
# INSTALLATION AND OPERATING INSTRUCTIONS

Sensor unit

ZSU

DDOC02396

**THE KNOW-HOW FACTORY**

## Content



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# 1 Introduction

## 1.1 Supporting documents

**NOTICE**

Read through the instructions before installing or working with the product.

The instructions contain important notes for your personal safety. They must be read and understood by all persons who work with or handle the product during any phase of the product lifetime.

The documents listed below are available for download on our website www.zimmer-group.com:

- Instructions
- Catalogs, drawings, CAD data, performance data
- Information on accessories
- Technical data sheets
- General Terms and Conditions (GTCs), including warranty information.

⇨ Only the documents currently available on the website are valid.

In these instructions, “product” replaces the product designation on the title page.

## 1.2 Notices and graphics in the instructions

**DANGER**

This notice warns of an imminent danger to the life and health of people. Ignoring these notices can lead to serious injury or even death.

▶ You absolutely must comply with the described measures for avoiding these dangers.

⇨ The warning symbols are assigned according to the type of danger.

**WARNING**

This notice warns of a situation that is potentially hazardous to personal health. Ignoring these notices can cause serious injury or damage to health.

▶ You absolutely must comply with the described measures for avoiding these dangers.

⇨ The warning symbols are assigned according to the type of danger.

**CAUTION**

This notice warns of a situation that is potentially hazardous to people. Ignoring these notices can cause minor, reversible injuries.

▶ You absolutely must comply with the described measures for avoiding these dangers.

⇨ The warning symbols are assigned according to the type of danger.

**NOTICE**

This notice warns of possible material or environmental damage. Ignoring these notices can result in damage to the product or the environment.

▶ You absolutely must comply with the described measures for avoiding these dangers.

⇨ The warning symbols are assigned according to the type of danger.

**INFORMATION**

This category contains useful tips for handling the product efficiently. Failure to observe these tips will not result in damage to the product. This information does not include any information relevant to health or workplace safety.

## 1.3 Figures

The figures may deviate from the actual state.

## 2 Safety notices

**CAUTION**

**Risk of injury and material damage in case of non-compliance**

Installation, commissioning, maintenance and repairs may only be performed by qualified specialists in accordance with these instructions.

The product is state-of-the-art.

The following are examples of situations in which the product may cause a hazard:

- The product is not properly installed, used or maintained.
- The product is not used for its designated purpose.
- The locally applicable regulations, laws, directives or guidelines are not observed.

► The product may only be used in accordance with these instructions and the product's technical data. Any changes or additions to the intended use of the product, as well as modifications to the product, such as those in the following examples, require the written permission of the manufacturer:

- Use of the product under extreme conditions, such as aggressive fluids or abrasive dusts
- Additional drilled holes or threads

⇨ Zimmer Group GmbH accepts no liability for any damage caused by improper use. The operator bears sole responsibility.

► Make sure that the power supply is disconnected before you install, adjust, modify, maintain or repair the product.

► Perform maintenance tasks, retrofitting or attachment work outside of the machine's danger zone when possible.

► When using the product under extreme conditions, adjust the maintenance interval according to the degree of soiling.

► Check the completeness and tightening torques of all mounting screws.

## 3 Proper use

**NOTICE**

**Material damage and malfunction in case of non-compliance**

The product is only to be used in its original state with its original accessories, with no unauthorized changes and within the stipulated parameter limits and operating conditions.

Any other or secondary use is deemed improper.

- ► Operate the product only in compliance with the associated instructions.
- ► Operate the product only when it is in a technical condition that corresponds to the guaranteed parameters and operating conditions.
- ⇨ Zimmer Group GmbH accepts no liability for any damage caused by improper use. The operator bears sole responsibility.

- The product must not be operated in an environment that is subjected to vibrations and impacts.
- The product must not be operated in an environment that is subjected to corrosive gases, chemicals, seawater, water or steam.
- The product is intended for industrial use.
- The product is not suited for use in a potentially explosive atmosphere.

## 4 Personnel qualification

**WARNING**

**Injuries and material damage due to inadequate qualification**

If inadequately qualified personnel perform work on the product, this can cause serious injuries and significant material damage.

