

Operating Instructions

Ball valve fitting according to MB4781

for VEGAWELL 52



Document ID: 41130



VEGA

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1 About this document

1.1 Function

This operating instructions manual provides all the information you need for mounting, connection and setup as well as important instructions for maintenance and fault rectification. Please read this information before putting the instrument into operation and keep this manual accessible in the immediate vicinity of the device.

1.2 Target group

This operating instructions manual is directed to trained specialist personnel. The contents of this manual should be made available to these personnel and put into practice by them.

1.3 Symbolism used



Information, tip, note

This symbol indicates helpful additional information.



Caution: If this warning is ignored, faults or malfunctions can result.

Warning: If this warning is ignored, injury to persons and/or serious damage to the instrument can result.

Danger: If this warning is ignored, serious injury to persons and/or destruction of the instrument can result.



Ex applications

This symbol indicates special instructions for Ex applications.



List

The dot set in front indicates a list with no implied sequence.



Action

This arrow indicates a single action.



Sequence

Numbers set in front indicate successive steps in a procedure.



Battery disposal

This symbol indicates special information about the disposal of batteries and accumulators.

2 For your safety

2.1 Authorised personnel

All operations described in this operating instructions manual must be carried out only by trained specialist personnel authorised by the plant operator.

During work on and with the device the required personal protective equipment must always be worn.

2.2 Appropriate use

The ball valve fitting according to MB 4781 is used for mounting the suspension pressure transmitter VEGAWELL 52 with process fitting "Thread 1".

You can find detailed information on the application range in chapter "Product description".

Operational reliability is ensured only if the instrument is properly used according to the specifications in the operating instructions manual as well as possible supplementary instructions.

For safety and warranty reasons, any invasive work on the device beyond that described in the operating instructions manual may be carried out only by personnel authorised by the manufacturer. Arbitrary conversions or modifications are explicitly forbidden.

2.3 Warning about incorrect use

Inappropriate or incorrect use of the instrument can give rise to application-specific hazards, e.g. vessel overfill or damage to system components through incorrect mounting or adjustment.

2.4 General safety instructions

This is a high-tech instrument requiring the strict observance of standard regulations and guidelines. The user must take note of the safety instructions in this operating instructions manual, the country-specific installation standards as well as all prevailing safety regulations and accident prevention rules.

The instrument must only be operated in a technically flawless and reliable condition. The operator is responsible for trouble-free operation of the instrument.

During the entire duration of use, the user is obliged to determine the compliance of the necessary occupational safety measures with the current valid rules and regulations and also take note of new regulations.

2.5 Safety label on the instrument

The safety approval markings and safety tips on the device must be observed.

2.6 Environmental instructions

Protection of the environment is one of our most important duties. That is why we have introduced an environment management system with the goal of continuously improving company environmental protection. The environment management system is certified according to DIN EN ISO 14001.

Please help us fulfill this obligation by observing the environmental instructions in this manual:

- Chapter "*Packaging, transport and storage*"
- Chapter "*Disposal*"

3 Product description

3.1 Configuration

Scope of delivery

The scope of delivery encompasses:

- Ball valve fitting according to MB 4781
- Documentation
 - this operating instructions manual

Constituent parts

The ball valve fitting according to MB 4781 consists of the following components:

- Ball valve with operating lever
- Safety catch
- Flange

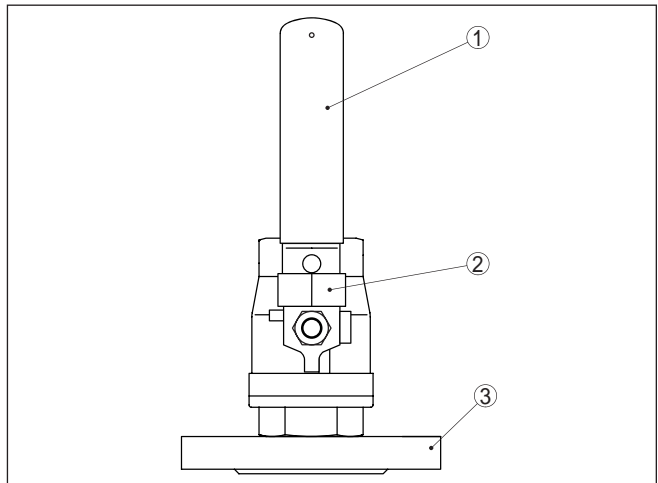


Fig. 1: Ball valve fitting MB 4781

- 1 Operating lever
- 2 Safety catch
- 3 Flange

3.2 Principle of operation

Application area

The ball valve fitting according to MB 4781 is suitable for mounting on vessels or pipelines with socket or flange.

