	25	32	40	50	65	80	100	125	≥150
Torsion Nm	20	35	50	85	125	160	200	250 ¹⁾	325 ¹⁾	400 ¹⁾	-	-	-
Bending Nm	35	70	105	225	340	475	610	1100	1600	2400	5000	6000	7600

¹⁾ Not valid in case of valves with flanges

Starting torque, pipe screws greased

DN	8	10	15	20	25	32	40	50	65	80	100	125	≥150
Torque Nm	20	30	30	30	30	50	50	50	50	50	80	160	160

Starting torque, product screws and nuts greased

Screw	M6	M8	M10	M12	M16	M20	M24
Torque Nm	5	11	22	39	70	110	150

4.3 Marking

The type sign on the solenoid drive has the following information:

- Fabricator
- Valve type, nominal width, pressure and temperature indication, fitting position
- Year of construction / production no.
- Valve class and valve group
- CE-Sign and no. of relevant location
- Fluid group and test pressure PT
- Solenoid drive type
- Electr. performance
- Voltage
- Frequency
- Protection type





Operating manual

When using solenoid drives for ex-protection zone 1 refer to information in the valid operating instructions.

Refer also to section 10.0

5.0 Installation

5.1 Warning of dangers during installation, operation and maintenance



DANGER!

Safe operation of the valve can only be guaranteed if it is installed, commissioned and maintained by qualified personnel (see point 2.3 "Qualified staff") correctly and in observance of the warnings in this operating manual. Apart from that, the operation safety order and the qualified use of tools and protection equipment must be guaranteed. The operating instructions for the valve must be observed during all work on or with the valve. Failure to observe these instructions may result in injury or in damage to the valve or other installations.

When the valve is used as a final sealing element, a safety precaution e.g. blanking disc, blind flange, etc., in accordance with the code of practice of the German Technical and Scientific Association for Gas and Water (DVGW) is recommended during all repair work.

5.2 Installation

Apart from the general installation guidelines, the following points should be observed:



NOTICE!

- Remove protective caps.
- The inside of the valve and the pipeline must be free from foreign particles.
- Observe the installation position in relation to the flow direction, see markings on the valve.
- Centre gaskets between the flanges.
- The connecting flanges must be aligned.
- Ensure that none of the components is strained during installation.
- The valve must not be used as a fixed point; it is supported by the pipework system.
- Protect valves from soiling, particularly during construction work.
- Thermal expansion of the pipework must be equalized using compensators.

For shut-off / blow-off valves: Install dirt trap upstream of the valve.

Observe the direction of flow.

The mesh size of the dirt trap must have the following properties:

- be smaller than 1.5 mm
- a test mandrel of 1 mm diameter to pass and not allow.

If two valves are combined to form a group, one dirt trap installed upstream of the first valve is sufficient. The Uni-Geräte dirt traps of the SFR Series are approved for use together with the solenoid-valves in accordance with EU/2016/426.



NOTICE!

Please observe the solenoid drive documentation.





Operating manual

6.0 Operation



DANGER!

Before commissioning a new installation or before starting up an installation again after repairs or modifications, ensure:

- The proper completion of all installation and assembly work!
- Commissioning only by „qualified staff“ (see point 2.3).
- Installation or repair of existing guards and protection equipment.

6.1 Commissioning

- Before commissioning, check the data on material, pressure, temperature and flow direction with the layout plan of the pipework system.
- Depending on the field of application, the local regulations have to be observed, e.g. the operation safety order.
- Residues in the pipework and the valve (dirt, weld beads, etc.) will inevitably result in leaks.
- Leakage inspection of the installed valve.

6.2 Shutting down

- Depending on the field of application, the local regulations have to be observed, e.g. the operation safety order.

6.3 Maintenance

Solenoid-valves have to be checked at regular intervals for proper function and internal leak tightness. The intervals for regular inspections have to be defined by the operator according to the operating conditions. Uni-Geräte recommends an internal visual inspection once a year and an overhaul of the valve after 2 years or after the following number of switching cycles at the latest:

Application temperature	≤ DN 25	≤ DN 80	≤ DN 150	> DN 150
≤ 25 °C	150 000	75 000	25 000	20 000
> 25 °C	50 000	25 000	25 000	5 000



NOTICE!

The service life of the types 10-EVF...R, 35-EVF...R, 100-EVF...R is 10.000 switching cycles.

Repair or maintenance works at the manufacturing company (UNI- Geräte)

- Valves and fittings must be delivered clean and free from substances which are harmful to health or to the environment.

Uni-Geräte prescribes the following maintenance intervals for valves with SIL requirements:

The safety requirements with regard to the maintenance intervals to be adhered are described in the **SIL manual** of the type series and must be complied with.

6.4 Putting back into operation

When putting a valve back into operation, ensure that all the necessary steps described in section 5.2 (Installation) and section 6.1 (Commissioning) are repeated.





Operating manual

7.0 Troubleshooting

7.1 Detection of defects



DANGER!

Be sure to observe the safety instructions during troubleshooting.

If the malfunctions cannot be remedied using the following **“Troubleshooting plan (7.2)”** please contact the manufacturer.

In the event of faults in the function or operating behaviour of the valve, check whether the installation work was carried out and completed as described in this operating manual.

Depending on the field of application, the operation safety order must be observed.

Check the data on material, pressure, temperature, voltage and flow direction with the layout plan of the pipework system. In addition, check whether the operating conditions correspond to the technical data in the data sheet or on the rating plate.