- ► All work on the product must be performed by qualified personnel.
- ► Before working with the product, read the document in its entirety and make sure that you have understood everything.
- ► Observe country-specific accident prevention regulations and the general safety notices.

The following qualifications are a prerequisite for performing various types of work on the product.

### 4.1 Electricians

Electricians are able to perform work on electrical systems, can recognize and avoid possible dangers and know the relevant standards and provisions due to their technical training, knowledge and experience.

### 4.2 Specialists

Specialists are able to perform the assigned work, can recognize and avoid possible dangers and know the relevant standards and provisions due to their technical training, knowledge and experience.

### 4.3 Instructed personnel

Instructed personnel have been trained by the operating company on the tasks and possible dangers of improper behavior.

### 4.4 Service personnel

Service personnel are able to perform the assigned work and can recognize and avoid possible dangers due to their technical training, knowledge and experience.

### 4.5 Additional qualifications

Personnel who work with the product must be familiar with the valid safety regulations and laws as well as the standards, guidelines and laws listed in this document.

Personnel who work with the product must have facility-issued authorization to commission, program, configure, operate, maintain and also decommission this product.

## 5 Product description

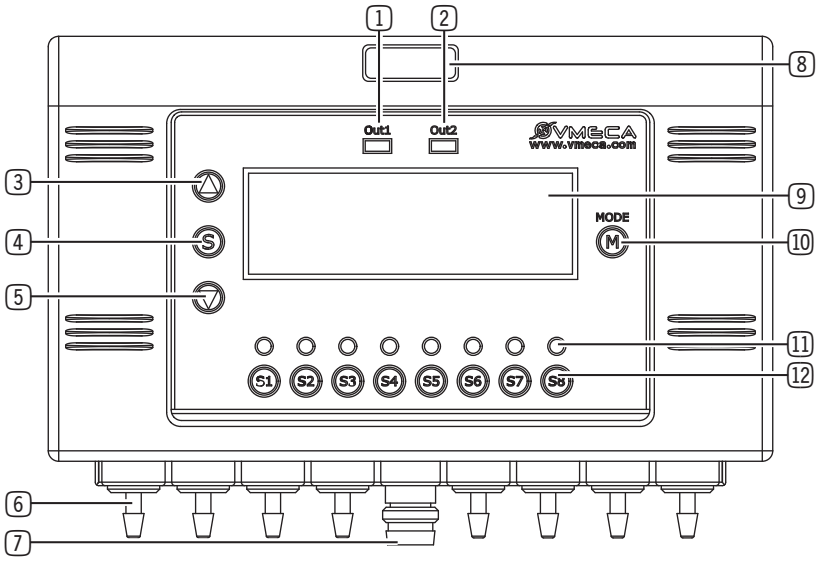
The product is designed to control and monitor the vacuum level of vacuum grippers. It has 8 sensors to detect faults or damage to the connected products.

The product is available as an NPN or PNP variant.

The product is supplied with the output signal type NC (normal close).

Depending on requirements, group A and group B can be controlled separately or simultaneously.

The figure shows an example of a product variant.




1 LED display for group A

2 LED display for group B

3 *Up arrow* button

4 *Setup* button

5 *Down arrow* button

6 Vacuum connection

7 Electrical connection

8 LED total display

9 Display

10 *Mode* button

11 LED display of the sensor number

12 Sensor number

## 6 Technical data

**INFORMATION**

► You can find the information in the technical data sheet on our website.

This data varies within the series, depending on the specific design.

## 7 Accessories/scope of delivery

**INFORMATION**

If any accessories not sold or authorized by Zimmer Group GmbH are used, the function of the product cannot be guaranteed. The accessories from Zimmer Group GmbH are specifically tailored to the individual products.

► For information on optional accessories and those included in the scope of delivery, refer to our website.

## 8 Transportation/storage/preservation

- ► Transport and store the product only in the original packaging.
- ► During transport, make sure that no uncontrolled movements can occur if the product is already mounted on the higher-level machine unit.
  - ► Prior to commissioning and after transport, check all power and communication connections as well as all mechanical connections.
- ► Observe the following points when storing the product for longer periods of time:
  - ► Keep the storage location as dust-free and dry as possible.
  - ► Avoid temperature fluctuations.
  - ► Avoid wind, drafts and formation of condensation.
  - ► Avoid direct sunlight.
- ► Clean all components until all contamination has been removed.
- ► Visually inspect all components.
- ► Remove any foreign objects.

