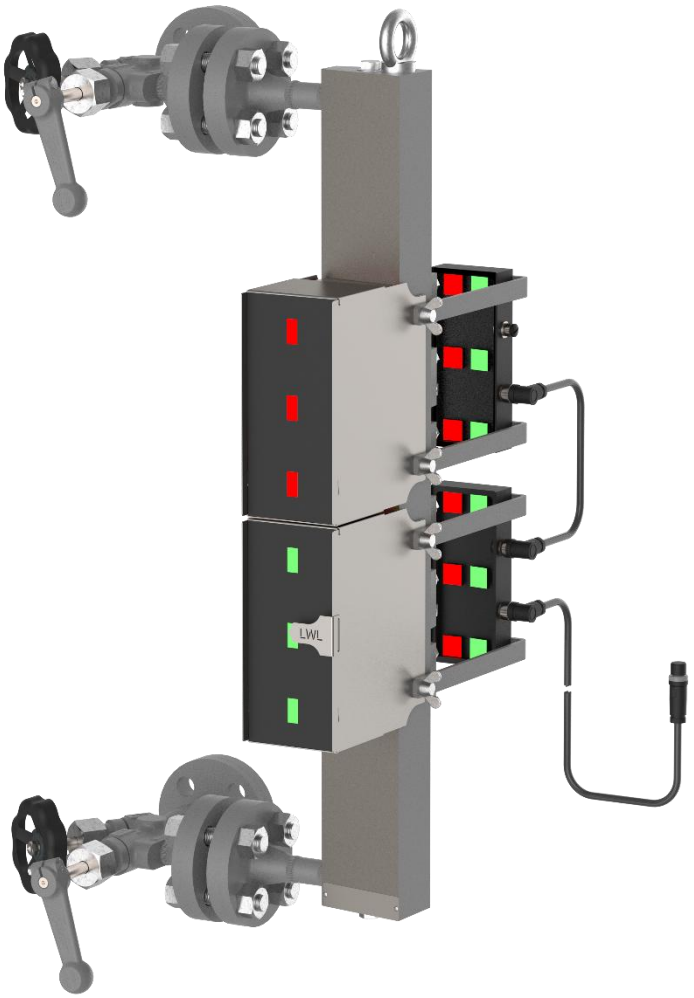
Bicolour level gauge

Type Green-Red - BU200



Version 02/2026

D-04-B-56602-EN-01

Installation and operating instructions

(English translation)

Table of Contents

1 About this document

1.1 Introduction

The Installation and operating instructions are part of the Bicolour level gauge Type Green-Red - BU200. It must be made available to the responsible departments "Incoming goods, transport, assembly, commissioning and maintenance". The Installation and operating instructions must be stored in such a way that the specialist personnel has access to them at all times. If the gauge is passed on to a third party, these Installation and operating instructions must also be included in the national language of the third party.

NOTE

Safe and trouble-free operation of the Igema GmbH Bicolour level gauge is not possible without precise knowledge of the individual components.

- Installation and operating instructions Note installation and operating instructions.
- Familiarise yourself with all relevant documents.

The Installation and operating instructions contains important information for the proper use and safe operation of the Bicolour level gauge. Please also note important information on the repair, maintenance, care, safety and value retention of your measurement and control system.

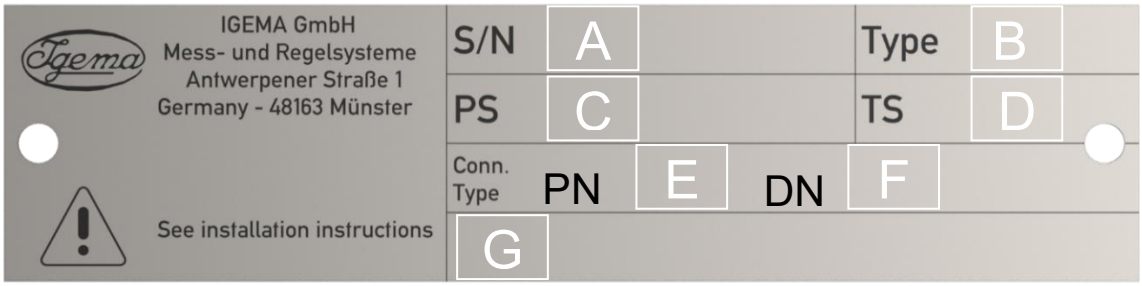
If the Installation and operating instructions or the accompanying documents are partially not available or have become unusable, a replacement operating instructions for the gauge can be obtained by specifying the document number on the cover page. It is also possible to download the operating instructions after scanning the QR code shown on the back.

1.2 Product identification and rating plate

On the basis of the rating plate, the Installation and operating instructions can be assigned to the corresponding Bicolour level gauge. The Installation and operating instructions belongs to the Bicolour level gauge of the device type **Type Green-Red - BU200**.

Additions that are entered after the designation and describe the design of the Bicolour level gauge *(e.g. 5/3ü)* do not release these Installation and operating instructions from belonging to the Bicolour level gauge.

According to DIN EN19 the following are marked on the rating plate:



A	Year of manufacture and order number	E	Pressure level
B	Type designation	F	Nominal width
C	maximum permissible pressure	G	TAG No. (optional)
D	maximum permissible temperature		

1.3 Related documents

In addition to these Installation and operating instructions, the operating instructions of the shut-off and drain valves as well as the lighting system must be observed.

Product	Document number/ Link	QR-Code
Shutoff valve	62826 www.igema.com/document/62826	
Drain valves	62825 www.igema.com/document/62825	
Lighting system LED Secure SOL 200	50226 www.igema.com/document/50226	
Lighting system LED LED Secure Ex SOL 200	51196 www.igema.com/document/51196	

1.4 Marking of safety precautions

In the following installation and operating instructions, safety instructions are marked with the following symbols:

 **SIGNAL WORD**	
Nature and source of danger Consequences of non-compliance Instructions for action to avoid the danger	**SYMBOL(S)**

	This symbol with the signal word DANGER and a background warning colour indicates a danger that will result in death or serious injury if not avoided.
	This symbol with the signal word WARNING and a background warning colour indicates a danger that can lead to death or serious injury if not avoided.
	This symbol with the signal word CAUTION and a background warning colour indicates a danger that can lead to injuries if not avoided.
	This symbol with the signal word NOTICE and a background colour indicates a danger that can lead to property damage if not avoided.
	This symbol with the signal word ENVIRONMENT and a background colour indicates a danger that can lead to environmental pollution if not avoided.
	This symbol with the signal word TIP and a background colour indicates a user tip that provides additional and useful tips.

1.5 Copyright

2 Safety Instructions

2.1 Requirements for personnel

NOTE

Property damage caused by incorrect installation, commissioning, maintenance and operation

Only qualified persons who are familiar with the systems are allowed to carry out work

Only trained electricians may commission electrical components and carry out maintenance work on them.

Igema GmbH can be commissioned for work.

CAUTION

Risk of injury due to external influences

External influences can lead to injuries in the absence of protective equipment

- Put on personal protective equipment according to category Ⅱ

2.2 Safety at work

DANGER

Explosion hazard due to ignition sources

Working in potentially explosive atmospheres during assembly, commissioning, maintenance and disassembly can lead to explosions.

- Ventilate the environment
- Switch off the system
- Allow explosive gases to escape.
- Carry out a gas value measurement before starting work.

WARNING

Risk of injury due to corrosive liquids

Corrosive liquids can cause serious injuries in case of skin contact

- Check the danger of the medium.
- Wear protective clothing including safety glasses.

Risk of injury due to leaking medium

Inflammatory, irritating and harmful substances can escape from the gauge and lead to skin injuries and burns. This danger is also to be expected in the case of an unpressurised cooled system.

- Wear protective clothing including safety glasses.
- Check the danger posed by the medium and, if necessary, wear respiratory protection or support.
- Observe the order of work.
- Perform work only when the gauge is depressurised and emptied.
- In principle, do not consider any system to be depressurised.

Risk of injury due to high temperatures

Surfaces of the gauges and areas near the gauges heat up to the maximum permissible temperature and can cause severe burns if touched.

- Check the danger of the medium.
- Wear protective clothing including safety glasses.
- Before carrying out maintenance and dismantling work, wait until the system is adjusted to the atmospheric conditions.

Danger of suffocation due to dangerous gases

Escaping gases can lead to suffocation.

- Check the danger of the medium.
- Wear protective clothing including safety glasses and respiratory protection.
- Before carrying out maintenance and dismantling work, wait until the system is adjusted to the atmospheric conditions.

CAUTION

Risk of injury due to unsecured working area

An unsecured working area can endanger working and bystanders.