7.2 Troubleshooting plan

Malfunction	Possible causes	Remedy
No flow	Valve does not open	Switch off solenoid drive (800) Check, if there is still any residual voltage
	Protective caps were not removed	Remove protective caps
Low flow rate	Clogging in the pipework system	Check pipework system
	Contaminated strainer	Filter clean/exchange
Valve leaking at seat, no internal tightness	Valve seat gasket (400) or valve seat (100) damaged by external particles	See section 8 or replace valve
No external tightness	Gaskets damaged	See section 8 or replace valve
Valve does not close	Working pressure too high	Compare working pressure with the data on the rating plate
	Solenoid drive no voltage	Switch on solenoid drive (800) Check whether there is residual voltage, see section 4.1
Flange fracture (valve/ pipework)	Screws not tightened uniformly, mating flanges not aligned	Align pipework. Install new valve!



NOTICE!

Observe section 9.0 before all installation and repair work!

Observe section 6.4 when putting the valve back into operation!





Operating manual

8.0 Dismantling of the valve

In addition to the general installation guidelines and the operation safety order, the following points must also be observed:



DANGER!

- Depressurised pipework system
- Cooled medium
- Emptied installation
- Vent pipework systems containing corrosive, inflammable, aggressive or toxic media
- Have dismantling work carried out only by qualified staff (see point 2.3)
- For special application such as for oxygen use only the approved lubricants and appropriate sealing materials (BAM- approval)

8.1 Replacement of wear parts

Shut down the valve as described in section 6.2.

Flange version

Fig.2 10-EVF 5NH.R... / 10-EVF 10NH.R...

Fig.3 40-EVF 5NH.R...

Fig.4 35-EVF 10NH.R...

Fig.5 100-EVF 10N12.R... / 125-EVF 10N12.R...

De-installation of the limit switch mounting

Switch limit switch (803) to zero-potential. Open limit switch housing (120). Loosen hexagon nut (901/2) and screw it off and remove it together with switch actuator (513) from the limit switch spindle (243). Loosen hexagon nut (901/3) and remove it. Take off the limit switch housing (120) with terminal box (716) from the limit switch connection piece (246). Remove connecting piece limit switch (246) from solenoid housing (800).

Switch off and dismantle the solenoid drive as described in the operating manual of the solenoid drive.



DANGER!

After continuous operation, the solenoid drive may be hot! Danger of burns!

Replace the complete valve

Thread version

Fig. 1 12-EVF 5R... / 12-EVF 7R...

Flange version

Fig.6 40-EVF 5N.R..., 50-EVF 5N.R..., 55-EVF 5N.R...

Fig.7 50-EVF 5N.R..., 55-EVF 5N.R...

De-installation of the solenoid drive (800)

Switch off and dismantle the solenoid drive as described in the operating manual of the solenoid drive.



DANGER!

After continuous operation, the solenoid drive may be hot! Danger of burns!

Replace the complete valve





Operating manual

9.0 Warranty

Scope and period of the warranty is specified in the edition of the "General Terms of Business of the Uni-Geräte E. Mangelmann Elektrotechnische Fabrik GmbH" valid at the time of delivery or else in the purchase agreement.

We warranty that the valve is free from faults in line with the state of the art and for the confirmed field of application.

No warranty claims will be accepted for damage resulting from improper use or failure to observe these operating and installation instructions, the statutory accident prevention regulations, the EN, DIN and VDE standards and other codes and regulations.

Warranty claims will also not be accepted for damage occurring during operation due to operating conditions deviating from those specified in the data sheet or in other agreements.

Justified complaints will be remedied by reworking by us or specialist companies authorized by us.

Claims going beyond the scope of the warranty will not be accepted. The customer shall have no right to the supply of a replacement valve.

Maintenance work, installation of parts from other manufacturers, any modifications to the design and natural wear are not covered by the warranty.

Transport damage must be reported not to us but **without delay** to your responsible goods handling company, the railway company or the shipping agent as otherwise all claims for damages against these companies will be voided.

10.0 Explanation on codes and directives

The Commission of the European Union has laid down common directives resp. regulations for the free trading of goods within the Union specifying minimum requirements for safety and health protection. The CE symbol confirms that products comply with the EU directives resp. regulations, i.e. in conformity with the relevant, in particular harmonised standards. Directive 2014/68/EU applies to the valve (mechanical part).

Notes on Directive 2014/68/EU (Pressure Equipment Directive, DGRL):

It has been confirmed that the quality assurance in design control, manufacture and final acceptance of the manufacturer, Uni-Geräte E. Mangelmann Elektrotechnische Fabrik GmbH, satisfy the requirements of 2014/68/EU Article 14 Module H. The valves comply with the fundamental requirements of Directive 2014/68/EU. Valves in accordance with Article 1 Paragraph 2, f, v or Article 4 paragraph 3 are not allowed to have the CE Mark in accordance with Article 18.

Note concerning ex-guideline 2014/34/EU (explosion guideline ATEX):

The product is not subject to guideline 2014/34/EU, since due to the loads occurring during practical operation, there is no effective source of ignition even in case of an error case to be assumed. This also applies to spring loaded components in medium filled rooms. In case of electric drives, sensors or other electric components the application as per 2014/34/EU is to be checked separately.

