Operating and mounting manual
Safety shut off valve solenoid valve
EV / EVF

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1.0 General remarks

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

Series MG...	220.000.038
Series MG...X	220.000.040
Series MG…Xme	220.000.039

If any difficulties appear that can not be solved by means of the operation instructions, 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 Instruction

Manufacturer:
UNI Geräte E. Mangelmann
Elektrotechnische Fabrik GmbH
Holtumsweg 13
D-47652 Weeze
Telefon: +49 (0) 2837/9134-0
Fax: +49 (0) 2837/1444
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Homepage: www.uni-geraete.de

Designation
Directly functioning, currentless closed, spring safety shut off valve with magnet drive.

Type test acc.	to DIN EN 264
Working pressure:	5 EV(F) 5bar 10 EV(F) 10bar 25 EV(F) 25bar 40 EV(F) 40bar
Ambient temperature:	-10°C to + 60°°C (263K to 333K)
Medium temperature:	EV -10°C bis + 140°C (263K bis 413K) EVF -10°C bis + 200°C (263K bis 473K)
Fitting position:	vertical drive ± 5°, with order supplement „W“ vertical or horizontal.
Switching cycles:	1000 cycles/h for solenoid drives with one winding, 20 cycles/h for solenoid drives with pickup and holding winding MG…A_1/ A_2/ A_3 see section 4.2. 600 cycles/h for MG…A5

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

Flange DN Flange ANSI	PN	TÜV-Report-no.	15 1/2"	20 3/4"	25 3/4"	Design pressure PS = PN
5 EV..NÜ..92/93	25	S7/99	X	X	X	PN 16
10 EV..NÜ..92/93	40	S7/99	X	X	X	PN 25
25 EV..NÜ..92/93*	40	S7/99	X	X	X	PN 40
40 EV..NÜ..92/93	40	S7/99	X	X	X	PN 40

X Type test acc., **O** Acceptance test certificate 3.2 possible, - not available,
* For liquefied gas in its liquid form according to DIN 32725

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

Flange DN Flange ANSI	PN	TÜV-Report-no.	15 1/2"	20 3/4"	25 3/4"	Design pressure PS = PN
5 EVF..NÜ..92/93	25	S8/99	X	X	X	PN 16
10 EVF..NÜ..92/93	40	S8/99	X	X	X	PN 25
25 EVF..NÜ..92/93	40	S8/99	X	X	X	PN 40
40 EVF..NÜ..92/93	40	S8/99	X	X	X	PN 40

X Type test acc., **O** Acceptance test certificate 3.2 possible, - not available,

Voltage: 24V– 420V (–15% bis +10%)
Protection type: IP54 or IP65
Frequency: 40 – 60 Hz
Power: 10 – 4000W
Details to the electrical data can be found on the type signand the adeqaute operating instructions of the solenoid valves.

1.2 Application
The UNI Geräte solenoid valve EV and EVF are used as automatic safety shut-off valves to secure, to limit, shut-off and release Liquid gas heating installation and in steam boiler plant.

Qualified for fuel oil EL, M and S according to DIN 51603 and liquid gas to DIN 61522 in liquid state and other liquids having a viscosity rate up to 75mm²/s.

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.

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 unusal 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.

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 Personnel

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 constructive changes at the valve by third persons may cancel and abolish the manufacturere'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 94/9/EC

- 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.

Furthermore we point out the guideline 95/C332/06(ATEX 118a), 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.

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.

In case of transport, storage and stopping, the flange protection caps must be mounted at both valve flanges.

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 case or on a pallet with smooth base and put it softly on plain floor. **Never put the valve on limit switch box.**

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 lacquering 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 Assembly

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

4.0 Product description

The UNI-Geräte solenoid valves of the series EV and EVF are directly controlled currentless closed shut-off valves with fast shut-off function as per DIN EN 264 (liquid gas in liquid gas phase as per DIN 51622) with solenoid valve.

Sectional drawing 11.1 Fig. in Fig. 1 and 2 shows the valve construction.