- Ensure safe access.
- Delimit and mark the secured working area.
- Sufficiently illuminate the working area.

Risk of injury due to heavy loads

There is a risk of injury when handling large and/or heavy gauges.

- Observe the load handling regulation.
- Use lifting equipment to move heavy and bulky appliances.

Risk of health damage due to noise

Noise leads to damage to the health of the hearing.

- Wear hearing protection.
- Avoid or limit noise if possible.

2.3 Intended use of the gauge

NOTE

Property damage caused by irregular use

- Use gauges exclusively as a gauge of filling levels on containers.
- Maintain maximum pressure and temperature ranges of all components.
- Ensure the suitability of the gauge for the planned use/application.
- Ensure the compatibility of the gauge and the medium.
- Observe the correct orientation and flow direction of the gauge.

2.4 Damage to the product

NOTE

Property damage caused by incorrect storage and transport

Incorrect transport and storage can cause damage to the gauge.

- Avoid bumps and hard setdown.
- Store the gauge protected from environmental influences and in a dry place.
- Secure the gauge against damage.

3 Contents of the packaging

3.1 Included

1. Type Green-Red - BU200. The Bicolour level gauge will be delivered as 2 pre-assembled units, unless otherwise contractually agreed:

Unit A

- Gauge
- Upper shutoff valve
- Lower shutoff valve
- Drain valve

Unit B

- Lighting device(s)

2. Installation and operating instructions

3.2 Optional versions

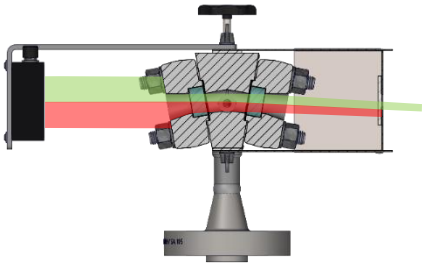
These Installation and operating instructions apply to the Bicolour level gauge in standard as well as in customer-specific design. The applicable documents must be additionally observed especially if the Bicolour level gauge is equipped with customer-specific shutoff or drain valves.

4 System Description

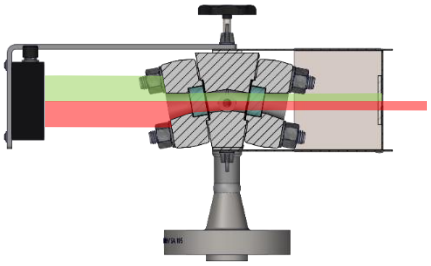
4.1 Function

The LED illumination on the back of the display unit emits red and green light. If there is water in the display area, then the light rays in the display body will be diverted in such a way that the green light beam falls on to the slit dazzling body. In the steam area the light rays are not diverted and the red light beam is projected.

In the display area the water space always appears green and the steam space red.

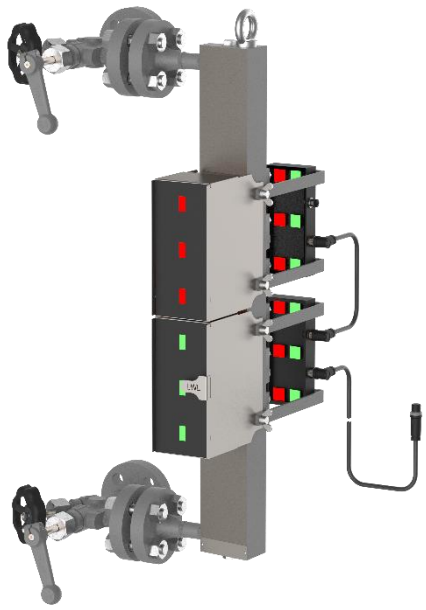
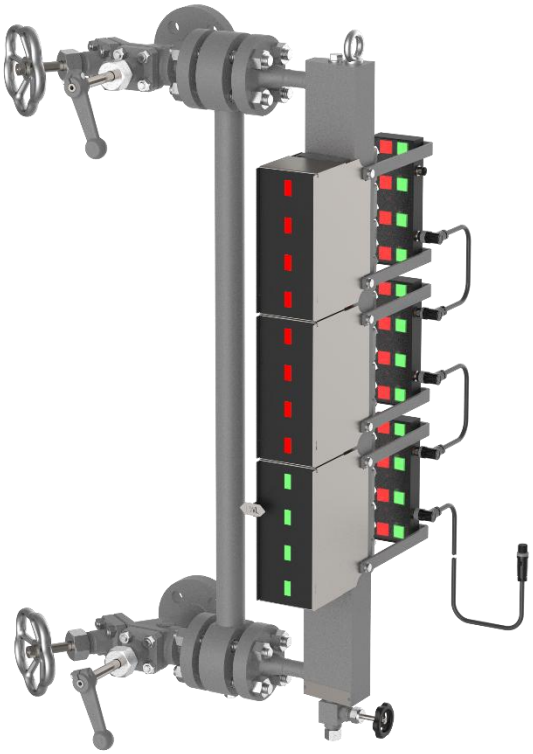
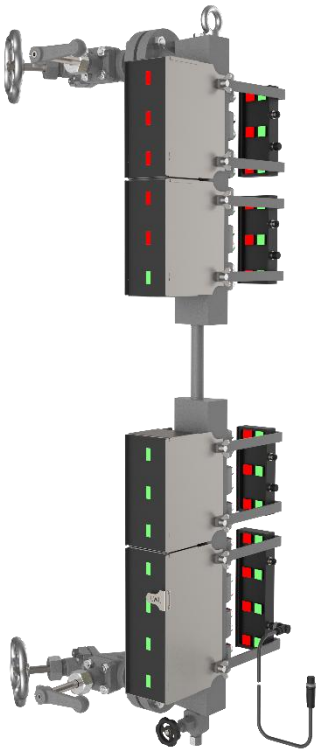


Water

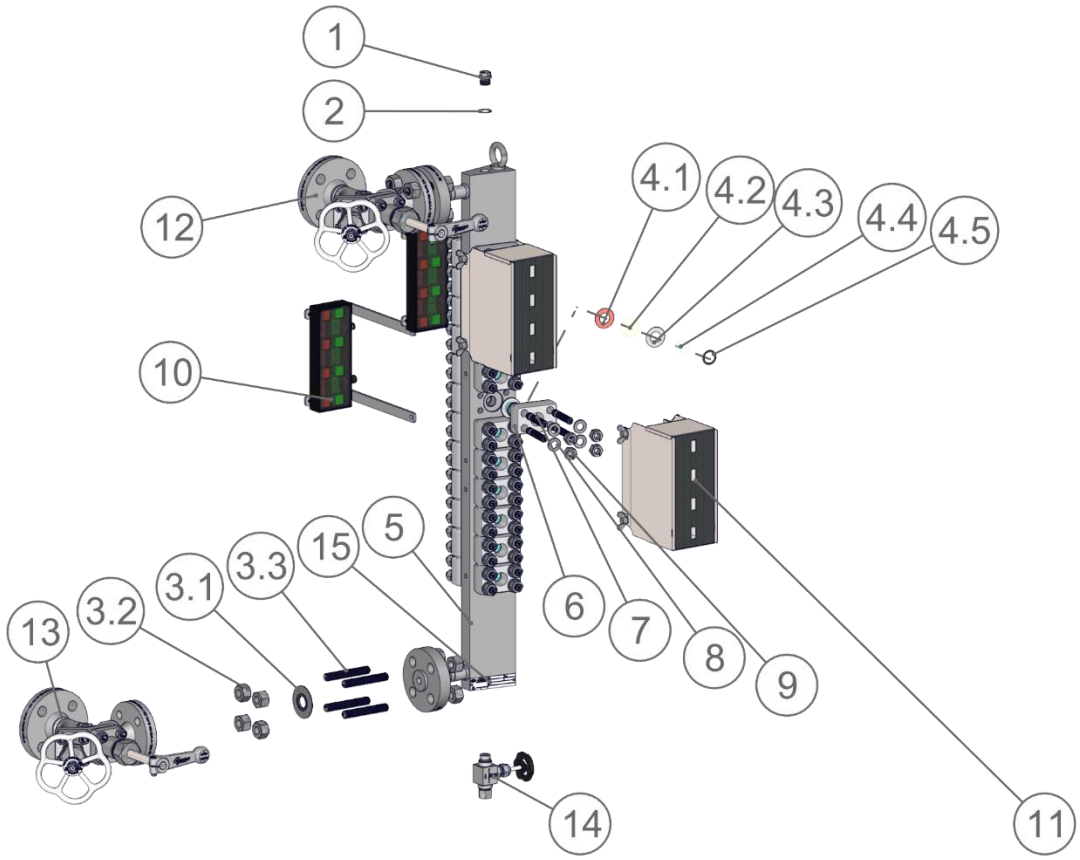


Steam

4.2 Different variants

Standard version	With stabilising section
	
With expansion arch	**Split version**
	

5 Construction



Example: Standard version

1	Screw plug G 1/2"	6	Cover
2	Soft iron seal	7	Cover screw
3.1	Seal	8	Washer
3.2	Hexagon nut	9	Hexagon nut
3.3	Threaded bolt	10	Lighting module
4.1	Sealing ring	11	Dazzling box
4.2	Mica packet	12	Upper shutoff valve
4.3	Mica protection	13	Lower shutoff valve
4.4	Glass	14	Drain valve
4.5	Glass insert	15	Rating plate
5	Display body		