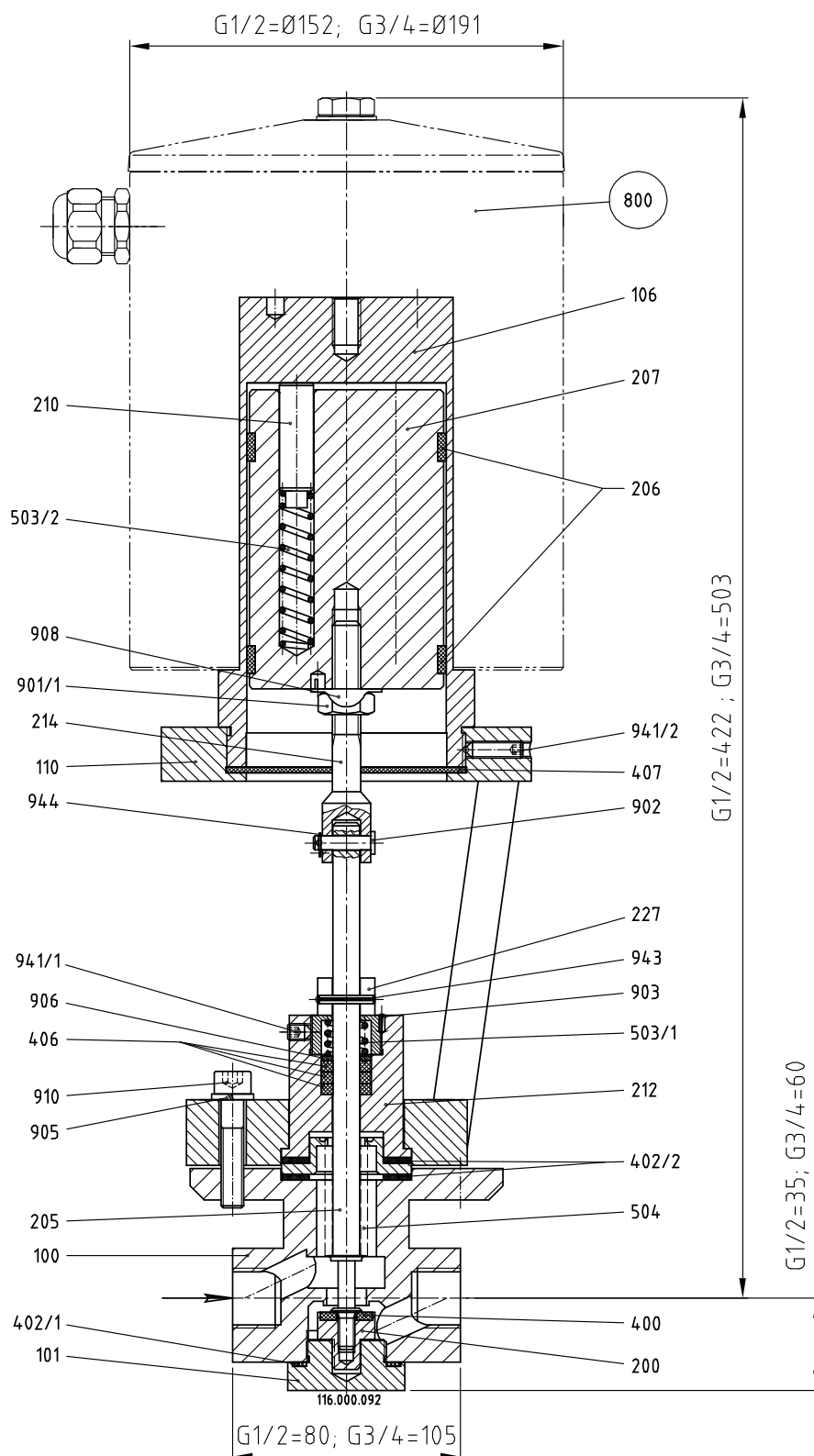




Operating manual

11.0 Drawing

11.1 Fig. 1 Thread version 12-EVF 5R... / 12-EVF 7R...



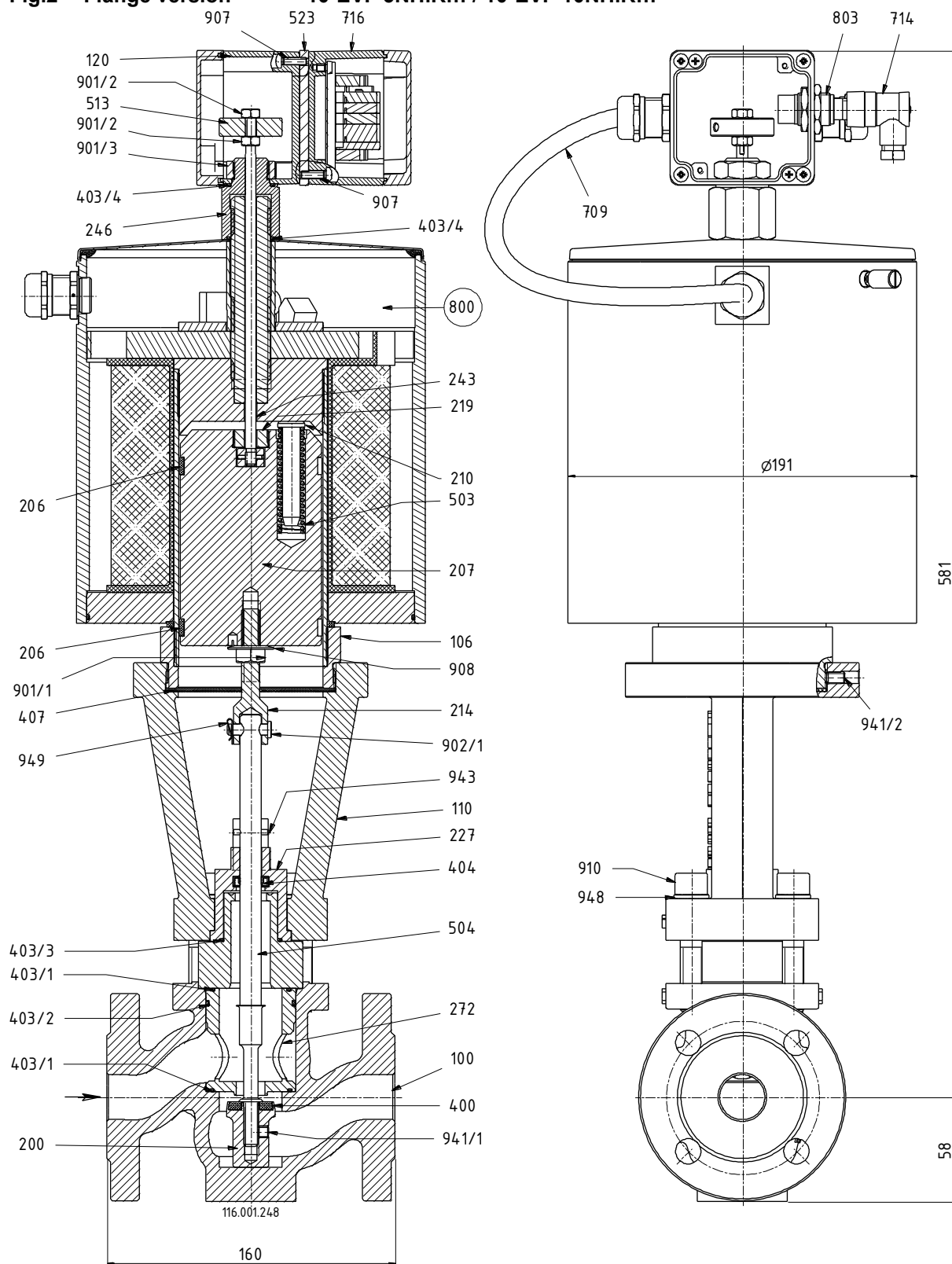
O = Spare part kit