4.1 Function

On switching on of the solenoid drive (800) the solenoid core (207) is pulled against the upper part of housing (106). The pressure spring (503) is further prestressed and the valve disk (200) opens the valve cross section. The valve is open.

On shutting off, supply interruption or supply failure the valve closes to the solenoid drive. The valve disk (200) closes due to the pre-stress of the pressure spring (503). The valve is closed.

4.2 Technical Data

Opening times: 0,3 – 0,7s , depends upon nominal width
Closing times: < 1s

Solenoid –drive types MG...

Flange DN **Flange ANSI**	**15** **1/2"**	**20** **3/4"**	**25** **1"**
5 EV...NÜ..92/93	014	014	016
10 EV...NÜ..92/93	016	016	019
25 EV...NÜA..92/93	016A1	016A1	018A2
25 EV…NÜA..92/93*	018A1	018A1	019A1
40 EV...NÜA..92/93	019A1	019A1	019A2

* For liquefied gas in its liquid

Flange DN **Flange ANSI**	**15** **1/2"**	**20** **3/4"**	**25** **1"**
5 EVF...NÜ..92/93	014	014	016
10 EVF...NÜ..92/93	016	016	019
25 EVF...NÜA..92/93	016A1	016A1	018A2
40 EVF...NÜA..92/93	019A1	019A1	019A2

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**	80	35	50	86	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.
- TÜV-report-no:
- Valve class and valve group acc. to DIN EN 264
- CE-sign and no. of relevant location to 97/23/EC
- Fluid group and test pressure PT to 97/23/EC
- Solenoid drive type
- Electr. performance
- Voltage
- Frequency
- Protection type

When using solenoid drives for x-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 the flange covers.
- 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.

The valve can be installed with upright but not suspended solenoid drive. Valves with order suffix “W” in the type designation can be installed with horizontal solenoid drive.

NOTICE!
Please observe the solenoid drive operating instructions (BTA).

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

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.

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 on solenoid drive (800)
		Check operating voltage
	Working pressure too high	Compare working pressure with the data on the rating plate
	Flange covers were not removed	Remove flange covers
Low flow rate	Clogging in the pipework system	Check pipework system
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	Connected voltage too high	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 10.0 before all installation and repair work!

Observe section 6.4 when putting the valve back into operation!

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)

8.1 Replacement of Wear Parts

Shut down the valve as described in section 6.2.

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!

Loosen the setscrew (941). Loosen the upper part of housing (106) by turning to the right and screwing it off.

NOTICE!
The complete upper part of housing (106) is under spring power.

Remove spring bolt (210) with pressure spring (503) from the solenoid core (207).
Release safety bolt (902/2) and remove it from the valve pin (214). Put the solenoid core (207) complete with valve pin (214) and dust guard membrane (407) onto a clear surface.
Loosen cylinder screw (910/2) and pull off the limit switch actuator (513) from the valve spindle (205) and remove it.

Loosen hex. nut (901/3) and remove it with limit switch consoles (512); remove limit switches (803) as well.

NOTICE!
Before doing so disconnect limit switch pos. 803.

EV (lip ring sealing)

Loosen cylinder screws (910/1) and remove them with the lock washers (905/1). Remove spacer (110).
Lift the complete parts (115; 200/1; 201; 205; 212; 249; 902/1; 912 und 950) out of the valve housing (100). Pull of the guiding parts (115; 212; 249) from the valve spindle (205).
Remove split-pin (912) and pull out safety bolt (902/1).

NOTICE!
The ball (950) falls out.

Remove the complete valve disk (200/1).

EVF (sealing of expansion bellows)

Drive spring dowel sleeve (943) out of torsion protection (227).
Loosen cylinder screws (910/1) and remove them with the lock washers (905/1). Lift off spacer (110).
Lift the complete parts (200/1; 201; 205; 227; 504, 507, 902/1, 912 und 950) out of the valve housing (100). Pull the torsion protection (227) off the valve spindle (205).
Remove split-pin (912) and pull out the safety bolt (902/1)n.

NOTICE!
The ball falls out (950).

Lift off the complete valve disk (200/1 respectively 200/2).