6 Technical data

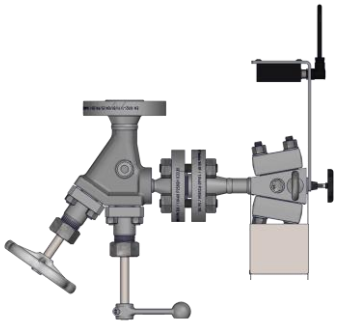
6.1 Limitations of use

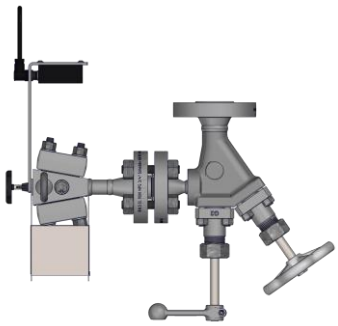
BU200 application limits	Permissible pressure [PS]	Permissible temperature [TS]
	200 bar 2900 psig	367 °C 693 °F

The maximum permissible operating pressure of the gauge is determined by the lowest permissible pressure of the attached component.

6.2 Possible display orientations

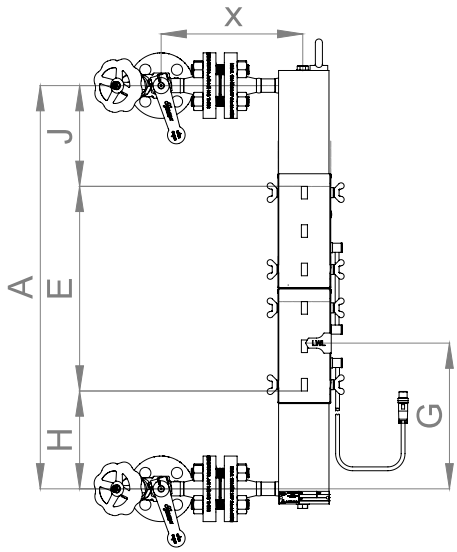
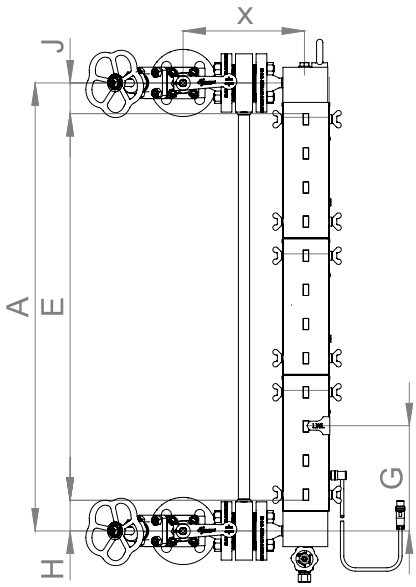
Left

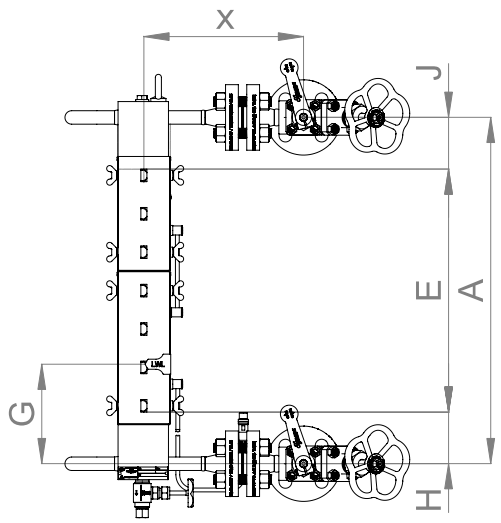
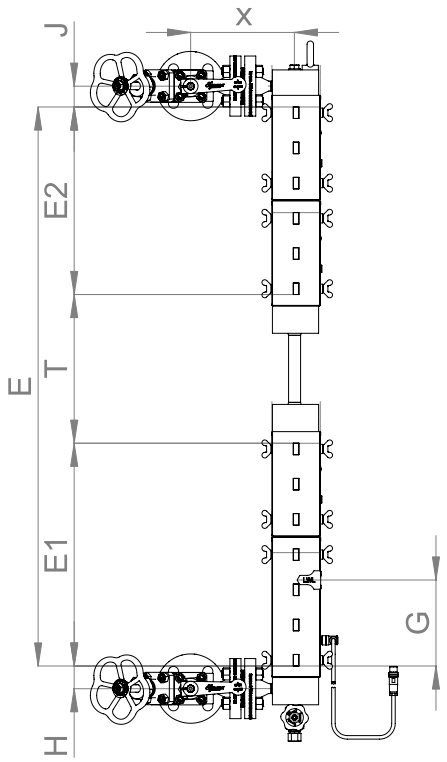




Right

6.3 Dimensions

Standard version	With stabilising section
	
Shown as a left-hand model.	*Shown as a left-hand model* *For versions with a stabilising section, dimension X is extended.*

With expansion arch	Split version
	
For versions with expansion bend, dimension J may be 135 mm long, depending on the alignment.	*Shown as a left-hand model.* *The position of the dead space T can be freely selected.*

Sight length calculation: E = (n-1) x 76.2 + 21

With a connection dimension A>2000mm, a porthole is omitted and a dead space T of 100 mm is created, the position of which can be freely selected.

H and J are variably available on request with a minimum of 25mm.

NOTE

Property damage due to weight loading

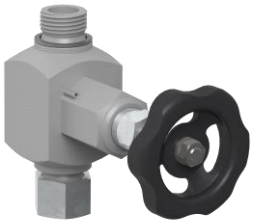
If the total weight of the gauge > 30kg the connecting elements are subjected to excessive loads.

- Provide sufficient support. (e.g. by spring hanger)

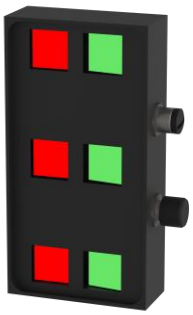
6.4 Basic version

The bicolour level gauges are equipped with an A240 shut-off valve and an AV320 drain valve. LEDSecure SOL 6-200 or LEDSecure SOL 8-200 are installed as light sources. Customised equipment is possible.

Shut-off valve A240



Drain valve AV320

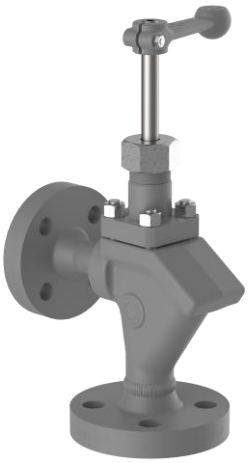


Example: LED Secure SOL 6-200

Type	Data sheet	Item no.
Shut-off valve A240 Process connection Welding end B16.25 NPS 1" Class 3000 Lateral connection Flange B16.5 NPS $^{3}/_{4}$" Class 1500	D-09-D-50502-EN	15-14045
Drain valve AV250 Cutting ring screw DS12	D-09-D-50437-EN	15-16613
LED Secure SOL 8-200 LED Secure SOL 6-200	D-A1-D-64311-EN	40-11125 40-11126

6.5 Optional versions

For versions with other shut-off and drain valves, the documents for the installed valves must also be observed.