Operating manual

Fig.2 Flange version 10-EVF 5NH.R... / 10-EVF 10NH.R...



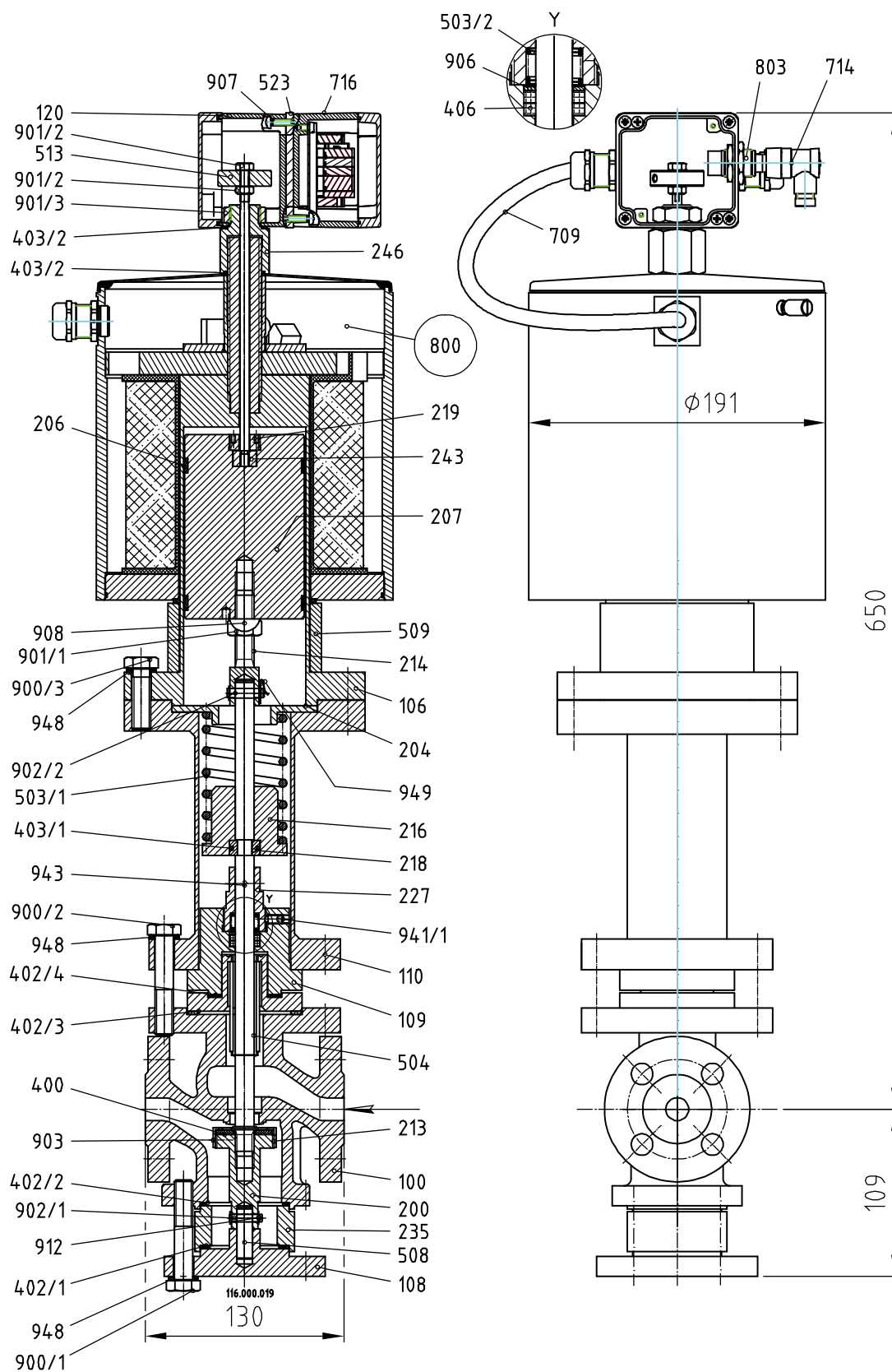
O = Spare part kit





Operating manual

Fig.3 Flange version 40-EVF 5NH.R... (PN 40)



