

# Operating and mounting manual flow control valves MEA / MEAF

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#### 1.0 General Remarks

This operating manual includes instructions to assemble and operate the flow control valves in the prescribed and safe way.

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 flow control valve 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 D-47652 Weeze

Telefon: +49 (0) 2837/9134-0 Fax: +49 (0) 2837/1444 E-Mail: info@uni-geraete.de www.uni-geraete.de

#### Designation

Actuators for control without zero obturation

Control base: Type approval acc. to EU/2016/426, Prod. ID. Nr. CE-0085-AQ0615

Based on DIN EN 16678:2016-02, DIN EN 13611:2015

**Working pressure:** 10-MEA 0 - 10 bar

25-MEA 0 - 25bar 40-MEA 0 - 40bar

Medium temperature: -20°C to + 60°C

Working pressure: 25-MEA..Ü 0 - 25bar

40-MEA..Ü 0 - 40bar

Medium temperature: -20°C to + 200°C

Working pressure: 40-MEAF 0 - 40bar

63-MEAF 0 - 63bar

Medium temperature: -20°C to + 400°C

Ambient temperature: -20°C to + 60°C

**Fitting position:** arbitrary

#### Threaded connection dimension at DIN ISO 228-1

Connection	Prod. Id.	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	21/2	3	Test pressure
G	CE-0085	(2)	(3)	(5)	(7)	(10)	(12)	(15)	(20)	(25)	(30)	(*) PT
10-MEA	AQ0615	X	X	Χ	Χ	Χ	Х	Х	Х	0	0	PN 16
25-MEA	-	0	0	0	0	0	0	0	0	-	-	PN 40

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

X Type test acc. to EU/2016/426, O Acceptance test certificate 3.2 possible, - not available,



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

Flange DN ANSI	PN	Prod. Id. CE-0085	15 (5N)	20 (7N)	25 (10N)	32 (12N)	40 (15N)	50 (20N)	65 (25N)	80 (30N)	100	Test pressure (*) PT
ANSI		CE-0065	(3N) 1/2"	3/4"	(10N) 1"	11/4"	11/2"	(20N) 2"	(25N) 21/2"	(30N) 3"	4"	() P1
10-MEA	16	AQ0615	Х	Х	Х	Х	Х	Х	Х	Х	0	PN 16
25-MEA	25	AQ0615	Х	0	0	0	0	0	0	0	0	PN 25
40-MEA	40	-	0	0	0	0	0	0	0	0	0	PN 40
40-MEAF	40	-	0	0	0	0	0	0	0	0	-	PN 40
63-MEAF	63	-	•	-	-	-	-	•	-	0	-	PN 63

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

X Type test acc. to EU/2016/426, O Acceptance test certificate 3.2 possible, - not available,

Optional: Handwheel with locking lever
Through passage drawn in (99)

#### 1.2 Application

The UNI-Geräte flow control valves MEA and MEAF are used everywhere in fuel engineering as presetting appliances for the volume.

The flow control valves are suitable for burnable gasses of the 1. 2. and 3. gas family as per G260 as well as for neutral gases and air. There also is a version made of materials suitable for aggressive gases, and as an alternative for fluid media.

If used in other cases, the operator must carefully check if construction/design of flow control 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 flow control butterfly 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 flow control 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 flow control 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 flow control 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 flow control valve by third persons may cancel and abolish the manufacturere's liability for resulting consequences.

#### 2.5 Unauthorized operation

Operational reliability of the delivered flow control 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 guidelines.
- If the valve is heated (e.g. heating jacket), care must be taken, that the specified temperature class is kept in the line.
- The valve must be connected to the ground.
   In the case most simple this can be realized via pipe screws by means of tooth discs.
   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 authorisation (even including painting).
- UNI-Geräte GmbH must be consulted before any modifications are made.

Furthermore we point out the guideline 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.

#### 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.

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.

Transport the valve in a case or on a pallet with smooth base and put it softly on plain floor.

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

#### 3.2 Storage

If the flow control 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 mounting

- Protect against atmospheric influences such as humidity (otherwise use drying agent).
- Appropriate treatment protects against damage.