All parts marked as wear and tear parts are to be replaced. In case of damages at the valve disk sealing (400) the valve disk (200/1) is to be replaced completely. In case of damages and drag lines at the valve disk (200/2) the latter is to be replaced completely. In case of cracks and pressure marks at the expansion bellows (504) the latter is to be completely removed including the expansion bellows piece (507).

NOTICE!
Before installation O-rings (403/X), gaskets (402/X), lip rings (404/X) and in case of sealing metal against metal the packing (406) are to be replaced.

Assemble the valve in the reverse order to the dismantling.

CAUTION!
Install wear parts carefully and properly and do not damage them during assembly.

Examine the valve for internal and external leaks and finally carry out a function test.

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 authorised 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 Explanations on Codes and Directives

The Commission of the European Union has laid down common directives 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, i.e. in conformity with the relevant, in particular harmonised standards. Directives 90/396/EEC, 98/37/EC and 97/23/EC are of relevance for the gas solenoid valve (mechanical part).

Notes on Directive 90/396/EEC (Appliances Burning Gaseous Fuels):

The valves have been developed, manufactured and tested in accordance with harmonised standard DIN EN 161 (DIN 3394-1, DIN 3391) and comply with the relevant requirements of the Union Directive 90/396/EEC. Unless otherwise stated separately, this has been confirmed by a type test.

Notes on Directive 98/37/EC (Machinery Directive):

The valves have been developed, manufactured and tested in accordance with Directive 98/37/EC.

Notes on Directive 97/23/EG (Pressure Equipment Directive, DGRL):

It has been conformed 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 98/23/EC Annex III Module H. The gas solenoid valves comply with the fundamental requirements of Directive 97/23/EC. Valves with permissible working pressures ≤ 0.5 bar, DN ≤ 25 and all products certified in accordance with category I and with 94/396/EEC are not covered by 97/23/EC. Only products covered by DGRL and classified in category I or higher may be marked in accordance with 97/23/EC. Fluid group 1 includes explosive, inflammable and toxic media. Fluid group 2 includes media not belonging to fluid group 1.

Directives 73/23/EEC and 89/336/EEC are of relevance for the solenoid drive (800).

Notes on Directive 73/23/EC (Low Voltage Directive):

The drives have been developed, designed and manufactured in accordance with standard “Electromagnetic Devices” DIN EDV 0580. The requirements of the Low Voltage Directive that is applicable for rated voltages from 50 to 1000 V AC and 75 to 1500 V DC are therefore also satisfied.

Note on Directive 89/336/EEC (EMC Directive):