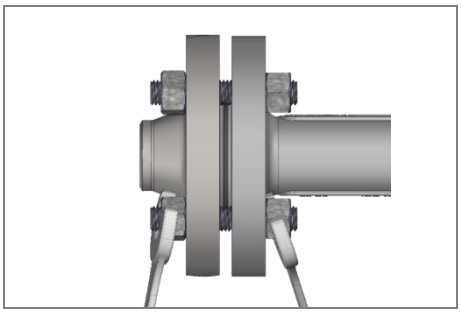
Examples of optional versions	
Customised drain valves	Customised shut-off valves
 *Example: AV520*	 *Example: A190*

Type	Data sheet	Item number
Shut-off valve AV520 Cutting ring fitting DS12	D-09-D-50513-DE	40-01845
Shut-off valve A190	D-09-D-50581-DE	see data sheet

7 Assembly

7.1 Version with flange

- Observe the orientation of the gauge.
- Check sealing surfaces for cleanliness
- Install the flange connection between the gauge and the boiler/pressure vessel according to the applicable standard



7.2 Version with welding end

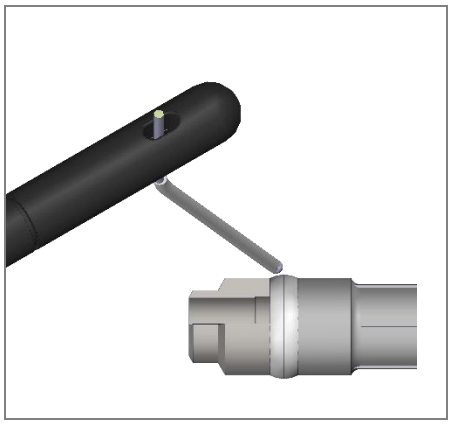
WARNING

Eye damage due to lack of personal protective equipment

Lack of eye protection during welding leads to eye damage in working and bystanders.

- Secure the working area.
- Wear a welding protective mask.

- Observe the orientation of the gauge.
- Remove protection caps. (locking for transport)
- Assembly only by using welding process
  111 (metal-arc welding with covered electrode)
  or
  141 (inert-gas tungsten-arc welding).
- Check on an application-specific basis whether a subsequent heat treatment of the weld seams is required.



7.3 Lighting device on the gauge

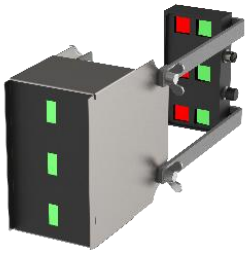
NOTE

Property damage caused by incorrect installation, commissioning, maintenance and operation

Only trained electricians may commission electrical components and carry out maintenance work on them.

Igema GmbH can be commissioned for work on electronic components.

Included



LED Secure SOL 6-200

LED Secure SOL 8-200

Before installation, check that the scope of delivery shown is complete.

If the delivered lighting equipment shows signs of transport damage, is not complete or gives rise to other complaints, please contact our SERVICE department immediately on +49 2501 92424-0.

The quantities depend on the configuration of the gauge. Shown here are the quantities for a lighting system.

Dazzling box for LED Secure SOL 6 **or** 8 -200

1pc.

Retaining bracket

2pcs.

M5x12 screw

4pcs.

LED Secure SOL 6 **or** 8 -200

1pc.

Wing screw

M8x16

2pcs.

Wing screw

M8x12

2pcs.

Washer

for M8

4pcs.

Assembly instructions

TIP

Only install the lighting device after the device has been heated up once and then cooled down again.

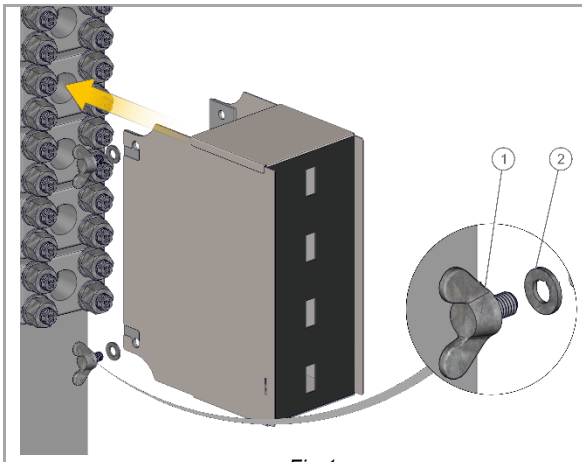


Fig.1

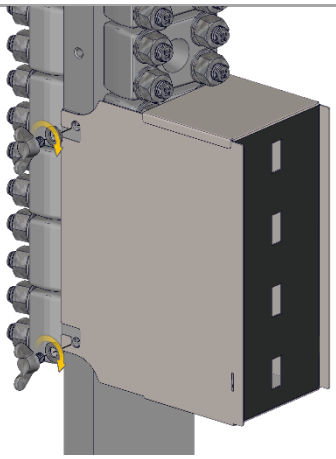


Fig.2

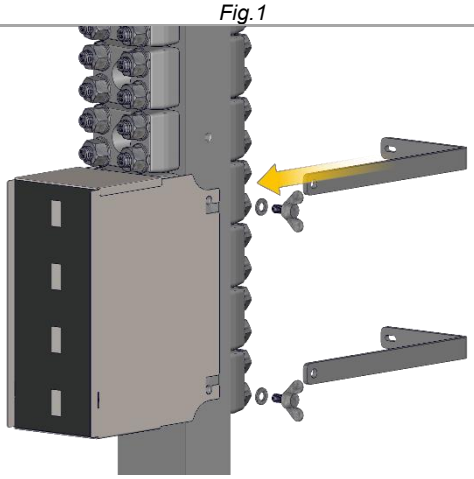


Fig.3

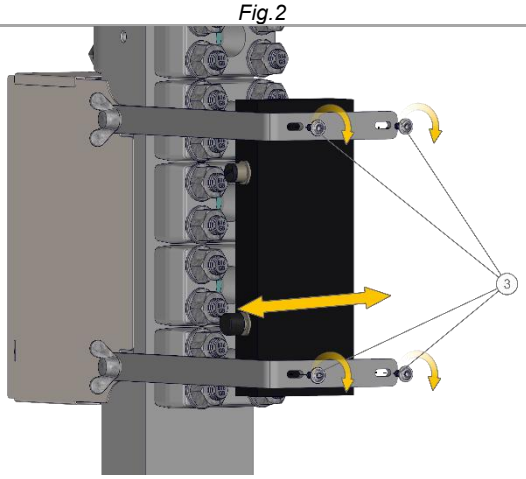


Fig.4

Figure 1:

- The first wing screws must be fitted on the opposite side of the mounting bracket.
  - Attach dazzling box to the display body
  - Observe the concentric position of the holes in the dazzling box and display body.

Figure 2:

  - Screw the M8x12 wing screws with washers into the threaded holes of the display body.

Figure 3:

The following assembly step takes place on the opposite side.

  - Screw the M8x16 wing screws with washers through the holes in the retaining bracket and dazzling box into the threaded holes in the display body.

Figure 4:

- Ensure that the lighting module is installed with the connections on the wide side of the display body.
  - Screw the lighting module (pos. 10) to the retaining brackets using M5 x 12 screws.
  - Adjust the position of the light by moving the lighting module in the slotted holes.

By adjusting the position of the light, the light beam is optimally directed onto the display on the dazzling box.

NOTE

Property damage due to heat build-up

Electronic devices can be damaged if they are exposed to heat build-up.

  - Do not insulate lighting equipment and electrical components.

Power connection

For the electrical connection, the applicable document for the respective lighting device must be observed.

8 Commissioning

8.1 Before commissioning

Torque

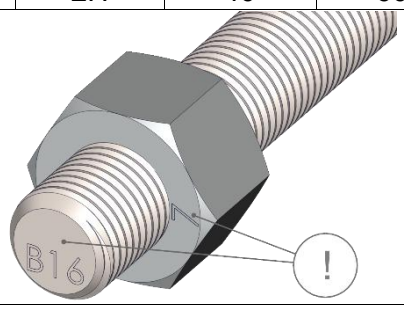
All liquid level gauges are subjected to a pressure test before delivery. In individual cases, material placement may occur due to transport, storage or during assembly.

NOTE

Leaks due to insufficient torques

- Check screw connections for appropriate torque and a tight fit.
- 24 hours after commissioning, check all screw connections again for the correct torque and possibly retighten.
- Check for leaks in the first few days after commissioning

Material		Tightening torque Md → **Md max** [Nm]					
Bolt	Nut	in steps					
		1	2	3	4	5	6
GB	GA	35	55	75	90	**105**	-
B16	7	35	55	75	95	115	**130**
GC	GC	40	60	80	100	120	**135**
B7	2H	40	60	80	100	120	**135**



The material designation (*[1]=GB, B16, GC, B7 / *[2]=GA, 7, GC, 2H) is located on the front side of the bolts or nuts.

Condition of the boiler water

NOTE

Property damage caused by contaminated medium

Impurities in the medium can cause leaks during commissioning and possible subsequent flushing.

- Ensuring the cleanliness of the medium in the best possible way

TIP

The pH value of the medium has a strong effect on the removal of the mica.

8.2 Commissioning at the same time as the boiler

TIP

This type of commissioning is recommended by Igema GmbH due to the lower stress on the components.