#### 4.0 Product Description

The UNI-Geräte flow control valves MEA and MEAF are valves for adjusting without zero closure with (without) EC type examination certificate and product ID.-no. as per Gas Appliance Regulation EU/2016/426.

Sectional drawing 11.1 Fig. 1, 2, 3 and 4 shows the valve construction.

#### 4.1 Function

Control valves for fine adjustment of volume flow. The plant supplies the valves open.

#### 4.1.1 MEA volume flow setting (Fig. 1 and Fig. 2):

The volume flow is set using normal commercial tools.

- 1. Undo and remove the protective cap (505).
- 2. Undo the hex nut (901 and 901/1).
- 3. The volume flow is reduced by turning the cap nut (927) or the hex nut (901/2) clockwise.
  - In the case of the slotted and hexagon socket setting variant, this is done by turning the nut clockwise using a commercially available tool via the specified slot or the specified hexagon socket, see Fig. 3.1 and Fig. 3.2.
- 4. The volume flow is increased by turning the cap nut (927) or the hex nut (901/2) anticlockwise.
  - In the case of the slotted and hexagon socket setting variant, this is done by turning the nut anticlockwise using a commercially available tool via the specified slot or the specified hexagon socket, see Fig. 3.1 and Fig. 3.2.
- 5. Lock the hex nut (901 and 901/1).
- 6. Screw on and tighten the protective cap (505).



#### NOTE

Ensure that the O-ring (403/2) is correctly seated.

#### 4.1.2 MEA volume flow setting using handwheel and locking lever (Fig. 3.3):

- 1. Undo the tapered handle (951) by hand.
- 2. The volume flow is reduced by turning the handwheel (952) clockwise.
- 3. The volume flow is increased by turning the handwheel (952) anticlockwise.
- 4. Tighten the tapered handle (951) by hand.



#### 4.1.3 MEAF volume flow setting (Fig. 4):

The volume flow is set using normal commercial tools.

- 1. Undo and remove the protective cap (505).
- 2. Undo the hex nut (901/2).
- 3. The volume flow is reduced by turning the cap nut (927) clockwise.
- 4. The volume flow is increased by turning the cap nut (927) anticlockwise.
- 5. Lock the hex nut (901/2).
- 6. Screw on and tighten the protective cap (505).

#### 4.2 Technical data

- Thread connection for DIN ISO 228-1 (G1/4 G3)
- Flange connection for ISO 7005 (DN15 DN100)

#### 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.
- Product ID No. to EU/2016/426
- Valve class and valve group acc.
   to DIN EN 16678:2016-02
- CE-sign and no. of relevant location to 2014/68/EU
   Fluid group and test pressure PT to 2014/68/EU
- Protection type

Refer also to section 10.0.

#### 5.0 Installation

#### 5.1 Warning of dangers during installation, operation and maintenance



#### **DANGER!**

Safe operation of the flow control 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 flow control valve must be observed during all work on or with the flow control valve. Failure to observe these instructions may result in injury or in damage to the flow control valve or other installations.

#### 5.2 Installation

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



#### NOTICE!

- The fitting position for flow control valves is arbitary.
- The inside of the valve and the pipeline must be free from foreign particles.
- Centre gaskets between the flanges.
- The connecting flanges must be aligned.
- Ensure that none of the components is strained during installation.
- The flow control valve must not be used as a fixed point; it is supported by the pipework system.
- Protect flow control valve from soiling, particularly during construction work.
- Thermal expansion of the pipework must be equalized using compensators.



#### 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.
- Leakage inspection of the installed flow control 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

Flow control 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.

#### 6.4 Putting back into operation

When putting a flow control valves 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	Solution
no flow, or respectively low flow	Control valve cannot be adjusted	Greasing of valve spindle See section 8 or exchange flow control valve
	Clogging of pipe systems External matter in pipe system	Check pipe system Clean pipe system
no flow, or respectively low flow	Control valve cannot be adjusted	Greasing of valve spindle See section 8 or exchange flow control valve
No external tightness	Gaskets damaged	See section 8 or replace valve





#### NOTICE!

Observe section 9.0 before all installation and repair work!