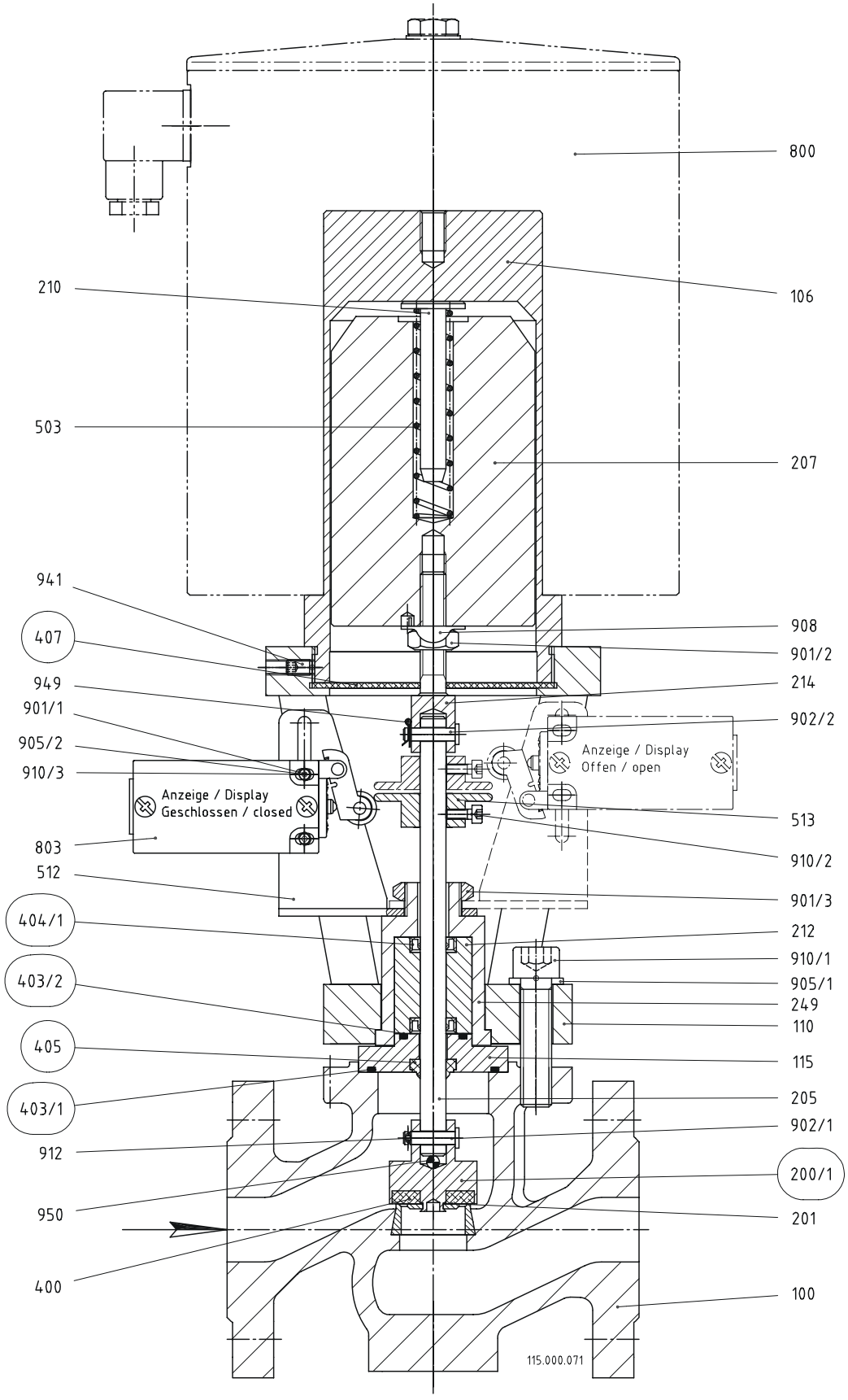
The magnet fulfil the requirements of the product family standards EN 55014-1,-2 , EN 61000-3-2, -3-3 for the industrial sector as well as for the sectors of housing, business and trade in small businesses.
When using AC and DC versions, the user must provide a suitable mains filter (e.g. X capacitor 47 nF) at the connection to the mains power supply in order to suppress the physical mains-borne turn-off interference of the solenoid coil.
Solenoid drives as drive elements for valves do not represent independently operated devices in the sense of the EMC Directive and are only further processed by specialist companies or are installed in a machine. Commissioning is not permitted until it has been determined that the whole machine or plant complies with the provisions of the EMC Directive.
For solenoid drives for explosion-proof zone 1, see the relevant operating manual for the solenoid drives.

Note concerning ex-guideline 94/9/EC (explosion guideline ATEX):

The product is not subject to guideline 94/9/EC, 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 for spring-loaded components, like for example the pneumatic drive. In case of electric drives, sensors or other electric components the application as per 94/9/EC is to be checked separately.