## 9 Installation

**WARNING**

**Risk of injury due to uncontrolled movement**

Risk of injury in case of uncontrolled movements of the machine or system into which the product is to be installed.

- ► Switch off the energy supply of the machine before all work.
- ► Secure the energy supply against being switched on unintentionally.
- ► Check the machine for any residual energy that may be present.

**INFORMATION**

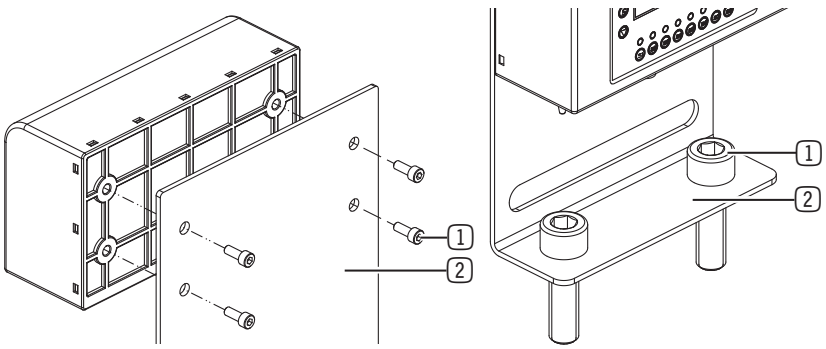
Further installation information:

- The mounting screws are not included in the scope of delivery.

- ► Install the product on a sufficiently flat mounting surface.
- ► Make sure that the mounting piece is sufficiently rigid.
- ► Ensure the cleanliness of the connection surfaces.

### 9.1 Installing the product

- ► Depending on the product variant, install the product directly or via the fastening bracket.
  - ► If necessary, use washers and lock nuts.




1 Mounting screw

2 Fastening bracket

### 9.2 Pin assignment

**NOTICE**

**Material damage and malfunction in case of non-compliance**

Pins 2, 4 and 5 are used as input signals for the control system. This prevents overload current and prevents sensor malfunctions.

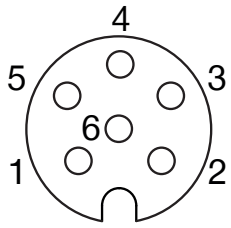
► Only use the pins in accordance with the intended signal logic.

**INFORMATION**

Pin 5 is only used in mode 2.

If a sensor does not reach the desired vacuum level over a certain number of attempts, an error is output and the LED for the corresponding sensor number flashes red. The number of repetitions until an error is displayed can be set individually.

► For more information, please refer to sec. "11.2.4.1 Setting repetitions until error display (only in G2 mode)".

| Pin | Color | Function | Socket, M8 |
|---|---|---|---|
| 1 | Brown | 24V DC supply voltage |  |
| 2 | White | Signal for LED for group A | |
| 3 | Blue | 0V DC supply voltage | |
| 4 | Black | Signal for LED for group B | |
| 5 | Gray | Fault detection | |
| 6 | Pink | n. c. | |



## 10 Commissioning

### 10.1 Overview of the modes

In group mode, the sensors can be divided into two groups and settings can be made for one group of sensors each. The number of sensors per group can be selected as required.

In both modes, you can then choose between 4 different additional modes. These are suitable for different applications.

**INFORMATION**

In group mode, the mode with the suffix *G* is shown on the display.