Observe section 6.4 when putting the valve back into operation!

#### 8.0 Replace the Flow Control 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)

In case of damages at the valve seat or the sealing elements the complete flow control valve MEA or MEAF must be exchanged.

#### 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. Regulation EU2016/426 and Directive 2014/68/EU are of relevance for the gas solenoid valve (mechanical part).

#### Notes on Regulation EU/2016/426 (Gas Appliances Regulation GAR):

The valves have been developed, manufactured and tested in accordance with harmonised standard DIN EN 16678 and comply with the relevant requirements of the Union Regulation EU/2016/426. Unless otherwise stated separately, this has been confirmed by a type test.

#### 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 gas solenoid valves comply with the fundamental requirements of Directive 2014/68/EU. Valves in according to Article 1 Paragraph 2,f,v or Article 4 paragraph 3 are not allowed to have the CE mark in according to Article 18.

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

The product is not subject to guideline 214/34/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 gas-filled rooms. In case of electric drives, sensors or other electric components the application as per 2014/34/EU is to be checked separate



11.0 Drawing

# 11.1 Sectional drawing

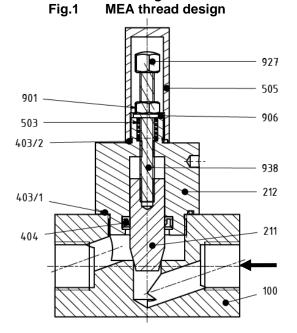


Fig.2 MEA flange design

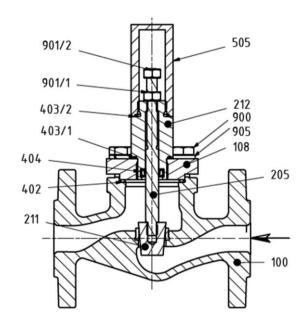


Fig. 3 Other variants for setting the volume flow

Fig.3.1 Setting using the slot

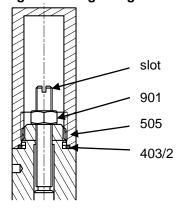


Fig.3.2 Setting using the hexagon socket

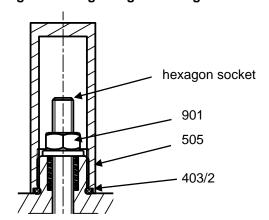


Fig.3.3 Handwheel and locking lever setting

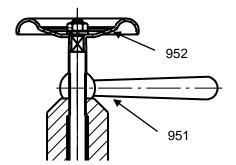
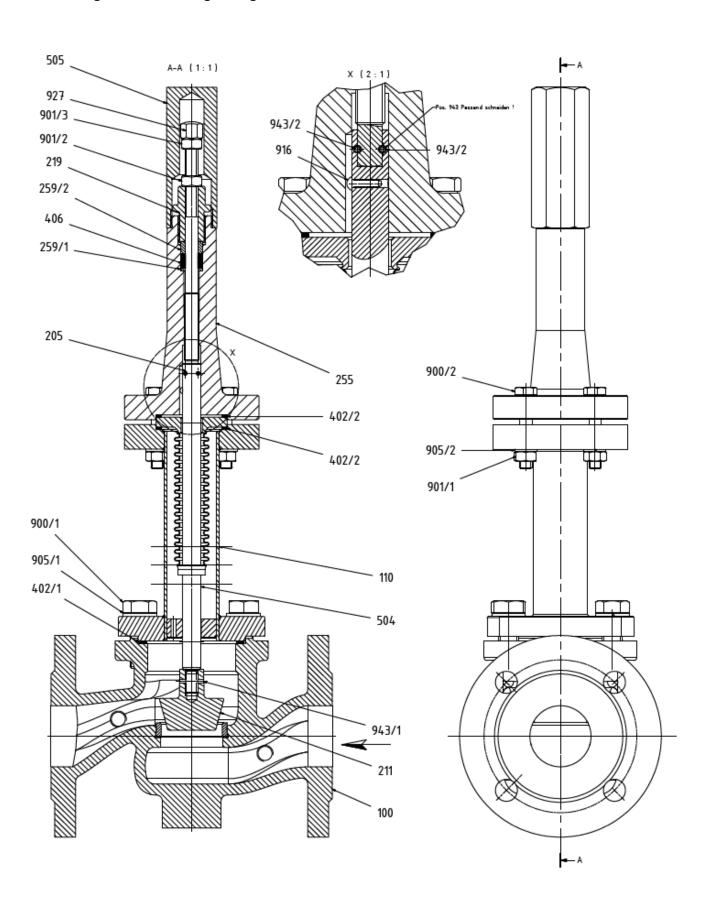