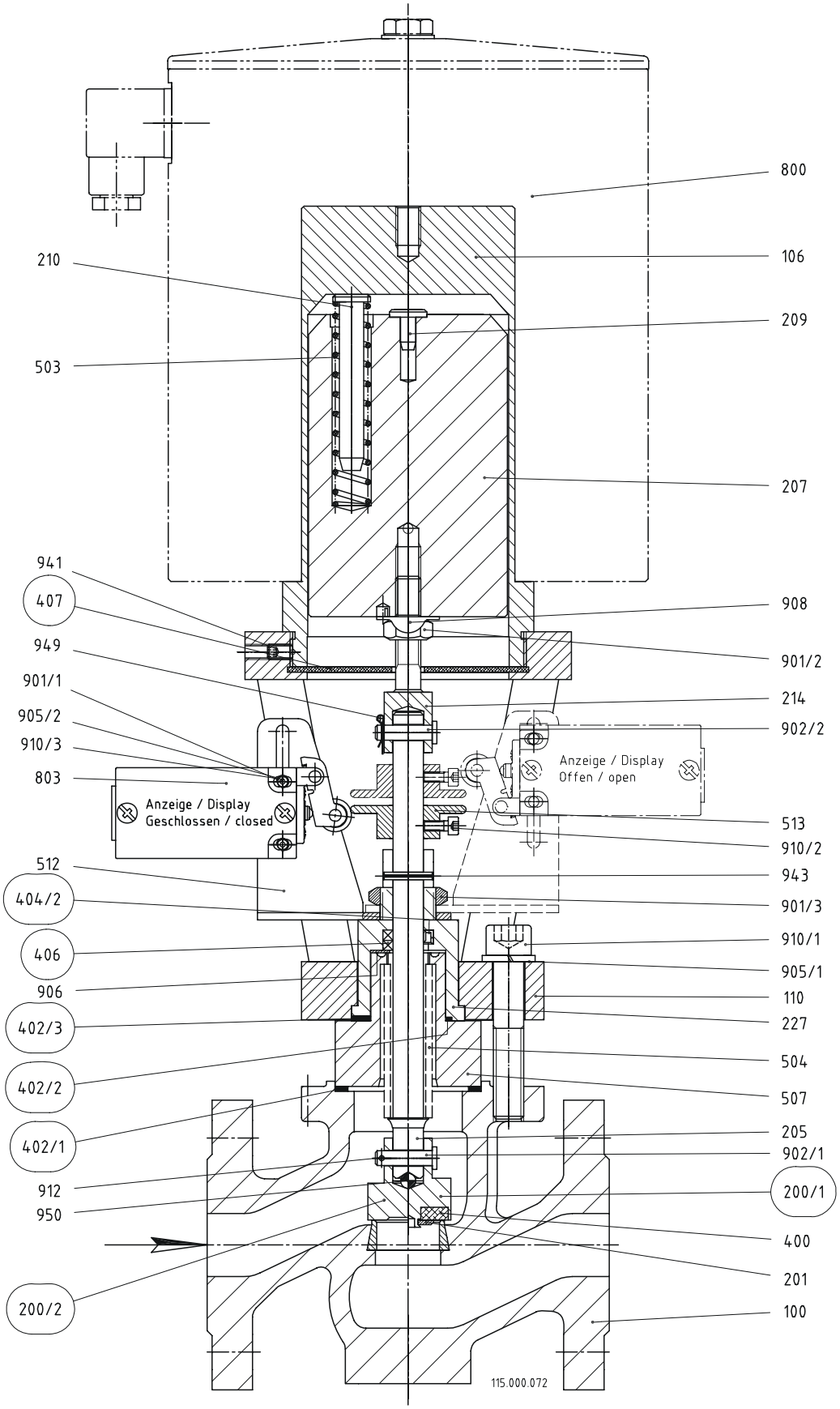
11.0 Drawing

11.1 Fig.1 EV sectional drawing



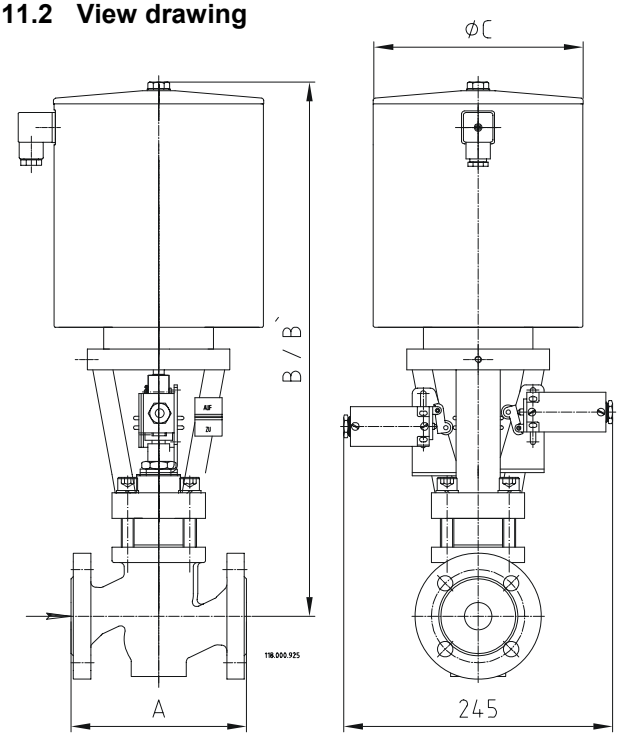
O = Wearing parts

11.1 Fig.2 EVF sectional drawing



O = Wearing parts

11.2 View drawing



11.3 List of parts

Pos./ Item	Stück/ Qty.	Benennung	Description
100	1	Ventilgehäuse	Valve chamber
106	1	Gehäuseoberteil	Upper part of housing
110	1	Distanzstück	Spacer
115	1	Dichtplatte	Sealing board
200/1	1	Ventilteller	Valve disk
200/2	1	Ventilteller	Valve disk
201	1	Tellerscheibe	Disc plate
205	1	Ventilspindel	Valve spindle
207	1	Magnetkern	Solenoid core
209	1	Abwurfbolzen	Discharge bolt
210	1	Federbolzen	Spring bolt
212	1	Spindelführung	Spindle guide
214	1	Ventilstift	Valve pin
227	1	Verdrehschutz	Torsion protection
249	1	Endschalter Konsolenhalter	Limit switch console owner
400	1	Ventiltellerdichtung	Valve disc sealing
402/1	1	Flachdichtung	Gasket
402/2	1	Flachdichtung	Gasket
402/3	1	Flachdichtung	Gasket
403/1	1	O-Ring	O-ring
403/2	1	O-Ring	O-ring
404/1	2	Lippenring	Lip-ring
404/2	1	Lippenring	Lip-ring
405	1	Abstreifring	Scraper ring
406	2	Packung	Packing
407	1	Staubschutzmembrane	Dust guard membrane
503	1	Druckfeder	Pressure spring
504	1	Faltenbalg	Expansion bellows
507	1	Faltenbalgstück	Expansion bellows piece