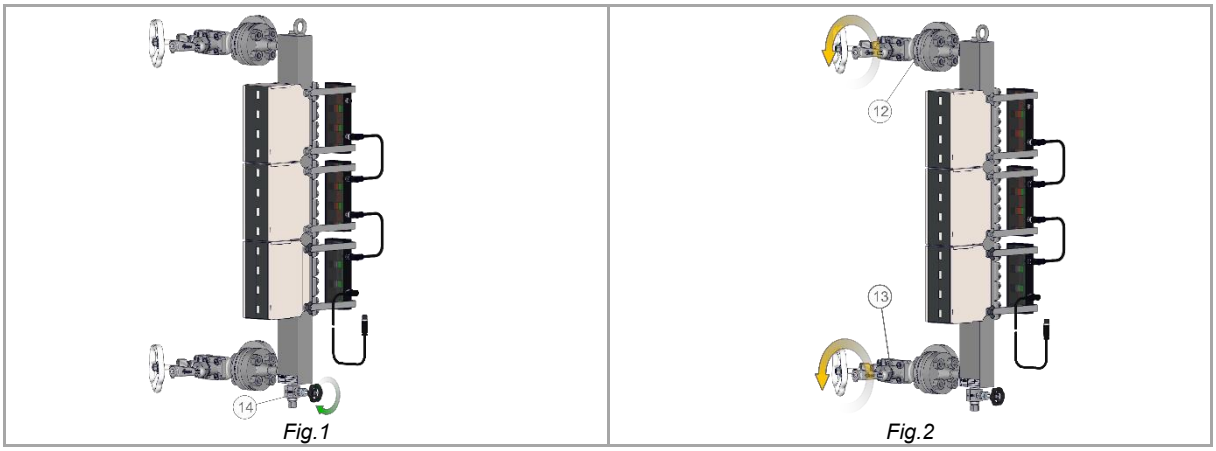


Fig.1 *Fig.2*

Figure 1:

- Close the drain valve *(pos.14)*.

Figure 2:

- Open the shut-off valves *(pos. 12, 13)* as far as they will go.

The commissioning of the pressure vessel / boiler with the gauge can now be carried out.

8.3 Commissioning under pressure and temperature loads

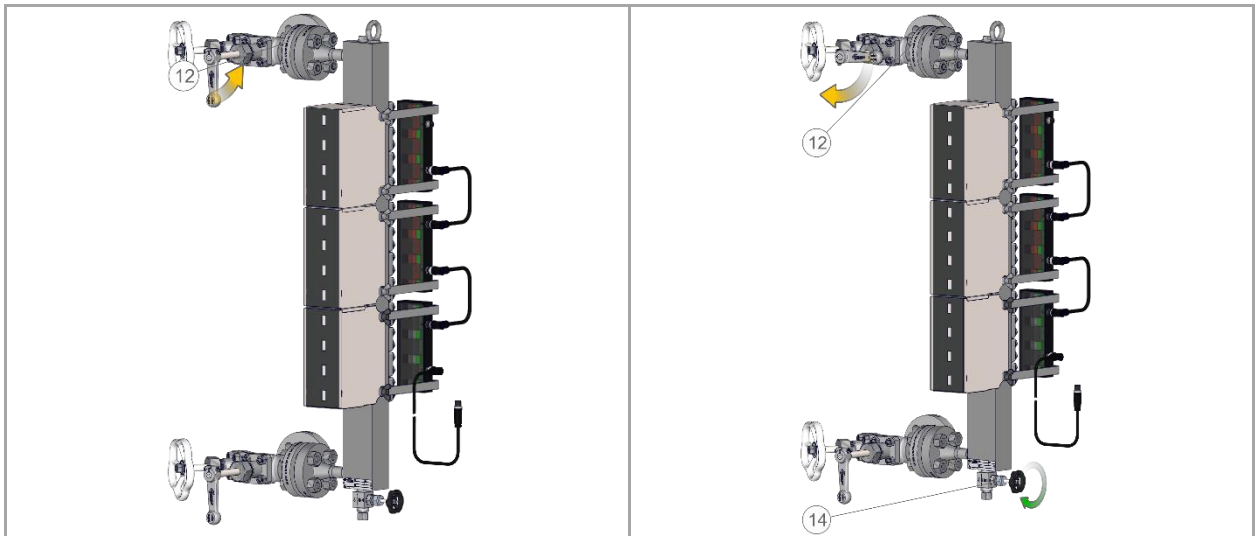


Fig.1

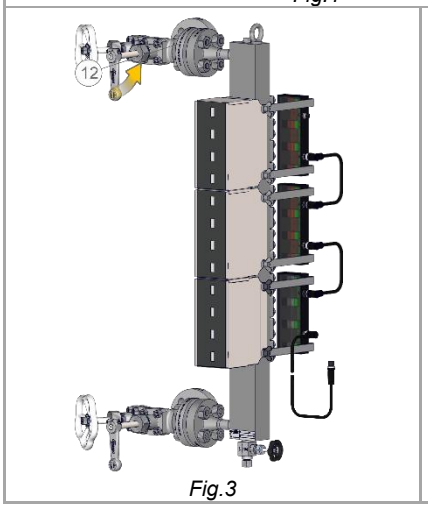


Fig.3

Fig.2

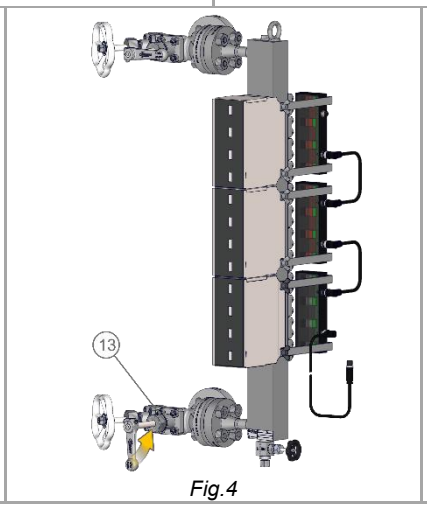


Fig.4

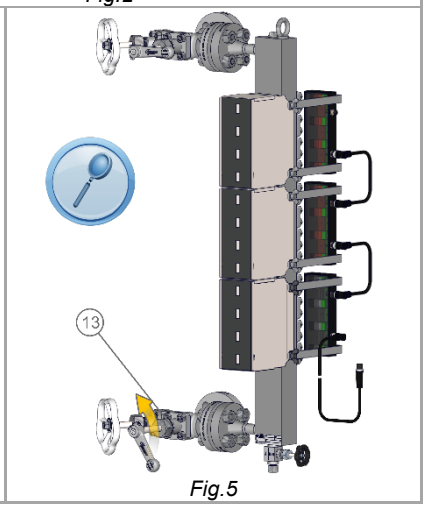


Fig.5

Figure 1:

- The gauge must be depressurised *(chap.9.2)*
  - Slowly open the upper shutoff valve *(pos. 12)*.

The gauge is heated to operating temperature by the steam flowing through it within 5-10min.

Figure 2:

- The operating temperature must be reached
  - Close the upper shutoff valve *(pos. 12)*.
  - Close drain valve *(pos, 14)*.

Figure 3:

- Slowly open the upper shutoff valve *(pos. 12)*.

Figure 4:

- Open the lower shutoff valve *(pos. 13)* slightly *(lever in approx. 5 min. position)*.

The pressure equalisation now takes place.

Figure 5:

- The pressure equalisation must be fully completed
  - Fully open the lower shut-off valve *(pos. 13)*.

The filling level is adjusted.

- Check the gauges for leaks.

TIP

If the level of the medium does not become visible, this may be related to the safety function of the self-closing ball in the valve.

- Close the lower shutoff valve *(pos. 13)*.
- Repeat commissioning under pressure and temperature loading from *Fig.4*.

9 Servicing

NOTE

Property damage caused by incorrect spare parts

Replaced spare parts that do not correspond to the characteristics of the original spare parts may cause damage to the gauge.

- Only use original parts from Igema GmbH for replacement.

CAUTION

Cuts caused by sharp objects

During the maintenance of the device, sharp-edged parts may cause injuries.

- Always expect sharp-edged parts and shards due to glass breakage.
- Wear work gloves.

9.1 Preventive maintenance

Proper cleaning and maintenance of level gauges is essential for optimal level indication and service life.

NOTE

Leaks due to defective seal

Seals that appear to be in perfect condition may have hardened.

- Always replace gaskets during maintenance work.

Unrecognisable fill level due to contaminated glasses

It is necessary to make sure that the visible fill level coincides with the actual one.

- Keeping glasses clean

Creation of a maintenance plan

The operator must determine a maintenance plan suitable for the specific application after evaluating his own operating experience. It should be noted that shorter maintenance intervals extend the service life of the level gauge.

TIP

To ensure a trouble-free process, Igema GmbH recommends replacing the glasses, mica and seals annually. Certain operating conditions shorten the recommended intervals.