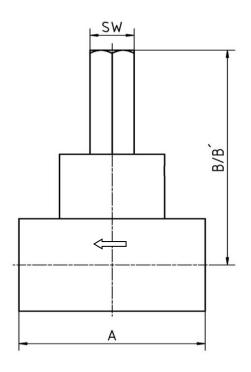
Fig.4 MEAF flange design



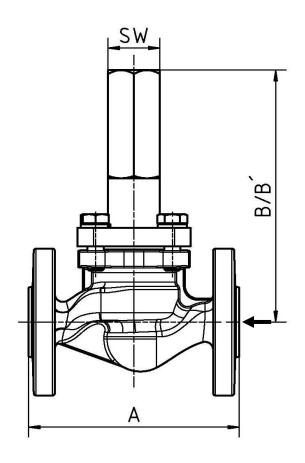


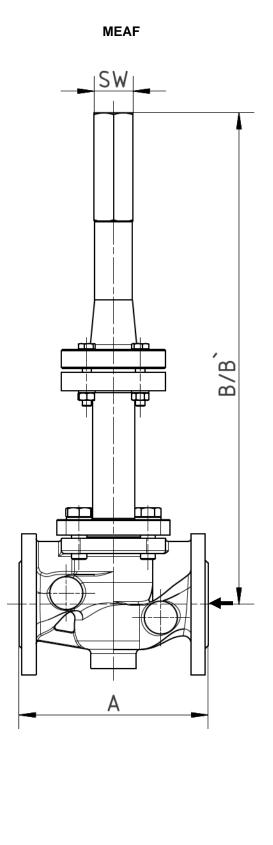
# 11.2 View drawing

**MEA- Thread** 



**MEA- Flange** 







List of parts

1001Ventilgehäusevalve chamber1081Gehäuseflanschhousing flange1101Distanzstückspacer2051Ventilspindelvalve spindle2111Mengeneinstellkegelvolume adjusting cone2121Spindelführungspindle guide2191Spindelmutterspindle nut2551Führungsteilguide piece259/11Scheibe (Fertigungsteil)disc (production piece)259/2Scheibe (Fertigungsteil)disc (production piece)4021Flachdichtunggasket402/11Flachdichtunggasket402/22Flachdichtunggasket403/11O-Ringo-ring403/21O-Ringo-ring4041Lippenringlip-ring4064Packungpacking5031Druckfederpressure spring5041Faltenbalgexpansion bellows5051Schutzkappeprotective cap9004Sechskantschraubehex. head screw900/14Sechskantschraubehex. head screw900/24Sechskantschraubehex. head screw	11.3 List of			
1081Gehäuseflanschhousing flange1101Distanzstückspacer2051Ventilspindelvalve spindle2111Mengeneinstellkegelvolume adjusting cone2121Spindelführungspindle guide2191Spindelmutterspindle nut2551Führungsteilguide piece259/11Scheibe (Fertigungsteil)disc (production piece)259/2Scheibe (Fertigungsteil)disc (production piece)4021Flachdichtunggasket402/11Flachdichtunggasket402/22Flachdichtunggasket403/11O-Ringo-ring4041Lippenringlip-ring4064Packungpacking5031Druckfederpressure spring5041Faltenbalgexpansion bellows5051Schutzkappeprotective cap9004Sechskantschraubehex. head screw900/14Sechskantschraubehex. head screw900/24Sechskantschraubehex. head screw	Pos./ Item	Stück/ Qty.	Benennung	Description
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212         1         Spindelführung         spindle guide           219         1         Spindelmutter         spindle nut           255         1         Führungsteil         guide piece           259/1         1         Scheibe (Fertigungsteil)         disc (production piece)           259/2         Scheibe (Fertigungsteil)         disc (production piece)           402         1         Flachdichtung         gasket           402/1         1         Flachdichtung         gasket           402/2         2         Flachdichtung         gasket           403/1         1         O-Ring         o-ring           403/2         1         O-Ring         o-ring           404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/2         4         Sechskantschraube         hex. head screw	205	1	Ventilspindel	valve spindle
219         1         Spindelmutter         spindle nut           255         1         Führungsteil         guide piece           259/1         1         Scheibe (Fertigungsteil)         disc (production piece)           259/2         Scheibe (Fertigungsteil)         disc (production piece)           402         1         Flachdichtung         gasket           402/1         1         Flachdichtung         gasket           402/2         2         Flachdichtung         gasket           403/1         1         O-Ring         o-ring           403/2         1         O-Ring         o-ring           404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/1         4         Sechskantschraube         hex. head screw		1	Mengeneinstellkegel	volume adjusting cone
255         1         Führungsteil         guide piece           259/1         1         Scheibe (Fertigungsteil)         disc (production piece)           259/2         Scheibe (Fertigungsteil)         disc (production piece)           402         1         Flachdichtung         gasket           402/1         1         Flachdichtung         gasket           402/2         2         Flachdichtung         gasket           403/1         1         O-Ring         o-ring           403/2         1         O-Ring         o-ring           404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/1         4         Sechskantschraube         hex. head screw		1	Spindelführung	spindle guide
259/1 1 Scheibe (Fertigungsteil) disc (production piece) 259/2 Scheibe (Fertigungsteil) disc (production piece) 402 1 Flachdichtung gasket 402/1 1 Flachdichtung gasket 402/2 2 Flachdichtung gasket 403/1 1 O-Ring o-ring 403/2 1 O-Ring o-ring 404 1 Lippenring lip-ring 406 4 Packung packing 503 1 Druckfeder pressure spring 504 1 Faltenbalg expansion bellows 505 1 Schutzkappe protective cap 900 4 Sechskantschraube hex. head screw 900/2 4 Sechskantschraube hex. head screw		1	Spindelmutter	spindle nut