It is suitable for pressure transmitter VEGAWELL 52 with thread G1 A and allows mounting or dismounting of the pressure transmitter without emptying the vessel or depressurizing the pipeline.

Functional principle

The ball valve fitting MB 4781 can be set to two positions by means of the lever:

- On (in operation)
- Off (service)

In position "On", the ball valve is open to the process, the pressure transmitter is in measuring position.

In position "Off", the ball valve is closed to the process, pressure transmitter can be dismantled.

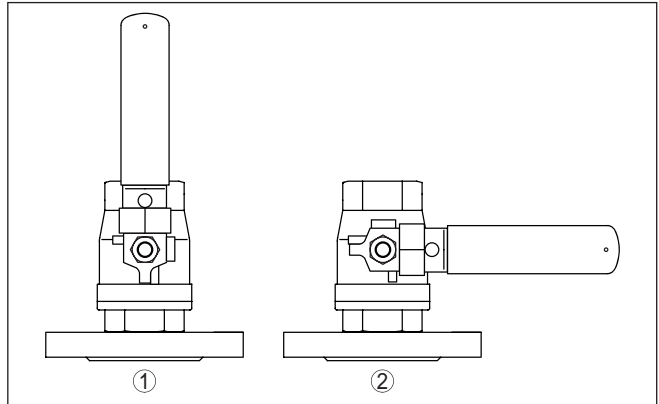


Fig. 2: Positions of the ball valve fitting MB 4781

- 1 On (in operation)
- 2 Off (service)

3.3 Packaging, transport and storage

Packaging

Your instrument was protected by packaging during transport. Its capacity to handle normal loads during transport is assured by a test according to DIN EN 24180.

The packaging of standard instruments consists of environment-friendly, recyclable cardboard. For special versions, PE foam or PE foil is also used. Dispose of the packaging material via specialised recycling companies.

Transport

Transport must be carried out under consideration of the notes on the transport packaging. Nonobservance of these instructions can cause damage to the device.

Transport inspection

The delivery must be checked for completeness and possible transit damage immediately at receipt. Ascertained transit damage or concealed defects must be appropriately dealt with.

Storage

Up to the time of installation, the packages must be left closed and stored according to the orientation and storage markings on the outside.

Unless otherwise indicated, the packages must be stored only under the following conditions:

- Not in the open
- Dry and dust free
- Not exposed to corrosive media
- Protected against solar radiation

Storage and transport temperature

- Avoiding mechanical shock and vibration
- Storage and transport temperature see chapter "*Supplement - Technical data - Ambient conditions*"
- Relative humidity 20 ... 85 %

4 Mounting

4.1 Safety instructions

Always keep in mind the following safety instructions:

- Mount the ball valve fitting horizontally with lever on top. In this position, the safety catch is effective against unintentional opening.
- Dismount the ball valve fitting only in unpressurized status or with emptied vessel
- Unscrew the pressure transmitter only in position "OFF"

4.2 General instructions

Suitability for the process conditions

Make sure that all parts of the instrument exposed to the process, in particular the process fitting, fitting parts and seal, are suitable for the existing process conditions. These include above all the process pressure, process temperature as well as the chemical properties of the medium.

You can find the specifications in chapter "Technical data" and on the nameplate.

4.3 Handling

By closing the ball valve, the safety catch (direction of arrow) is unlocked and the swivelling lever is moved 90° to the right.