Mica shields are a natural product and slight streaking and inclusions may occur.

These have no influence on the function and safety of the gauge.

9.2 Cleaning the gauge / depressurising

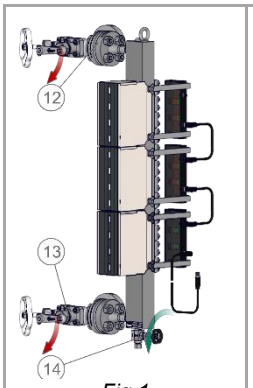


Fig.1

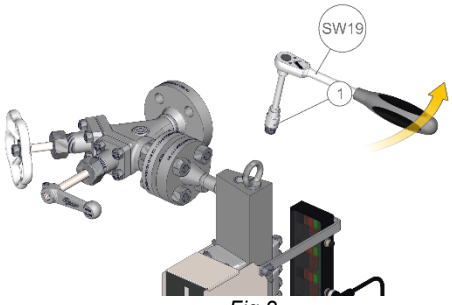


Fig.2

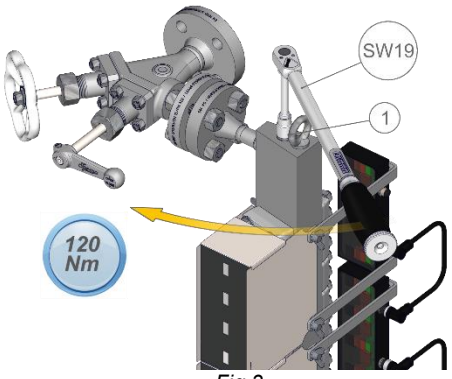


Fig.3

Figure 1:

- Close shut-off valves *(pos, 12, 13)*.
- Close the drain valve *(pos.14)*.

The gauge is partially emptying.

Figure 2:

- Unscrew the screw plug *(pos.1)*.

The gauge is emptying completely.

The cleaning has now been completed.

Figure 3:

- Screw in the screw plug *(pos. 1)* with the specified torque **M_d = 120Nm**.

The gauge can be put back into operation. (chap.8)

9.3 Blowing through the gauge for further cleaning

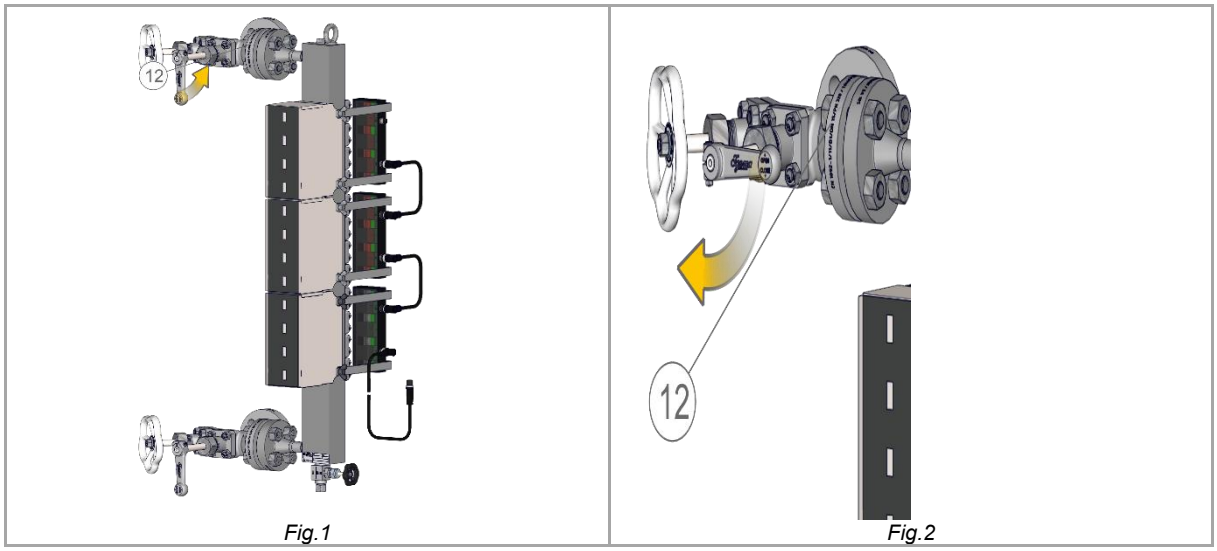


Fig.1 *Fig.2*

Figure 1:

- The gauge must be depressurised *(chap.9.2)*
  - Slowly open the upper shutoff valve *(pos. 12)*.

The steam flowing through cleans the glasses.

Figure 2:

- Close the upper shutoff valve *(pos. 12)*.
- Close drain valve *(pos, 14)*.

The gauge can be put back into operation. (chap.8)

9.4 Cleaning the mica shields

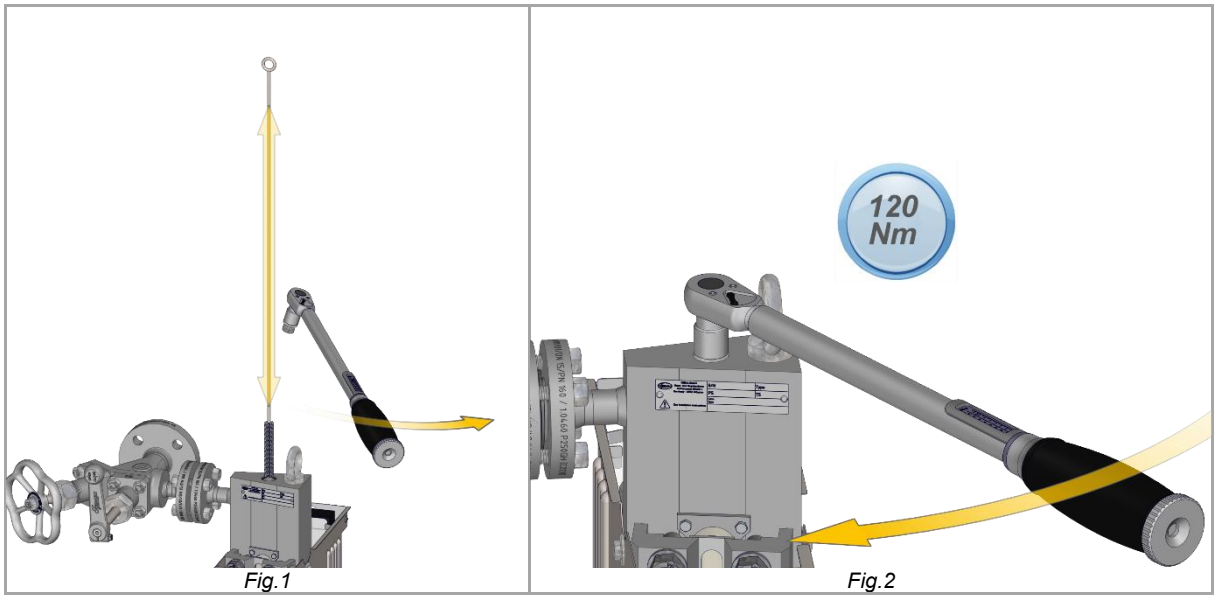


Fig.1 *Fig.2*

Figure 1

- The gauge must be depressurised *(chap.9.2)*
  - Unscrew the screw plug *(pos. 1)*.
  - Clean glasses and channel in the display body with a round brush *(Article number 40-00775)*.

Figure 2

- Screw in the screw plug *(pos.1)* with torque **Md=120Nm**.

TIP

If this cleaning is not sufficient, a new glass *(pos. 5)* must be installed. *(For spare parts packages and item numbers, see chap.11.1)*

9.5 Changing the glass and mica

NOTE

Property damage caused by damaged components

Apparently intact components can be damaged and lead to damage to the device when reinstalled or reused.

- After loosening the clamping tabs, install completely new seals.
- Create optimal operating conditions for the durability of the glasses and seals.