259/2Scheibe (Fertigungsteil)disc (production piece)4021Flachdichtunggasket402/11Flachdichtunggasket402/22Flachdichtunggasket403/11O-Ringo-ring403/21O-Ringo-ring4041Lippenringlip-ring4064Packungpacking5031Druckfederpressure spring5041Faltenbalgexpansion bellows5051Schutzkappeprotective cap9004Sechskantschraubehex. head screw900/14Sechskantschraubehex. head screw900/24Sechskantschraubehex. head screw		1	Führungsteil	guide piece
402         1         Flachdichtung         gasket           402/1         1         Flachdichtung         gasket           402/2         2         Flachdichtung         gasket           403/1         1         O-Ring         o-ring           403/2         1         O-Ring         o-ring           404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/1         4         Sechskantschraube         hex. head screw           900/2         4         Sechskantschraube         hex. head screw		1		
402/1         1         Flachdichtung         gasket           402/2         2         Flachdichtung         gasket           403/1         1         O-Ring         o-ring           403/2         1         O-Ring         o-ring           404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/1         4         Sechskantschraube         hex. head screw           900/2         4         Sechskantschraube         hex. head screw				disc (production piece)
402/2         2         Flachdichtung         gasket           403/1         1         O-Ring         o-ring           403/2         1         O-Ring         o-ring           404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/1         4         Sechskantschraube         hex. head screw           900/2         4         Sechskantschraube         hex. head screw				gasket
403/1         1         O-Ring         o-ring           403/2         1         O-Ring         o-ring           404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/1         4         Sechskantschraube         hex. head screw           900/2         4         Sechskantschraube         hex. head screw				gasket
403/2         1         O-Ring         o-ring           404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/1         4         Sechskantschraube         hex. head screw           900/2         4         Sechskantschraube         hex. head screw		2	Flachdichtung	gasket
404         1         Lippenring         lip-ring           406         4         Packung         packing           503         1         Druckfeder         pressure spring           504         1         Faltenbalg         expansion bellows           505         1         Schutzkappe         protective cap           900         4         Sechskantschraube         hex. head screw           900/1         4         Sechskantschraube         hex. head screw           900/2         4         Sechskantschraube         hex. head screw		1		o-ring
406 4 Packung packing 503 1 Druckfeder pressure spring 504 1 Faltenbalg expansion bellows 505 1 Schutzkappe protective cap 900 4 Sechskantschraube hex. head screw 900/1 4 Sechskantschraube hex. head screw 900/2 4 Sechskantschraube hex. head screw			O-Ring	o-ring
5031Druckfederpressure spring5041Faltenbalgexpansion bellows5051Schutzkappeprotective cap9004Sechskantschraubehex. head screw900/14Sechskantschraubehex. head screw900/24Sechskantschraubehex. head screw				1 1 0
5041Faltenbalgexpansion bellows5051Schutzkappeprotective cap9004Sechskantschraubehex. head screw900/14Sechskantschraubehex. head screw900/24Sechskantschraubehex. head screw				packing
5051Schutzkappeprotective cap9004Sechskantschraubehex. head screw900/14Sechskantschraubehex. head screw900/24Sechskantschraubehex. head screw		1	Druckfeder	pressure spring
9004Sechskantschraubehex. head screw900/14Sechskantschraubehex. head screw900/24Sechskantschraubehex. head screw		1	Faltenbalg	expansion bellows
900/14Sechskantschraubehex. head screw900/24Sechskantschraubehex. head screw				
900/2 4 Sechskantschraube hex. head screw			Sechskantschraube	hex. head screw
				hex. head screw
		4		hex. head screw
	901		Sechskantmutter	hex. nut
901/1 1/4 Sechskantmutter hex. nut	901/1	1/4	Sechskantmutter	hex. nut
901/2 1 Sechskantmutter hex. nut			Sechskantmutter	hex. nut
901/3 1 Sechskantmutter hex. nut			Sechskantmutter	hex. nut
905 4 Federring lock washer			Federring	lock washer
905/1 4 Federring lock washer				lock washer
905/2 4 Federring lock washer				lock washer
906 1 Scheibe washer		1	Scheibe	washer
916 1 Halbrundkerbnägel semi-round grooved drive stud		1	<u> </u>	<u> </u>
927 1 Hutmutter cap nut				
943/1 1 Spannstift spring dowel sleeve			· · · · · · · · · · · · · · · · · · ·	
943/2 2 Spannstift spring dowel sleeve	943/2	2	Spannstift	spring dowel sleeve
951 1 Kegelgriff tapered handle		1		tapered handle
952 1 Handrad hand wheel	952	1	Handrad	hand wheel