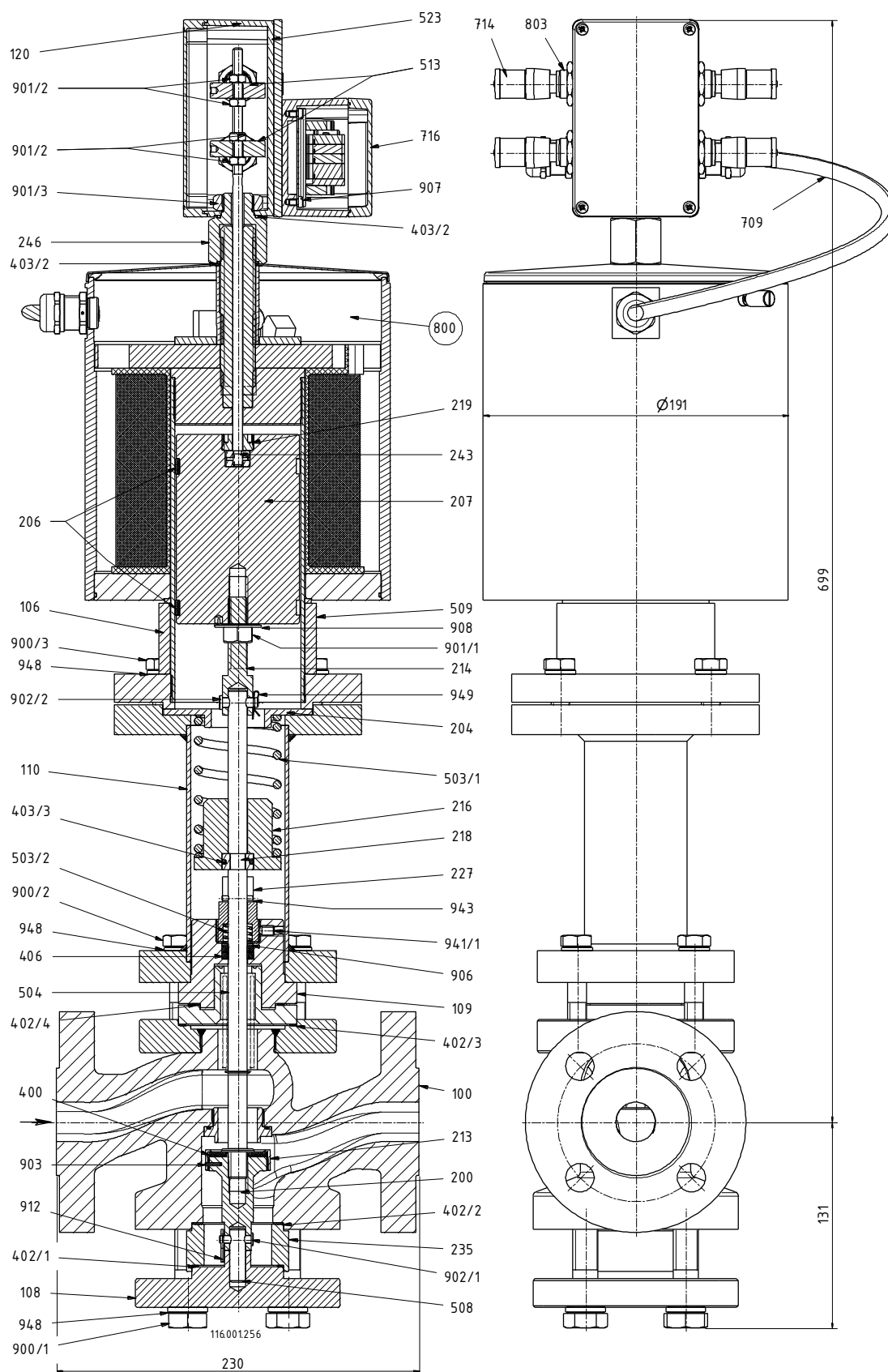
O = Spare part kit





Operating manual

Fig.4 Flange version 35-EVF 10NH.R...