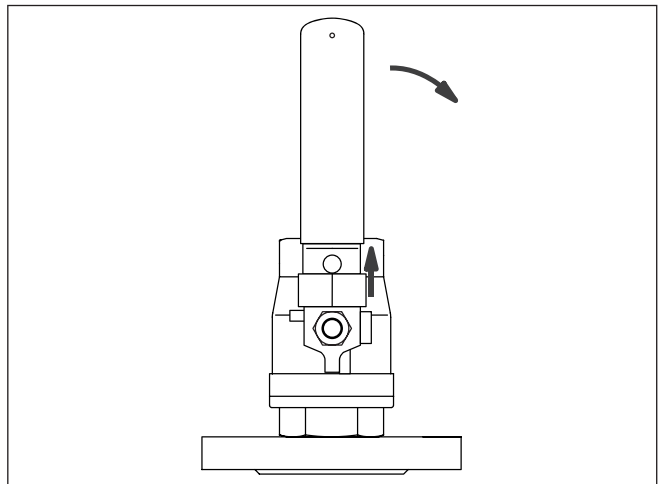


Fig. 3: Handling of the ball valve fitting

4.4 Mount pressure transmitter

**Danger:**

Never bring the ball valve into position "On" without the pressure transmitter mounted. Medium can escape and cause damage to property or injury to persons.

In Ex applications, Ex atmosphere can escape when opening the ball valve fitting without the pressure transmitter being installed.

Proceed as follows:

1. Loosen safety catch
2. Turn lever to position "Off", safety catch locks
3. Screw the pressure transmitter in until it stops, max. torque 50 Nm
4. Loosen safety catch
5. Turn swivelling lever to position "On"

The installation of the pressure transmitter is finished.

4.5 Dismount pressure transmitter

**Danger:**

The pressure transmitter must never be dismantled with the fitting in position "On". Medium can escape under operating pressure and cause damage to property or injury to persons.

Proceed as follows:

1. Loosen safety catch
2. Bring lever to position "Off", safety catch locks
3. Unscrew the pressure transmitter

Dismounting of the pressure transmitter is finished.



In Ex applications it must be ensured that the ball valve fitting meets at least pressure rating IP 67 in closed condition and with dismantled pressure transmitter.

The reinstallation is carried out as described in chapter "*Mounting the pressure transmitter*".

5 Maintenance and fault rectification

5.1 Maintenance

If the instrument is used properly, no special maintenance is required in normal operation.

5.2 Rectify faults

The operator of the system is responsible for taking suitable measures to rectify faults.

Reaction when malfunctions occur

24 hour service hotline

Should these measures not be successful, please call in urgent cases the VEGA service hotline under the phone no. **+49 1805 858550**.

The hotline is available to you 7 days a week round-the-clock. Since we offer this service world-wide, the support is only available in the English language. The service is free of charge, only the standard telephone costs will be charged.

Reaction after fault rectification

Depending on the reason for the fault and the measures taken, the steps described in chapter "Set up" may have to be carried out again.

5.3 Instrument repair

If a repair is necessary, please proceed as follows:

You can download a return form (23 KB) from our Internet homepage www.vega.com under: "*Downloads - Forms and certificates - Repair form*".

By doing this you help us carry out the repair quickly and without having to call back for needed information.

- Print and fill out one form per instrument
- Clean the instrument and pack it damage-proof
- Attach the completed form and, if need be, also a safety data sheet outside on the packaging
- Please ask the agency serving you for the address of your return shipment. You can find the respective contact data on our website www.vega.com under: "*Company - VEGA worldwide*"

6 Dismounting

6.1 Dismounting steps

**Caution:**

Before dismounting the ball valve fitting according to MB 4781, empty the vessel or depressurize the pipeline.

Note chapter "*Mounting*" and carry out the described steps in reverse order.

6.2 Disposal

MB 4781 consists of materials which can be recycled by specialised recycling companies. Mark the instrument as scrap and dispose it according to the national, legal regulations.

Materials: see chapter "*Technical data*"

If you have no way to dispose of the old instrument properly, please contact us concerning return and disposal.

7 Supplement

7.1 Technical data

General data

Material ball valve	316L
Material flange	316L
Material seal	PTFE/15 % glass fibre
Pressure stage ball valve	PN 64
Pressure stage flange	
– according to DIN	PN 16, PN 40
– according to JIS	PN 5, PN 10

Note nominal pressure of the pressure transmitter. The lowest permissible operating pressure is applicable.