#### **Dimension threaded version MEA** 11.4

Connection G	Dimension	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	21/2	3
Installation length	Α	60	80	80	95	105	120	150	170	180	212
10-MEA	В	95	95	95	105	153	155	173	185	245	270
	B`	145	145	145	155	223	225	243	255	315	340
	SW	19	19	19	19	32	32	32	32	32	32
25-MEA	В	95	95	95	105	153	155	173	185	-	-
	B`	145	145	145	155	223	225	243	255	-	-
	SW	19	19	19	19	32	32	32	32	-	

**Dimension flange version MEA** 

Flange DN	Dimension	15	20	25	32	40	50	65	80	100
Installation length	A <sup>1)</sup>	130	150	160	180	200	230	290	310	350
Flange ANSI	Dimension	1/2"	3/4"	1"	11/4"	11/2"	2"	21/2"	3"	4"
Installation length	$A^{2)}$	108	117	127	140	165	203	216	241	292
10-MEA	В	168	168	172	172	195	200	250	300	332
	B`	238	238	242	242	265	270	340	400	432
	SW	32	32	32	32	32	32	32	41	41
25-MEA	В	168	168	172	172	195	200	250	300	332
40-MEA	B`	238	238	242	242	265	270	340	400	432
	SW	32	32	32	32	32	32	32	41	41