### 10.1.1 Mode G1 (All)

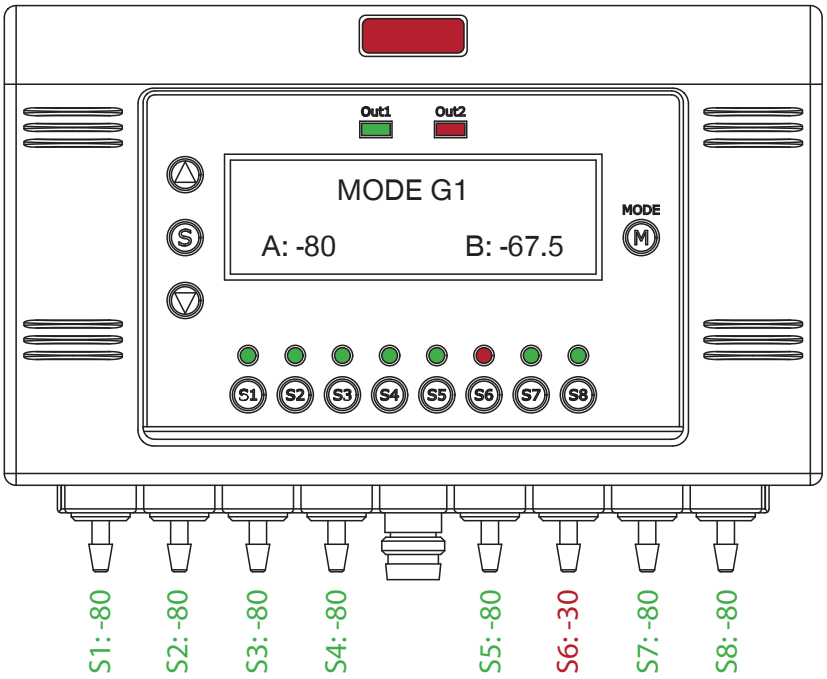
- The same vacuum level can be set for several sensors at the same time.
- All sensors in a group must reach the set vacuum level.
- For sensors that reach the set vacuum level, the LED for the sensor number lights up green.
- For sensors that do not reach the set vacuum level, the LED for the sensor number lights up red.

Example:

Group A = - 80 kPa

Group B = - 80 kPa

⇨ The LED for group B lights up red, as S6 does not meet the condition.




### 10.1.2 Mode G2 (Average)

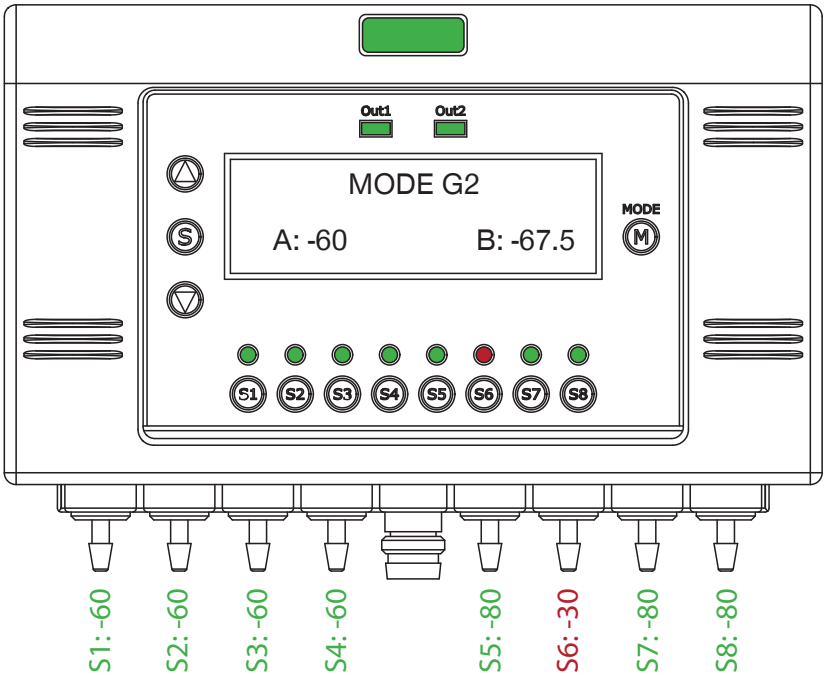
- The same vacuum level can be set for several sensors at the same time.
- All sensors in a group must achieve an average value together.
- For sensors that reach the set vacuum level, the LED for the sensor number lights up green.
- For sensors that do not reach the set vacuum level, the LED for the sensor number lights up red.

Example:

Group A = - 60 kPa

Group B = - 60 kPa

⇨ The LED for group B lights up green, as the average value within the group has been reached, although S6 does not meet the condition.