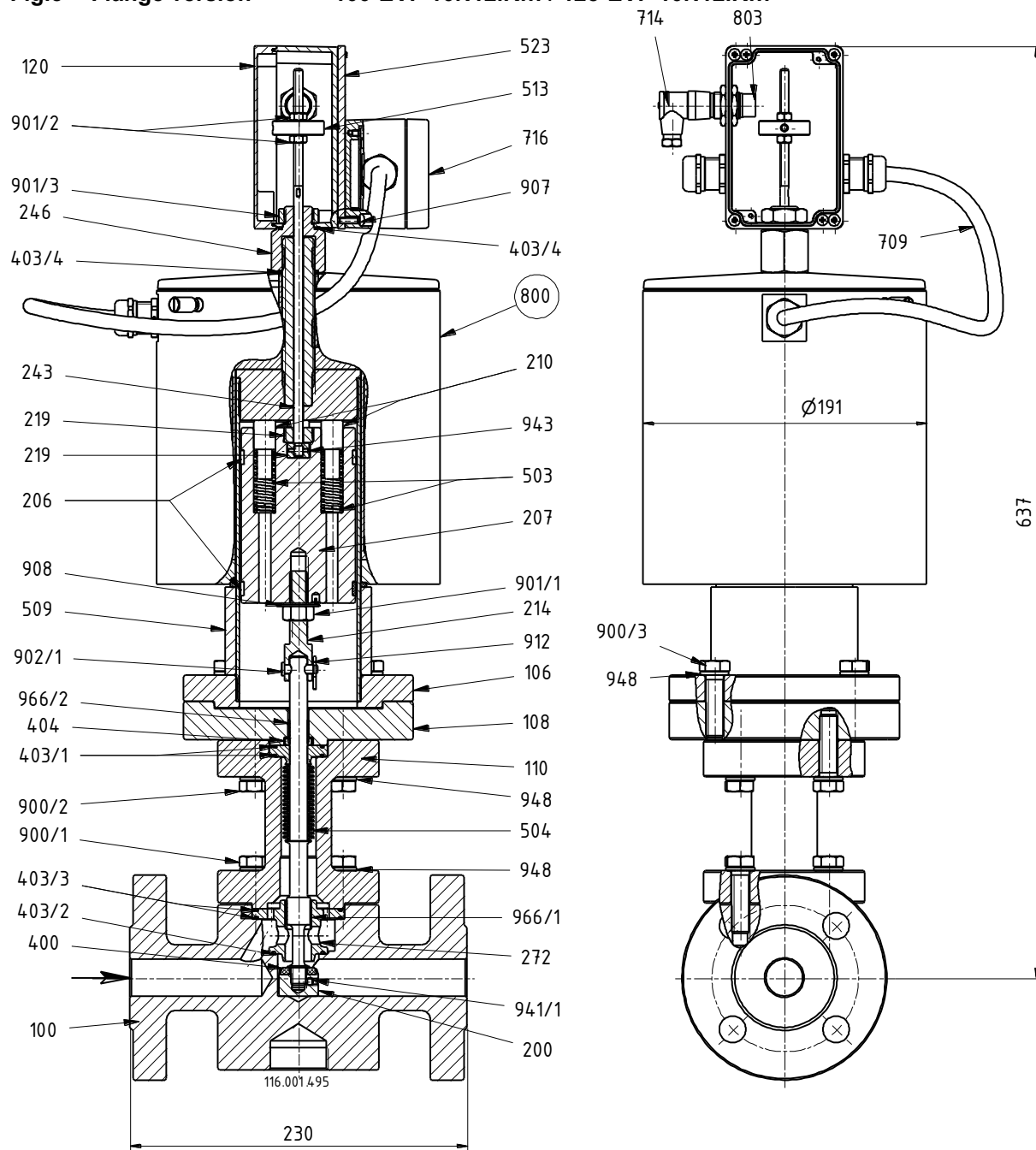
O = Spare part kit





Operating manual

Fig.5 Flange version 100-EVF 10N12.R... / 125-EVF 10N12.R...