Dimension flange version MFAF

Dillielision hang	je version ivii								
Flange DN	Dimension	15	20	25	32	40	50	65	80
Installation length	A <sup>1)</sup>	130	150	160	180	200	230	290	310(*)
Flange ANSI	Dimension	1/2"	3/4"	1"	11/4"	11/2"	2"	21/2"	3"
Installation length	$A^{2)}$	108	117	127	140	165	203	216	241
40-MEAF	В	523	523	523	530	523	531	547	550
	B`	638	638	638	645	638	646	662	615
	SW	41	41	41	41	41	41	41	41
63-MEAF	В	-	-	-	-	-	-	-	752
	B`	-	-	-	-	-	-	-	892
	SW	-	-	-	-	-	-	-	41

 $A^{1)}$  = Dimension at DIN (resp. flanges ANSI and dimension DIN or flanges and dimension at DIN)  $A^{2)}$  = Dimension at ANSI 150lbs (resp. flanges and dimension at ANSI)

**B** = Dimension for removing the protective cap (\*) = Dimension A<sup>1)</sup> for PN 63 = 380mm



#### 12.0 Declaration of Conformity

UNI-Geräte E. Mangelmann Elektrotechnische Fabrik GmbH Holtumsweg 13 D - 47652 Weeze



# Konformitätserklärung

Declaration of Conformity

Produkt / Product Ausrüstungsteil für Gas- und Druckgeräte /

Armature for gas and pressure equipment

Handelsbezeichnung / Trade Mark Mengeneinstellarmatur / Flow control valve

Baureihe / Series ...MEA...

DN 15a) / 20b) / 25b) / 32a);b) / 40a);b) / 50a);b) / 65a);b) / 80a);b) / 100b) / 125b) / Nennweiten / Size

150b) / 200b)

Druckstufe / Presssure Stage PN 10a);b) / 16b) / 25a);b) / 40b) / 63b)

Medium I medium Brennbare Gase der 1., 2. und 3. Gasfamilie / Flammable gases of the 1.,

2. and 3. gasfamily

EU - Richtlinien / EU - Directives EU/2016/426a) Gasgeräteverordnung / Gas Appliance Regulation

2014/68/EUb) Druckgeräterichtlinie / Pressure Equipment Directive

Konformitätsbewertungsverfahren / Conformity Assessment Procedure

Modul B + D - EU/2016/426a); Modul H - 2014/68/EUb)

Angewandte technische Spezifikation /

a)DIN EN 16678:2016-02; DIN EN 13611:2016-09; b)DIN EN 16668:2018-05; DIN EN 12266:2012-04 Applied Technical Specification

Baumusterprüfung / Type Examination

C E-0085AQ0616a) EU/2016/426 Modul B **DVGW CERT GmbH** 

Josef-Winter-Str. 1-3 D-53123 Bonn

Zertifizierungsstelle / Notified Body 0085

Überwachungsverfahren / Surveillance Procedure

SF-0085BI 7038a) EU/2016/426 Modul D **DVGW CERT GmbH** 

Josef-Winter-Str. 1-3 D-53123 Bonn

Zertifizierungsstelle / Notified Body 0085

C €-0062-PED-H-UGM 001-23-DEUb) 2014/68/EU Modul H

**Bureau Veritas Services SAS** 8 Cours du Triangle 92800 PUTEAUX - LA DEFENSE Zertifizierungsstelle / Notified Body 0062

C € - 0085a) Kennzeichnung / Marking oder/or CE - 0085a) oder/or

Das Unternehmen UNI Geräte E. Mangelmann Elektrotechnische Fabrik GmbH erklärt in alleiniger Verantwortung, dass die o.a. Baureihe die grundsätzlichen Anforderungen der aufgeführten Richtlinien und Normen erfüllt.

UNI Geräte E. Mangelmann Elektrotechnische Fabrik GmbH confirms under the sole responsibility of the manufacturer, that the basic requirements of the above specified directives and standards are fulfilled.