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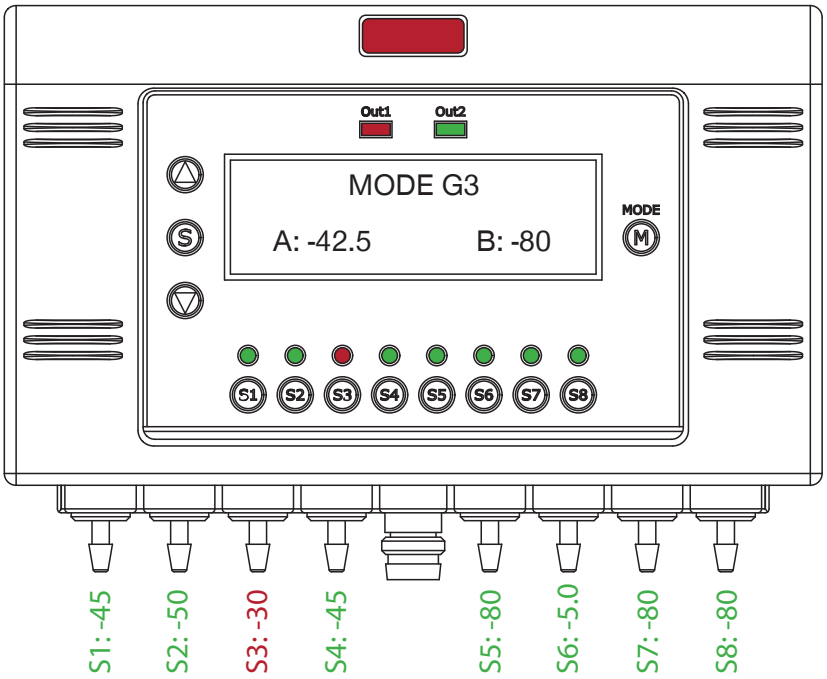
### 10.1.3 Mode G3 (Individual)

- An individual vacuum level can be set for each sensor.
- Each sensor must reach the vacuum level set for it.
- For sensors that reach the set vacuum level, the LED for the sensor number lights up green.
- For sensors that do not reach the set vacuum level, the LED for the sensor number lights up red.




Example:

S1 = -40 kPa

S2 = -50 kPa

S3 = -50 kPa

S4 = -40 kPa

S5 = -70 kPa

S6 = -80 kPa

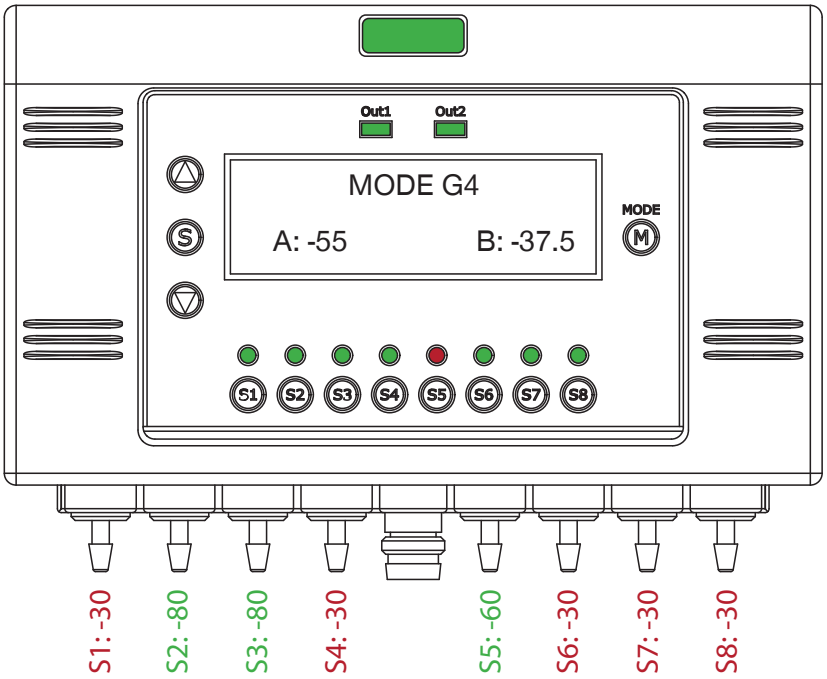
S7 = -70 kPa

S8 = -80 kPa

⇨ The LED for group A lights up red, as S3 does not meet the condition.