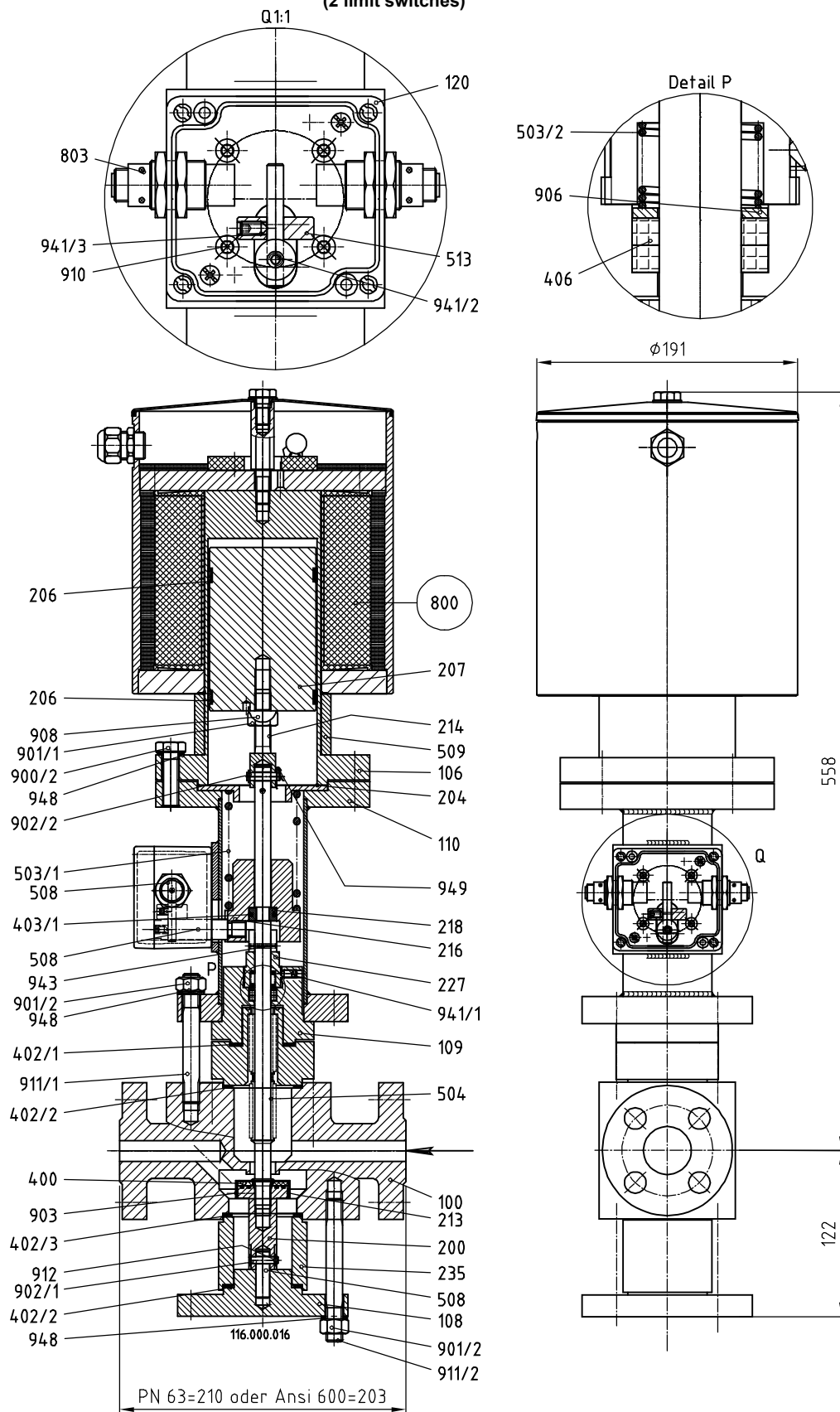




Operating manual

Fig.6 Flange version

**40-EVF 5N.R... / 50-EVF 5N.R... / 55-EVF 5N.R... (PN63)
(2 limit switches)**



O = Spare part kit

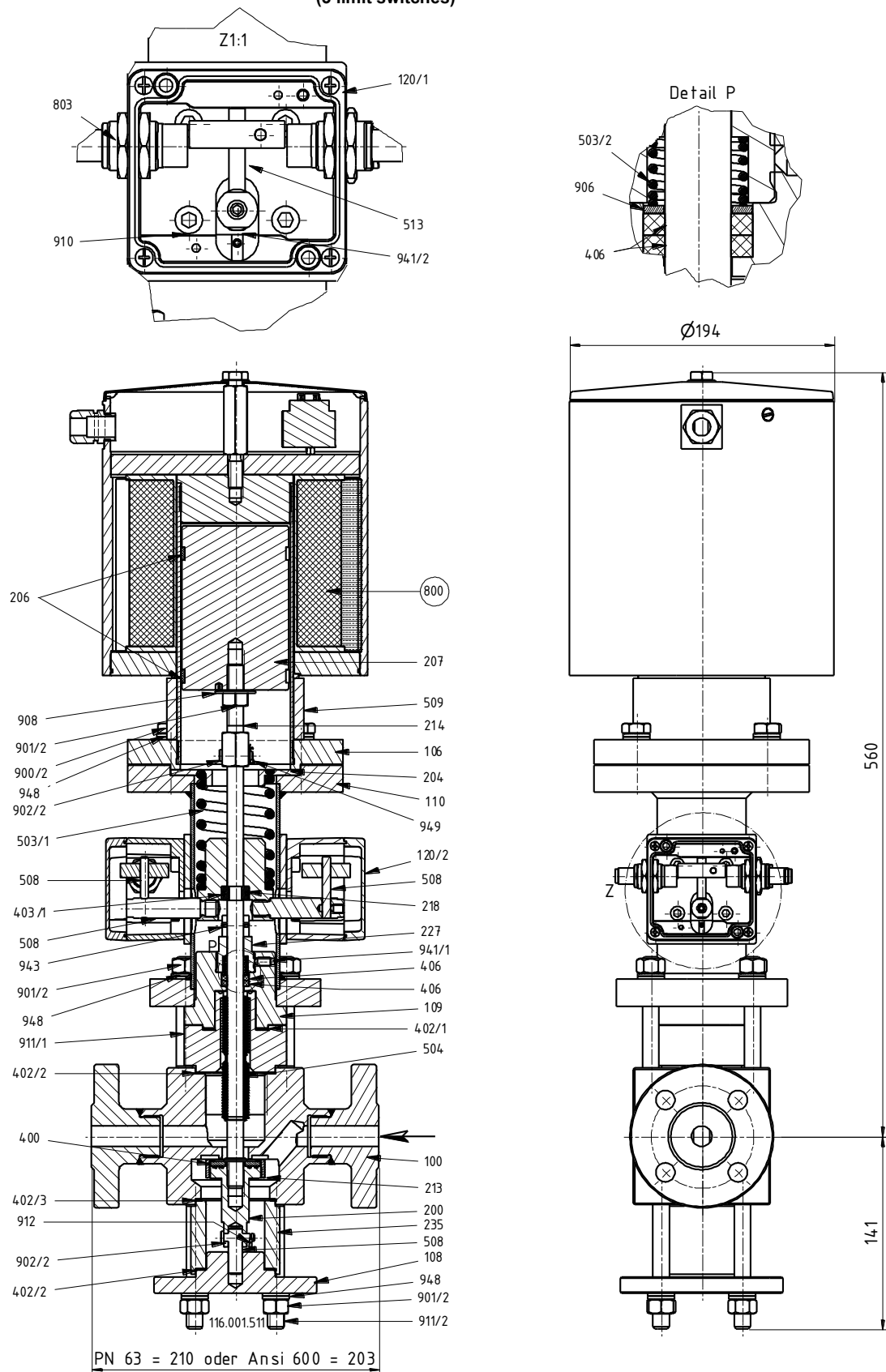




Operating manual

Fig.6 Flange version

50-EVF 5N.R... / 55-EVF 5N.R...
(3 limit switches)



O = Spare part kit





Operating manual

11.2 List of parts

Pos./ Item	Stück/ Qty.	Benennung	Description
100	1	Ventilgehäuse	Valve chamber
101	1	Gehäusemutter	Housing nut
106	1	Oberteil	Upper part
108	1	Gehäuseflansch	Housing flange
109	1	Gehäusezylinder	Housing cylinder
110	1	Distanzstück	Distance piece
120	1	Endschaltergehäuse	Limit switch housing
200	1	Ventilteller	Valve disc
204	1	Federführung	Spring guide
205	1	Ventilspindel	Valve spindle
206	2	Führungsring	Guide ring
207	1	Magnetkern	Magnet core
210	2	Federbolzen	Spring bolt
212	1	Spindelführung	Spindle guide
213	1	Gewinding	Threaded ring
214	1	Ventilstift	Valve pin
216	1	Federteller	Spring plate
218	1	Zweiteiliger Ring	Two-piece ring
219	1/2	Spindelmutter	Spindle nut
227	1	Verdrehschutz	Distort protection
235	1	Distanzrohr	Distance pipe
243	1	Endschalterspindel	Limit switch spindle
246	1	Verbindungsstück Endschalter	Limit switch connection piece
272	1	Ventilsitz R-Ausführung	Valve seat R-design
400	1	Ventiltellerdichtung	Valve disc seal
402/1	1	Flachdichtung	Flat gasket
402/2	1/2	Flachdichtung	Flat gasket
402/3	1	Flachdichtung	Flat gasket
402/4	1	Flachdichtung	Flat gasket
403/1	1/2	O-Ring	O-ring
403/2	1/2	O-Ring	O-ring
403/3	1/2	O-Ring	O-ring
403/4	2	O-Ring	O-ring
404	1	Lippenring	Lip-ring
406	2/3	Dichtungspackung	Packing
407	1	Staubschutzmembrane	Dust guard membrane
503/1	1/2	Druckfeder	Compression spring
503/2	1/3	Druckfeder	Compression spring
504	1	Faltenbalg komplett	Expansion bellows complete
508	1/3	Bolzen	Bolt
509	1	Distanzring	Distance ring
513	1/2	Endschalterbetätigung	Adjusting ring
523	1	Montagehalter	Assembly bracket
709	1	Anschlusskabel	Conneting cable
714	1/2/4	Leitungsdose	Line socket
716	1	Klemmkasten	Terminal box
800	1	Magnet-Antrieb	Solenoid drive
803	1/2/4	Endschalter	Limit switch
900/1	4	Sechskantschraube	Hex. head screw
900/2	4	Sechskantschraube	Hex. head screw
900/3	4	Sechskantschraube	Hex. head screw
901/1	1	Sechskantmutter	Hex. nut
901/2	2/4/8	Sechskantmutter	Hex. nut
901/3	1	Sechskantmutter	Hex. nut