512	1/2	Endschalterkonsole	Limit switch console

Pos./ Item	Stück/ Qty.	Benennung	Description
513	1/2	Endschalterbetätigung	Switch actuator
800	1	Magnet-Antrieb	Solenoid drive
803	1/2	Endschalter	Limit switch
901/1	2/4	Sechskantmutter	Hex. nut
901/2	1	Sechskantmutter	Hex. nut
901/3	1	Sechskantmutter	Hex. nut
902/1	1	Bolzen	Bolt
902/2	1	Bolzen	Bolt
905/1	4	Federring	Lock washer
905/2	2/4	Federring	Lock washer
908	1	Sicherungsblech	Safety plate
910/1	4	Zylinderschraube	Cylinder screw
910/2	1/2	Zylinderschraube	Cylinder screw
910/3	2/4	Zylinderschraube	Cylinder screw
912	1	Splint	Split-pin
941	1	Gewindestift	Setscrew
943	1	Spannstift	Spring dowel sleeve
949	1	SL-Sicherung	SL-retainer
950	1	Kugel	Ball

Wearing parts

Pos./Item	Stück/ Qty.	Benennung	Description
200/1	1	Ventilteller kompl. (200, 201, 400, 902/1, 912, 950)	Valve disc compl. (200, 201,400, 902/1, 912, 950)
200/2	1	Ventilteller kompl. (200/2, 902/1, 912, 950)	Valve disc compl. (200/2, 902/1, 912, 950)
400	1	Ventiltellerdichtung	Valve disk sealing
402/1	1	Flachdichtung	Gasket
402/2	1	Flachdichtung	Gasket
402/3	1	Flachdichtung	Gasket
403/1	1	O-Ring	O-ring
403/2	1	O-Ring	O-ring
404/1	2	Lippenring	Lip-ring
404/2	1	Lippenring	Lip-ring
405	1	Abstreifring	Scraper ring
406	2	Packung	Packing
407	1	Staubschutzmembrane	Dust guard membrane