### 10.1.4 Mode G4 (Or)

- A vacuum level can be set for all sensors by defining only one sensor.
- A selection of sensors is not required.
- At least one of the sensors per group must reach the set vacuum level.




Example:

Group A = - 80 kPa

Group B = - 60 kPa

⇨ The LEDs for groups A and B light up green, as at least one of the sensors in the respective group meets the condition.

# 11 Operation

**INFORMATION**

**Setting switching thresholds**

Parameters H-1 and P-1 define the threshold values for the output signal depending on the vacuum level.

They are used to set up a hysteresis to ensure stable switching behavior and to prevent unwanted fluttering of the output signal in the event of small pressure fluctuations.

P-1 indicates the switch-on point.

The output signal becomes active as soon as the measured vacuum level exceeds the set value.

H-1 indicates the switch-off point.

The output signal is deactivated as soon as the measured vacuum level falls below the set value.

## 11.1 Selecting the mode

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ *Setup* flashes in line 1 and the current mode is displayed in line 2.
- ▶ Use the *Up arrow* or *Down arrow* button to change the mode.
- ⇨ *Setup* flashes in line 1 and the selected mode is displayed in line 2.
- ▶ If you want to confirm the selected mode, press the *Mode* button for 1 second.
- ⇨ The selected mode and the two groups A and B with the corresponding vacuum level are shown on the display.
- ⇨ The selection is complete.

## 11.2 Mode G1 and G2

### 11.2.1 Selecting sensors

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 3 times.
- ⇨ The product displays *USE SENSOR* and asks which sensor is to be used.
- ▶ Press the *Setup* button 1 time.
- ▶ Press the sensor number *S1*.
- ▶ If you want to use the sensor, press the *Up arrow* button. If you do not want to use the sensor, press the *Down arrow* button.
- ⇨ The LED does not light up for selected sensors and lights up red for unselected sensors.
- ▶ Press the next sensor number, e.g., *S2*.
- ▶ Use the *Up arrow* and *Down arrow* buttons again to select whether you want to use the sensor.
- ▶ Repeat the process for all the sensors.
- ▶ To complete the selection, press the *Mode* button 3 times.

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### 11.2.2 Group settings

▶ Press the *Setup* button for 3 seconds.
⇨ The display shows *Setup* and the corresponding mode.
▶ Press the *Setup* button 1 time.
⇨ The display shows *Setup* and *OUT1 P-1*.
▶ Press the *Up arrow* button 9 times.
⇨ The display shows *Setup Sensor Group*.
▶ Press the *Setup* button 1 time.
▶ Press the sensor number that you want to add to the group.
▶ Use the *Up arrow* and *Down arrow* buttons to select the group.
▶ Press the next sensor number, e.g., *S2*.
▶ Use the *Up arrow* and *Down arrow* buttons to select the group.
▶ Repeat the process for all the sensors.
▶ To complete the selection, press the *Mode* button 3 times.

### 11.2.3 Setting switch-on point P-1

▶ Press the *Setup* button for 3 seconds.
⇨ The display shows *Setup* and the corresponding mode.
▶ Press the *Setup* button 1 time.
⇨ The display shows *Setup* and *OUT1 P-1*.
▶ Press the *Setup* button 1 time.
▶ Use the *S1–S8* buttons to select a sensor.
⇨ The corresponding group A or B of the respective sensor is displayed.
▶ Use the *Up arrow* and *Down arrow* buttons to change the vacuum level.
▶ To complete the selection, press the *Mode* button 3 times.

### 11.2.4 Setting switch-off point H-1

▶ Press the *Setup* button for 3 seconds.
⇨ The display shows *Setup* and the corresponding mode.
▶ Press the *Setup* button 1 time.
⇨ The display shows *Setup* and *OUT1 P-1*.
▶ Press the *Up arrow* button 1 time.
⇨ The display shows *Setup* and *OUT1 H-1*.
▶ Press the *Setup* button 1 time.
▶ Use the *S1–S8* buttons to select a sensor.
⇨ The corresponding group A or B of the respective sensor is displayed.
▶ Use the *Up arrow* and *Down arrow* buttons to change the vacuum level.
▶ To complete the selection, press the *Mode* button 3 times.