Operating manual

Pos./ Item	Stück/ Qty.	Benennung	Description
902/1	1	Bolzen	Bolt
902/2	1	Bolzen	Bolt
903	1	Kerbstift	Cotter pin
905	4	Federring	Lock washer
906	1	Scheibe	Washer
907	4	Senkschraube	Countersunk bolt
908	1	Sicherungsblech	Safety plate
910	4	Innensechskantschraube	Cylinder head screw
911/1	4	Stiftschraube	Headless screw
911/2	4	Stiftschraube	Headless screw
912	1	Splint	Split pin
941/1	1	Gewindestift	Threaded pin
941/2	1	Gewindestift	Threaded pin
941/3	1	Gewindestift	Threaded pin
943	1	Schwerspannstift	Spring dowel sleeve-solid
944	1	Sicherungsring	Safe ring
948	4/12	Nordlockscheibe	Nordlock washer
949	1	SI-Sicherung	SI-fuse
966/1	1	DU-Buchse	DN-liner
966/2	1	DU-Buchse	DN-liner

Spare parts

Version	Fig.	Type	Spare parts
Thread version	Fig. 1	12 - EVF 5R... / 12 - EVF 7R...	Solenoid drive (800)
Flange version	Fig. 2	10 - EVF 5NH.R... / 10 - EVF 10NH.R...	Solenoid drive (800)
	Fig. 3	40 - EVF 5NH.R...	Solenoid drive (800)
	Fig. 4	35 - EVF 10NH.R...	Solenoid drive (800)
	Fig. 5	100 - EVF 10N12.R... / 125 - EVF 10N12.R...	Solenoid drive (800)
	Fig. 6	40- EVF 5N.R... / 50- EVF 5N.R... / 55- EVF 5N.R...	Solenoid drive (800)
	Fig. 7	50 - EVF 5N.R... / 55 - EVF 5N.R...	Solenoid drive (800)





Operating manual

12.0 Declaration of conformity



EG-Konformitätserklärung / EC-Declaration of conformity



Der Hersteller / The manufacturer

UNI Geräte E. Mangelmann
Elektrotechnische Fabrik GmbH
Holtumsweg 13
47652 Weeze, Germany
Telefon.: +49 (0) 2837/9134-0
E-Mail: info@uni-geraete.com
Homepage: www.uni-geraete.com

erklärt hiermit, dass folgende unten aufgeführte Absperr- / Abblasearmaturen
in den Betriebsdrücken 0 – 55 bar,
mit den Nennweiten DN15 – DN40
*hereby declares that the following shut-off / blow-off valves
in the operating pressure 0 – 55 bar,
with nominal sizes DN15 – DN40*

die Sicherheitsanforderungen der / meet the safety requirements of the

Richtlinie / Directive 97/23/EG

des Europäischen Parlaments und des Rates vom 29. Mai 1997 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten
über Druckgeräte und den folgenden Konformitätsbewertungsverfahren unterzogen wurden. Die alleinige Verantwortung für die
Ausstellung dieser Konformitätserklärung trägt der Hersteller.
*of the European Parliament and of the Council of 29 May 1997 on the approximation of the laws of the Member States
concerning pressure equipment and have undergone the following conformity assessment procedures. The manufacturer bears
sole responsibility for issuing this Declaration of Conformity.*

Konformitätsbewertungsverfahren Modul B / Conformity assessment procedure Module B

(Konformität auf der Grundlage einer EG-Baumusterprüfung)
(Conformity on the basis of a EC type examination)

Druckgerät / Baugruppe equipment / assemblies	Typ / type	Baureihe / Series
Absperrventil / shut off valve	Elektro-Magnet-Ventil / solenoid-valve	40-EVF..NH.Ü.Av..
		55-EVF..NH.Ü.Av..
Abblaseventil / blow off valve	Elektro-Magnet-Ventil / solenoid-valve	50-EVF..N.Xn.Ü.R.P..
		55-EVF..N.Xn.Ü.R.P..
		55-EVSO 15NH-4R.P.Xn..

Notifizierte Stelle / Notified body: TÜV Rheinland Industrie Service GmbH, Am grauen Stein, D-51105 Köln
Benannte Stelle-Nr. / Notified body no: 0035
Zertifikat / Certificate: 01 202 931-B-15-0023-01

Angewandte Normen / Applied standards

DIN EN 13611:2011, DIN 3394-1:2004; prEN 16678:2013;

Die Fa. UNI Geräte E. Mangelmann Elektrotechnische Fabrik GmbH ist zertifiziert nach
The company UNI Geräte E. Mangelmann Elektrotechnische Fabrik GmbH is certified according to
DIN EN ISO 9001:2015

Weeze, 28.03.2025

Ort und Datum / Place and date

Bevollmächtigter der Druckgeräterichtlinie
Authorized for pressure equipment directive
Robert Boese