Dimension with standard solenoid drive

Flange DN Flange ANSI	Dimen -sion	15 1/2"	20 3/4"	25 1"
Installation lenght	**A**	130	150	160
5-EV…NÜ..92/93	**B**	447	447	447
	B`	565	565	578
	ØC	153	153	153
10-EV…NÜ..92/93	**B**	447	447	470
	B`	578	578	620
	ØC	153	153	191
25-EV…NÜ..92/93	**B**	447	447	470
	B`	578	578	620
	ØC	153	153	191
40-EV…NÜ..92/93	**B**	470	470	470
	B`	620	620	620
	ØC	191	191	191

Flange DN Flange ANSI	Dimen -sion	15 1/2"	20 3/4"	25 1"
Installation lenght	**A**	130	150	160
5-EVF…NÜ..92/93	**B**	466	466	466
	B`	583	583	597
	ØC	153	153	153
10-EVF…NÜ..92/93	**B**	466	466	490
	B`	597	597	640
	ØC	153	153	191
25-EVF…NÜ..92/93	**B**	466	466	490
	B`	597	597	640
	ØC	153	153	191
40-EVF…NÜ..92/93	**B**	490	490	490
	B`	640	640	640
	ØC	191	191	191

A = Dimension at DIN (resp. flanges ANSI and dimension DIN or flanges and dimension at DIN)
B` = Dimension for removing the solenoid drive

12.0 Declaration of Conformity

UNI-Geräte E. Mangelmann
Elektrotechnische Fabrik GmbH
Postfach 1261
D – 47649 Weeze

CE

Konformitätserklärung
Declaration of Conformity

Produkt *Product*	Sicherheitsabsperrventil *Safety shut-off valve*
Handelsbezeichnung *Trade Mark*	Magnetventil *Solenoid valve*
Baureihe *Series*	5-EV...NÜ.92.., . 5-EVF...NÜ.92.., 10-EV...NÜ.92.., 10-EVF...NÜ.92.., 25-EV...NÜ.92.., 25-EVF...NÜ.92.., 40-EV...NÜ.92.., 40-EVF...NÜ.92..
Nennweiten *Sizes*	DN 15 – DN 25

EU-Richtlinien *EC-Directives*		
	98/37/EG	Maschinenrichtlinie *Machinery Directive*
	97/23/EG	Druckgeräterichtlinie *Pressure Equipment Directive*
	73/23/EWG	Niederspannungsrichtlinie *Low-Voltage Directive*
	89/336/EWG	EMV- Richtlinie *EMC Directive*

Angewandte ***technische Spezifikation*** *Applied Technical Specification*	DIN EN 264 AD 2000
EG-Baumusterprüfung *EC-Type Examination*	DIN EN 264 TÜV Rheinland, Köln
Überwachungsverfahren *Surveillance Procedure*	97/23/EG Bureau Veritas S.A., Paris Notified Body 0062
Kennzeichnung *Marking*	98/37/EG CE 97/23/EG[1)]

Das Unternehmen UNI Geräte E. Mangelmann Elektrotechnische Fabrik GmbH bescheinigt hiermit, dass die o.a. Baureihe die grundsätzlichen Anforderungen der aufgeführten Richtlinien und Normen erfüllt.
UNI Geräte E. Mangelmann Elektrotechnische Fabrik GmbH confirms that the basic requirements of the above specified directives and standards are fulfilled.

Weeze, den 25.04.2006

Geschäftsführer
Managing Director

Leiter Konstruktion
Head of Design

[1)] Alle Nennweiten fallen unter Artikel 3 Abs. 3 der 97/23/EG, deswegen keine Kennzeichnung
All Sizes are mentioned in article 3 §3 of 97/23/EG therefore no marking

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