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#### 11.2.4.1 Setting repetitions until error display (only in G2 mode)

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 7 times.
- ⇨ The display shows *Setup Fail Count*.
- ▶ Press the *Setup* button 1 time.
- ▶ Use the *Up arrow* and *Down arrow* buttons to change the repetitions up to the error display.
- ▶ To complete the selection, press the *Mode* button 3 times.

### 11.3 Mode G3

#### 11.3.1 Selecting sensors

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 3 times.
- ⇨ The product asks which sensor should be used.
- ▶ Press the *Setup* button 1 time.
- ▶ Press the sensor number *S1*.
- ▶ If you want to use the sensor, press the *Up arrow* button. If you do not want to use the sensor, press the *Down arrow* button.
- ⇨ The LED does not light up for selected sensors and lights up red for unselected sensors.
- ▶ Press the next sensor number, e.g., *S2*.
- ▶ Use the *Up arrow* and *Down arrow* buttons again to select whether you want to use the sensor.
- ▶ Repeat the process for all the sensors.
- ▶ To complete the selection, press the *Mode* button 3 times.

#### 11.3.2 Group settings

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 9 times.
- ⇨ The display shows *Setup Sensor Group*.
- ▶ Press the *Setup* button 1 time.
- ▶ Press the sensor number that you want to add to the group.
- ▶ Use the *Up arrow* and *Down arrow* buttons to select the group.
- ▶ Press the next sensor number, e.g., *S2*.
- ▶ Use the *Up arrow* and *Down arrow* buttons to select the group.
- ▶ Repeat the process for all the sensors.
- ▶ To complete the selection, press the *Mode* button 3 times.

### 11.3.3 Setting switch-on point P-1

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Setup* button 1 time.
- ▶ Press the sensor number *S1*.
- ▶ Use the *Up arrow* and *Down arrow* buttons to change the vacuum level.
- ▶ Press the sensor number *S2*.
- ▶ Use the *Up arrow* and *Down arrow* buttons to change the vacuum level.
- ▶ To complete the selection, press the *Mode* button 3 times.

### 11.3.4 Setting switch-off point H-1

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 H-1*.
- ▶ Press the *Setup* button 1 time.
- ▶ Press the sensor number *S1*.
- ▶ Use the *Up arrow* and *Down arrow* buttons to change the vacuum level.
- ▶ Press the sensor number *S2*.
- ▶ Use the *Up arrow* and *Down arrow* buttons to change the vacuum level.
- ▶ To complete the selection, press the *Mode* button 3 times.

## 11.4 Mode G4

### 11.4.1 Group settings

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 9 times.
- ⇨ The display shows *Setup Sensor Group*.
- ▶ Press the *Setup* button 1 time.
- ▶ Press the sensor number that you want to add to the group.
- ▶ Use the *Up arrow* and *Down arrow* buttons to select the group.
- ▶ Press the next sensor number, e.g., *S2*.
- ▶ Use the *Up arrow* and *Down arrow* buttons to select the group.
- ▶ Repeat the process for all the sensors.
- ▶ To complete the selection, press the *Mode* button 3 times.

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### 11.4.2 Setting switch-on point P-1

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Setup* button 1 time.
- ▶ Use the *S1–S8* buttons to select a sensor.
- ⇨ The corresponding group A or B of the respective sensor is displayed.
- ▶ Use the *Up arrow* and *Down arrow* buttons to change the vacuum level.
- ▶ To complete the selection, press the *Mode* button 3 times.

### 11.4.3 Setting switch-off point H-1

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 H-1*.
- ▶ Press the *Setup* button 1 time.
- ▶ Use the *S1–S8* buttons to select a sensor.
- ⇨ The corresponding group A or B of the respective sensor is displayed.
- ▶ Use the *Up arrow* and *Down arrow* buttons to change the vacuum level.
- ▶ To complete the selection, press the *Mode* button 3 times.

## 11.5 Changing the output signal type

### 11.5.1 Mode G1, G2, G3 and G4

The product is supplied with the output signal type NC (normal close).