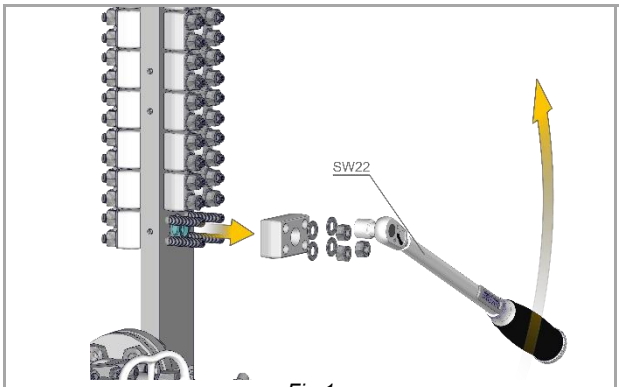


Fig.1

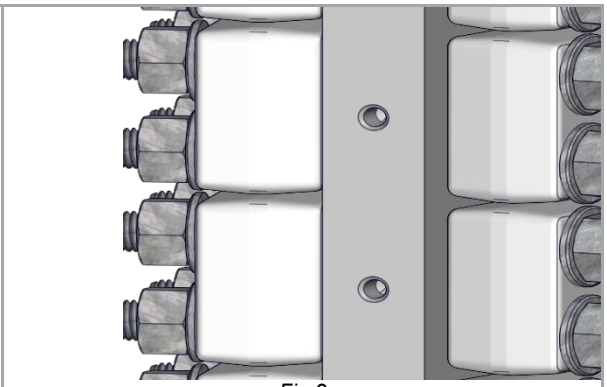


Fig.2

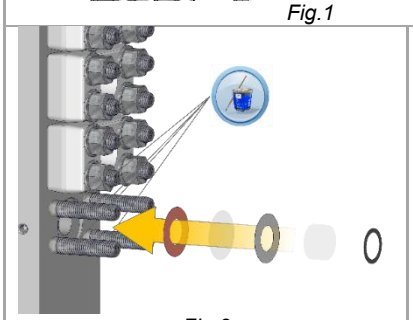


Fig.3

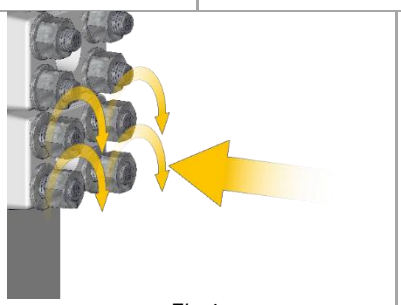


Fig.4

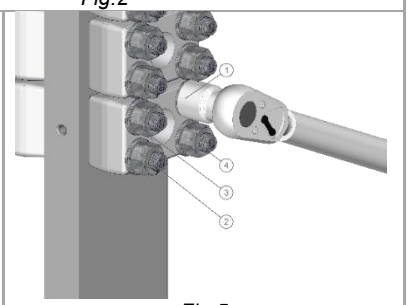


Fig.5

The lighting system must be dismantled for the following work. *(chap. 12.1)*. The work must be carried out on both sides of the gauge.

Figure 1:

- The gauge must be depressurised
  - Loosen the hexagon nuts *(pos. 9)*
  - Remove the cover *(pos. 6)*

Figure 2:

- Remove the glass insert *(pos. 4.5)*, glass *(pos. 4.4)*, mica protection *(pos. 4.3)*, mica pack *(pos. 4.2)* and sealing ring *(pos. 4.1)*.
- Remove sealing residues and clean sealing surfaces.

Figure 3:

- Grease hexagon head screws with suitable lubricant (e.g. *Fuchs Lubritech PBC 1574*).
- Install the sealing ring *(pos. 4.1)*, mica pack *(pos. 4.2)*, mica protection *(pos. 4.3)*, glass *(pos. 4.4)* and glass insert *(pos. 4.5)* in the specified order.

NOTE

Leakages due to incorrect installation

The incorrect alignment of certain components leads to leaks in the gauge.

- Install the mica with the side marked "W " facing the medium. If there is no marking, always install the thickest mica disc facing the medium.
- Fit the glasses so that the marking is legible from outside.
- Install the seal with the rounded side facing the glass.

Figure 4:

- Slide the cover *(pos. 6)* and washers *(pos. 8)* onto the cover screws *(pos. 7)*
- Unscrew the hexagon nuts *(pos. 9)*.

Figure 5:

- Tighten the hexagon nuts *(pos. 9)* alternately and gradually crosswise to the tightening torque **M** $_{dmax}$. *(chap. 8.1)*

- Fitting the lighting equipment *(chap. 7.3)*

The gauge can be put back into operation. (chap.8)

10 Case of damage

Fault	Cause	Remediation
Leakage between the seal and the display body	Wear and tear	Tighten cover screws *(chap.10.1)*
Leakage at flange connection	Wear, stresses	Tighten the flange connection / replace the seal *(chap.10.2)*
Leakage at screw plug	Wear and tear	Tighten the screw, replace the seal *(chap. 10.3)*
Water level not visible	Deposits on mica	Clean gauge *(chap.9.2)*.
Water level not visible after cleaning	Heavy deposits on the mica	Change the mica *(chap.9.5)*.

10.1 Leakage between the cover and the display body

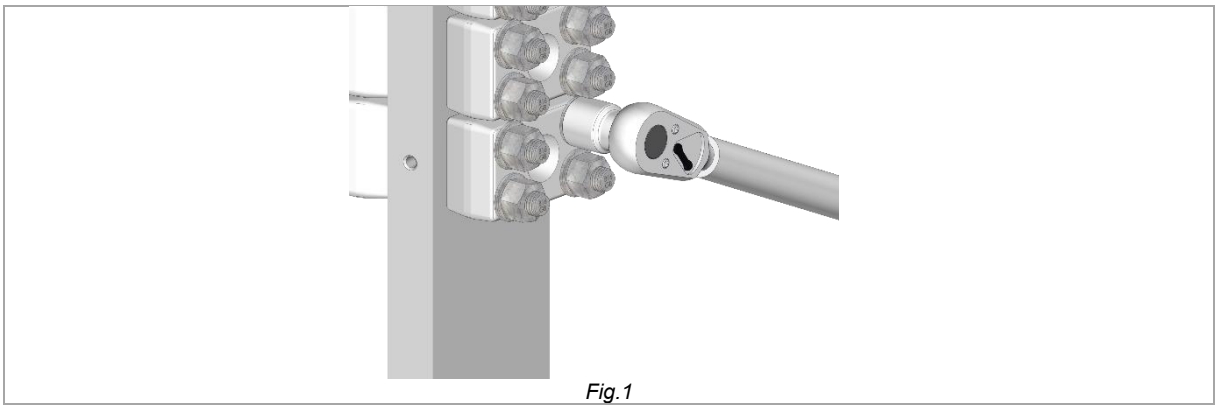


Fig.1

- The gauge must be depressurised *(chap.9.2)*
  - Dismantling the lighting equipment *(chap.12.1)*

Figure 1:

- Tighten the hexagon nuts *(pos. 9)* alternately and gradually crosswise to the tightening torque **M** $_{dmax}$. *(chap. 8.1)*

- Installing the lighting system *(chap. 7.3)*

The gauge can be put back into operation. (chap.8)

TIP

If the leakage does not stop after the work, the seal and possibly the glass must be replaced. *(chap.9.5)*

10.2 Leakage at flange connection

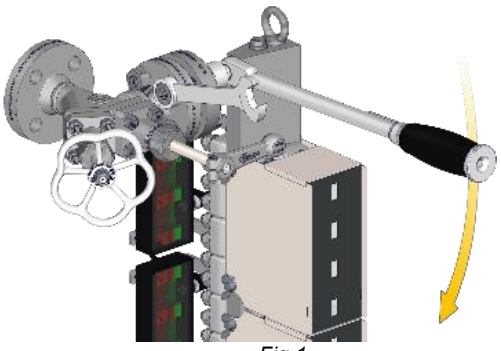


Fig.1

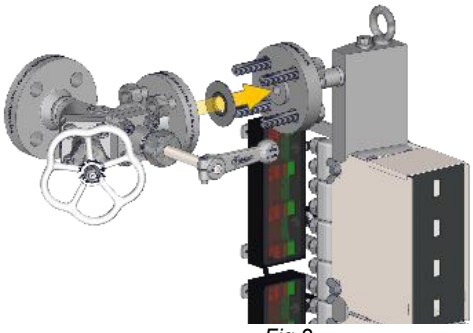


Fig.2

Figure 1

- Install the flange connection between the gauge and the boiler/pressure vessel according to the applicable standard and torque.

If there is no improvement:

- Dismantling the display body *(chap.12.2)*

Figure 2:

- Clean the sealing surfaces and check for damage.
- Replace SMD package for connecting the flanges

Reconnect the indicator body to the valves. ***(chap. 7.1)***

10.3 Leakage between the screw plug and the display body

These working instructions apply to both the G$^1/_2$" screw plug and the G$^1/_4$" screw plug, which are screwed into the connection piece on offset versions of the gauges.