Weeze, 24.01.2023

Ort und Datum I place and date

Geschäftsführer I Managing Director Norbert Schneider

CE-0062b)

Release: 04/2023

DN ≤ 25 and / or PS ≤ 0,5bar see diagram 6, or Kat.1 + under the scope of EU/2016/426, are not covered by the scope of the EU-250.100.006-04 Directive 2014/68/EU

<sup>&</sup>lt;sup>a): D)</sup> Anwendung in Abhängigkeit von Nennweite und / oder Druckstufe: / Application depending on size and / or pressure stage: DN ≤ 25 und / oder PS ≤ 0,5bar siehe Diagramm 6, oder Kat.1 + erfasst von EU/2016/426, fallen nicht in den Anwendungsbereich der 2014/68/EU



UNI-Geräte E. Mangelmann Elektrotechnische Fabrik GmbH Holtumsweg 13 D - 47652 Weeze



# **UK Declaration of Conformity**

UK Konformitätserklärung

We / Wir:

UNI-Geräte E. Mangelmann Elektronische Fabrik GMBH Holtumsweg 13 D - 47652 Weeze

Declare that / Erklären hiermit:

Product / Produkt

**Functional Control** 

Stellgerät

Trade Mark / Handelsbezeichnung

Flow adjustment valve / Mengeneinstellarmatur

Series / Baureihe

Size / Nennweiten

DN 15 / 32 / 40 / 50 / 65 / 80

Pressure Stage / Druckstufe

PN 10 / 25

Fluid Group / Fluidgruppe

Gas type of the 1st, 2nd and 3rd family gases

Gasart der 1., 2. und 3. Gasfamilie

Satisfies the essential requirements of the Regulation 2016/426 on gas appliances as brought into UK law and amended and is manufactured in accordance with the UK designated standards:

Erfüllt die grundlegenden Anforderungen der Verordnung 2016/426 für Gasgeräte in der im Vereinigten Königreich geltenden und geanderten Fassung und wird in Übereinstimmung mit den im VK festgelegten Normen hergestellt:

Standards Numbers / Normen Nummern: BS EN 16678:2015, BS EN 13611:2015

BSI has performed the following conformity assessment procedures specified in the Regulation 2016/426 on gas appliances as brought into UK law and amended:

Das BSI hat die folgenden Konformitätsbewertungsverfahren durchgeführt, die in der Verordnung 2016/426 für Gasgeräte, wie sie in britisches Recht umgesetzt und geändert wurde, festgelegt sind:

Annex III Module B (Type Examination) and issued the Certificates below:

UKCA Module B certificate: (Certificate No.) UKCA 772906

Anhang III Modul B (Baumusterprüfung) geprüft und die nachstehenden Bescheinigungen ausgestellt: UKCA-Modul-B-Zertifikat: (Zertifikats-Nr.) UKCA 772906

Annex III Module D (Conformity to Type based on Quality Assurance of the Production Process) and issued the Certificates below:

UKCA Module D certificate: (Certificate No.) UKCA 772905

Anhang III Modul D (Konformität mit der Bauart auf der Grundlage der Qualitätssicherung des Produktionsprozesses) und stellte die nachstehenden Zertifikate aus: UKCA-Modul-D-Zertifikat: (Zertifikats-Nr.) UKCA 772905

Approved Body / Zugelassene Stelle:

Address / Adresse:

BSI Assurance UK Limited (Approved Body No. 0086)

Kitemark Court, Davy Avenue,

Knowlhill Milton Keynes MK5 8PP UK.

This declaration of conformity is issued under the sole responsibility of the manufacturer. Diese Konformitätserklärung wird unter der alleinigen Verantwortung des Herstellers ausgestellt.

Name / Name:

Norbert Schneider

Title / Position / Funktion:

Dipl. Ing. / Managing Director / Geschäftsführer

Place & date of issue /

Ort und Datum der Ausstellung:

D - 47652 Weeze, 22.02.2023

Signature / Unterschrift:

250.100.583-00