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 4 times.
- ⇨ The display shows *Setup* and *OUTPUT STATE*.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup Normal close*.
- ▶ Press the *Down arrow* button 1 time.
- ⇨ The display shows *Setup Normal open*.
- ▶ To confirm the selection, press the *Mode* button 3 times.

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### 11.6 Checking the current vacuum level

#### 11.6.1 Mode G1, G2 and G4

- ▶ Press the *Setup* button 1 time.
- ▶ Press any sensor number in the group whose vacuum level you want to display.
- ⇨ The display shows the vacuum level of the corresponding group.
- ▶ Press the *Mode* button 1 time to exit view mode.

#### 11.6.2 Mode G3

- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows the vacuum level of a specific sensor.
- ▶ Press the number of the sensor whose vacuum level you want to display.
- ▶ Press the *Mode* button 1 time to exit view mode.

### 11.7 Resetting settings

- ▶ Press the *Setup* button for 3 seconds.
- ⇨ The display shows *Setup* and the corresponding mode.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows *Setup* and *OUT1 P-1*.
- ▶ Press the *Up arrow* button 5 times.
- ⇨ The display shows *Setup Init Sensor*.
- ▶ Press the *Setup* button 1 time.
- ⇨ The display shows the sensor number that is being reset.
- ▶ Press the *Down arrow* button 1 time.
- ⇨ The display shows *OK* and the sensor is reset.
- ▶ Repeat the process for all the sensors.
- ▶ Press the *Mode* button 3 times to complete the process.

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## 12 Maintenance

**NOTICE**

**Material damage caused by unsuitable cleaning materials**

Liquid and solvent-based cleaning agents can cause malfunctions.

► Do not clean the product with any cleaning agents that are liquid or contain solvents.

► Note that the product could become damaged under the following circumstances:

- Dirty environment
- Improper use and use that does not comply with the performance data
- Permissible temperature range not observed

► Visually check the product regularly for damage and dirt.

► Have maintenance work that requires disassembly of the product performed by customer service only.

⇨ Dismantling and reassembling the product without authorization may result in complications, as special installation equipment is required in some cases. Zimmer Group GmbH accepts no liability for any resulting malfunctions or damage.

## 13 Decommissioning/disposal

**INFORMATION**

When the product reaches the end of its operational phase, it can be completely disassembled and disposed of.

► Disconnect the product completely from the power supply.

► Dispose of the components properly according to the material groups.

► Comply with the locally applicable environmental and disposal regulations.

## 14 RoHS declaration

In terms of the EU Directive 2011/65/EU

**Name and address of the manufacturer:**

**Zimmer Group GmbH**

Am Glockenloch 2
77866 Rheinau, Germany
+49 7844 9138 0
info@zimmer-group.com
www.zimmer-group.com

We hereby declare that the incomplete machine described below

**Product designation:** Sensor unit

**Type designation:** ZSU

conforms to the requirements of the directive in its design and the version we put on the market.

| | | |
|---|---|---|
| Michael Hoch | Rheinau, Germany, 2025-01-07 | |
| Authorized representative for compiling the relevant technical documents | (Place and date of issue) | Martin Zimmer<br>(Legally binding signature)<br>Managing Partner |

## 15 Declaration of Conformity

In terms of the EC Directive 2014/30/EU on electromagnetic compatibility

**Name and address of the manufacturer:**

**Zimmer Group GmbH**

Am Glockenloch 2
77866 Rheinau, Germany
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We hereby declare that the product described below

| | |
|---|---|
| **Product designation:** | Sensor unit |
| **Type designation:** | ZSU |

conforms to the requirements of the Electromagnetic Compatibility Directive 2014/30/EU in its design and the version we put on the market.

The following harmonized standards have been used:

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|---|---|
| DIN EN ISO 12100 | Safety of machinery – General principles for design – Risk assessment and risk reduction |
| DIN EN 61326-1 | Electrical equipment for measurement, control and laboratory use. EMC requirements – General requirements |

A full list of applied standards can be obtained from the manufacturer.

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| Nicolas Steiger | Rheinau, Germany, 2025-01-07 | |
| Authorized representative for compiling the relevant technical documents | (Place and date of issue) | Martin Zimmer<br>(Legally binding signature)<br>Managing Partner |