Product temperature	-40 ... +80 °C (-40 ... +176 °F)
Weight approx.	4.5 kg (9.921 lbs)

7.2 Dimensions

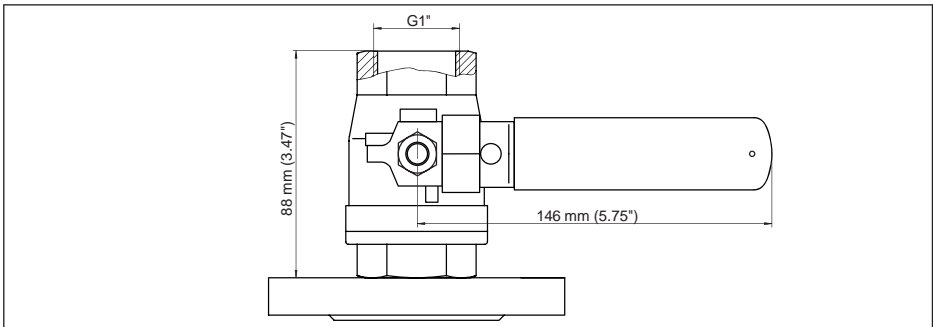
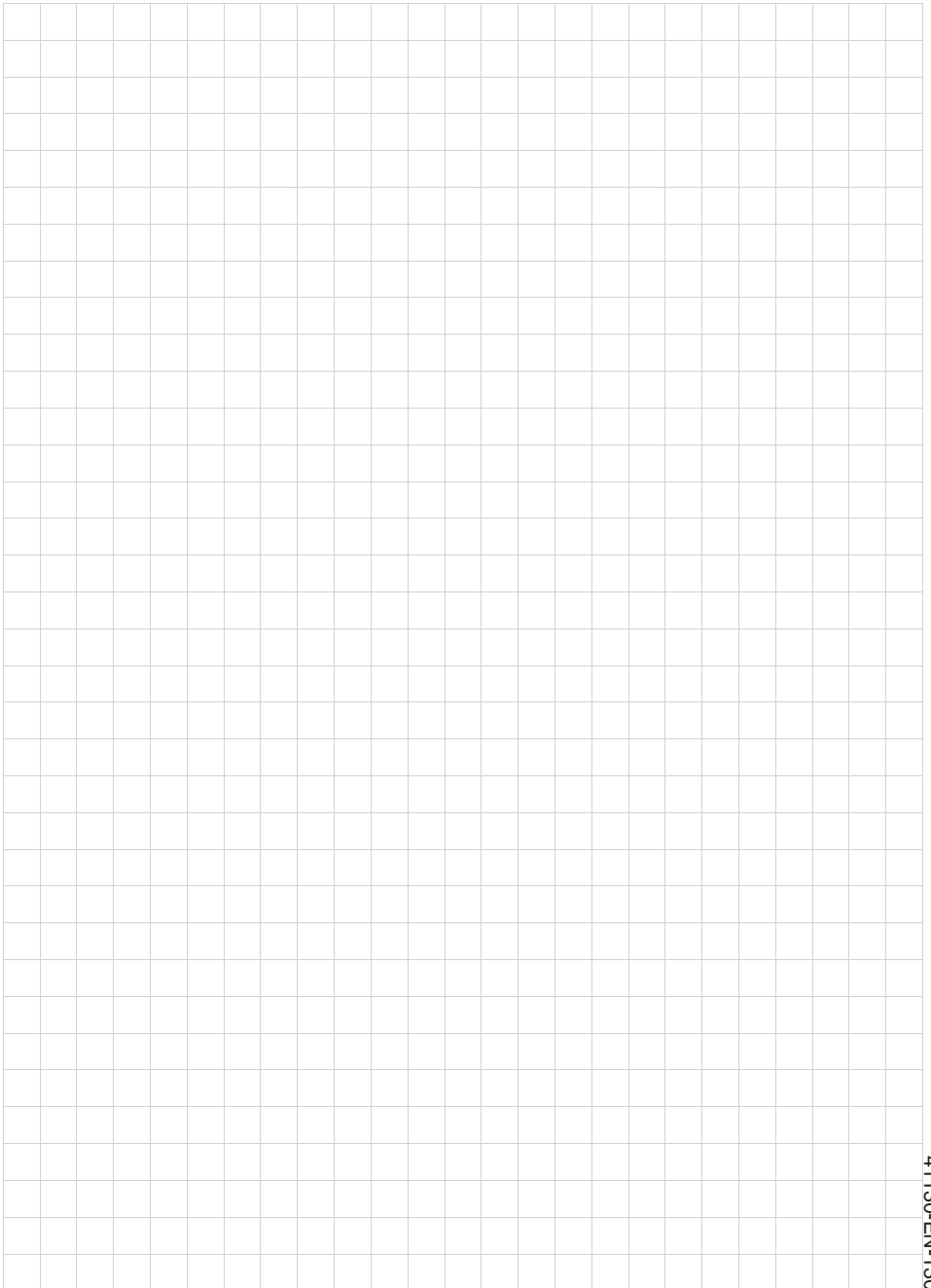
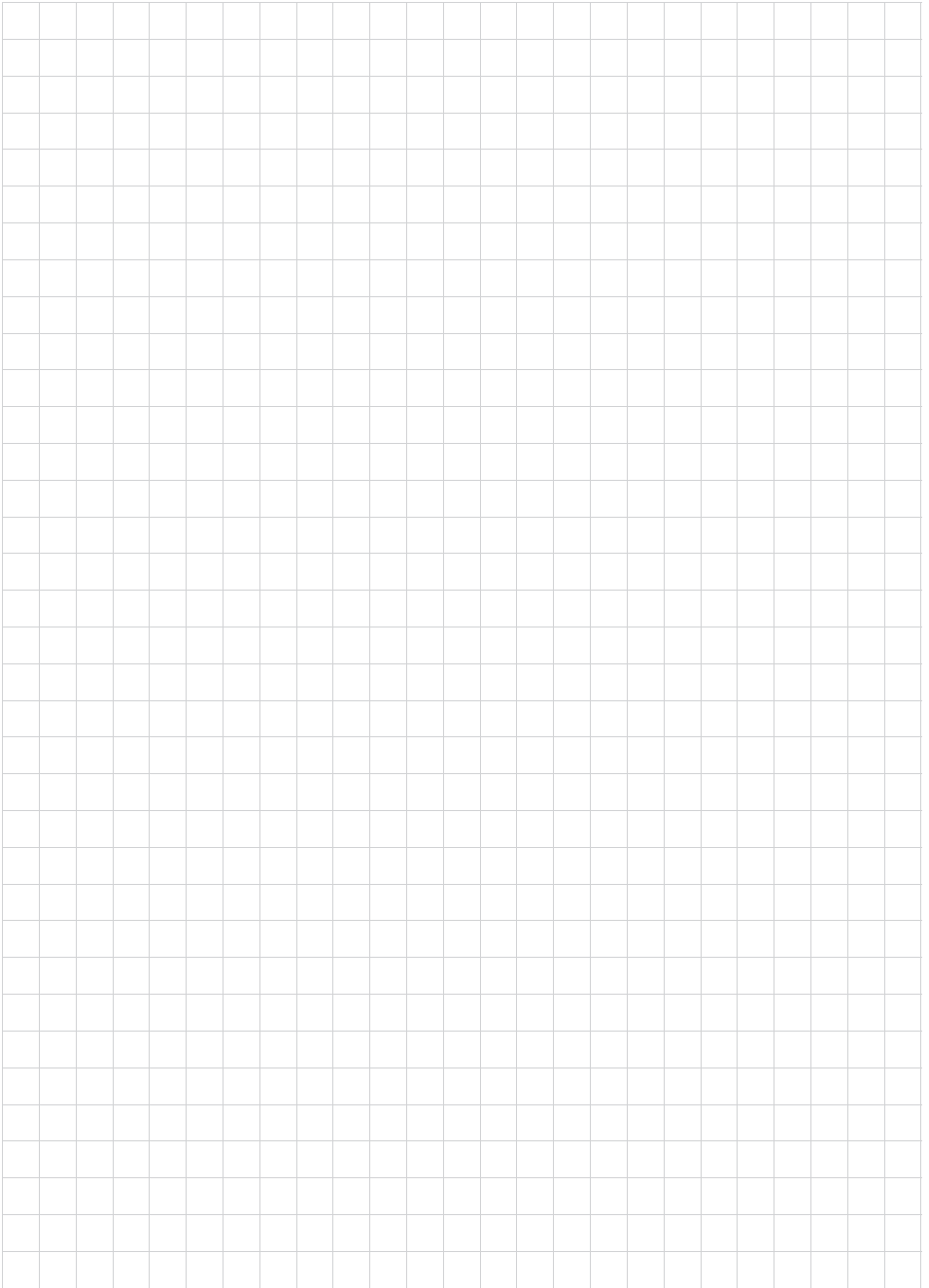


Fig. 4: Ball valve fitting according to MB 4781





Printing date:

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All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.

Subject to change without prior notice

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