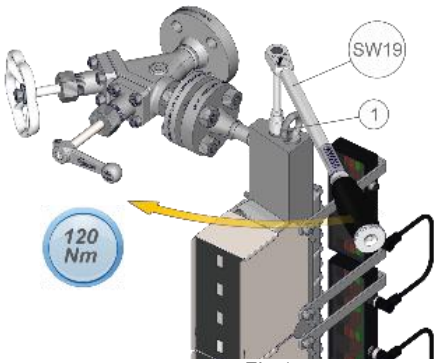


Fig.1

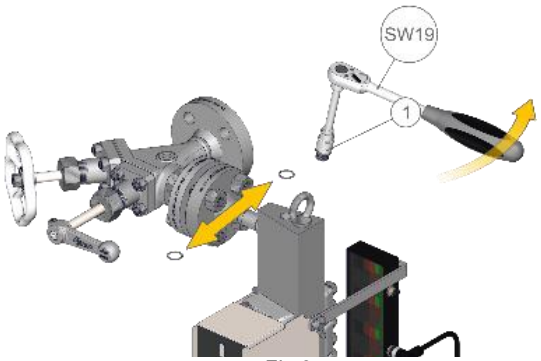


Fig.2

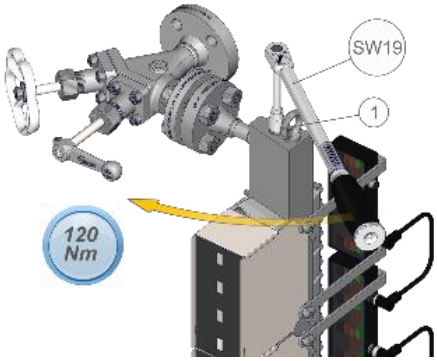


Fig.3

Figure 1:

- Tighten the torque of the screw plug *(pos. 1)*

Figure 2:

If there is no improvement:

- Unscrew the screw plug *(Pos.1)*.
- Replace seal *(Pos.2)*.
- Check the sealing surface for contamination and damage.

Figure 3:

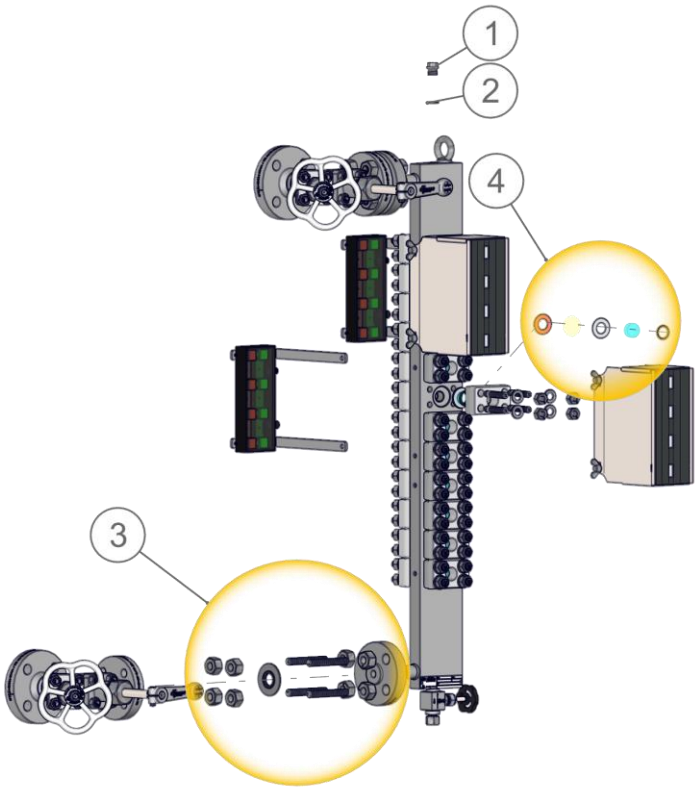
- Screw in the screw plug *(pos. 1)* with the specified torque.

Tightening torque **Md_{max} [Nm]**	
G 1/2“	G 1/4"
120	65

11 Spare parts and technical accessories

11.1 Spare parts

pos.	Designation	Pressure level	Item no.	Quantity
1	Screw plug G $^1/_2$"	to 200 bar	40-10481	1
2	Sealing ring		40-00099	1
n.d.	Screw plug	G $^1/_4$"	40-03794	2
n.d.	Sealing ring	Ø13.5 x Ø19 x 1.5mm	40-00114	2
3	Spare parts package SMD (flange connection)	PN 40	15-13410	2
		PN 160	15-18923	
		PN 250	15-18924	
		PN 320	15-18924	
		Class 300	15-18925	
		Class 600	15-13758	
		Class 1500	15-16130	
		Class 2500	15-17439	
4	Spare parts package BU	to 200 bar	15-10970	n x 1



11.2 Accessories

Designation	Label	Item no.
Water level mark	HHWL	25-12827
	HWL	25-12826
	NWL	25-12825
	LWL	25-12824
	LLWL	25-12823

For each water level mark, two screws are required for fastening.

Water level mark LWL

NOTE

Property damage caused by incorrect spare parts

Replaced spare parts that do not correspond to the characteristics of the original spare parts may cause damage to the gauge.

- Only use original parts from Igema GmbH for replacement.

12 Decommissioning and disposal

12.1 Dismantling the lighting system

Dismantling the lighting system is carried out in reverse order to installation. *(Chap. 7.3)*

12.2 Dismantling the display body

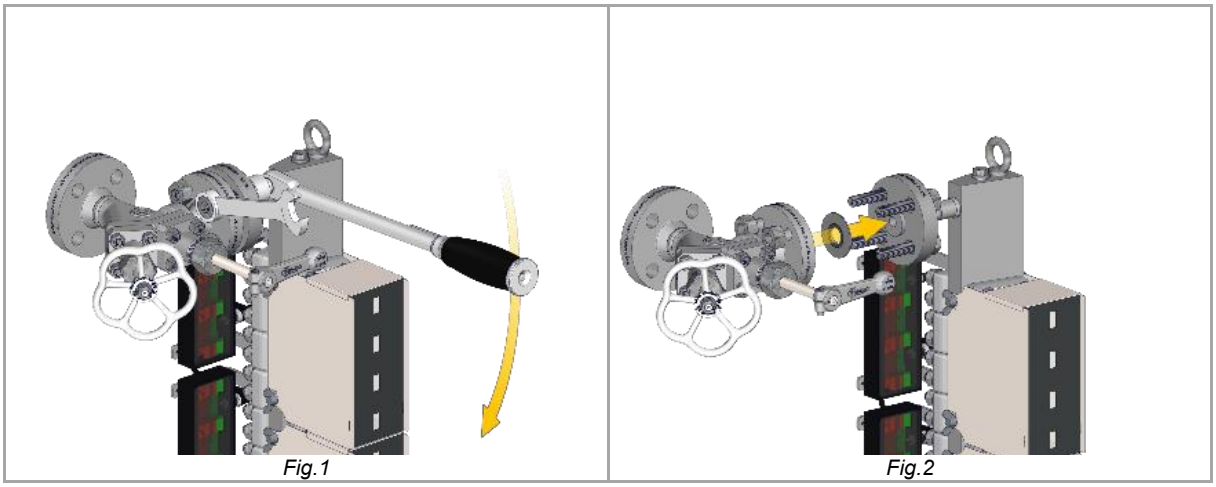


Fig.1 *Fig.2*

Figure 1

- The gauge must be depressurised *(chap. 9.2**Fehler! Verweisquelle konnte nicht gefunden werden.**)*
  - Loosen the hexagon nuts *(pos. 3.2)* on the flange connection and remove the threaded bolt *(pos. 3.3)* together with the nuts *(pos. 3.2)*.

The display body hangs freely after this step and must be secured against falling.

NOTE

Property damage due to impacts

When handling the gauge, it can be damaged by impacts.

- Secure the body against falling.

Figure 2

- Remove the display body from the flanges.
- Secure the sealing ring *(pos. 9.3)* between the flanges of the valves and the body against loss.

12.3 Disposal

ENVIRONMENT

Risk to the environment due to residues

Residues on the gauge can pose a danger to the environment.

- For returns, observe the applicable safety and environmental laws according to GGVSEB [The Dangerous Goods Ordinance on Roads, Railways and Inland Waterways].
- Indicate possible dangers and take precautionary measures.
- Label possible residues and enclose the safety data sheet.
- Register hazardous substance with the logistics service provider.

Danger to the environment from waste materials

Incorrectly disposed waste materials cause damage to the environment.

- Separating waste materials.
- Comply with local and legal regulations for waste disposal.

CAUTION

Health hazard due to dangerous residues

Residues of hazardous substances pose a health hazard.

- Indicate possible dangers and take precautionary measures.

This high-quality IGEMA product was designed, manufactured and tested with the application of the QM System guidelines in accordance with DIN EN ISO 9001:2015.

If the device supplied indicates transport damage or gives cause for complaint in spite of our final quality check, please contact our SERVICE department on telephone *+49 2501 92424-0* immediately.

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