vacuubrand

Technology for Vacuum Systems

VACUUM GAUGE

VACUU·VIEW
VACUU·VIEW extended

Instructions for use

Original instructions

N°: 999293_EN

Original instructions
Keep for further use!

This manual is only to be used and distributed in its complete and original form. It is strictly the users' responsibility to check carefully the validity of this manual with respect to his product.

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Thank you for purchasing this product from **VACUUBRAND GMBH + CO KG**. *You have chosen a modern and technically high quality product.*

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1 Introduction

This manual is part of your product. It provides important instructions for safe use of the product. Read this manual completely in order to understand proper use of your product.

1.1 User information

Safety

Instructions for use and safety

- Read this manual thoroughly and completely before using the produkt.
- Keep this manual in an easily accessible location.
- Proper use of the product is essential for safe operation. Comply with all safety instructions provided!
- In addition to this manual, adhere to any relevant local accident prevention regulations and comply with industrial safety regulations.

General

General information

- Instead of the term ***VACUU·VIEW*** mostly the term *Gauge* or *Vacuum gauge* is used in this manual, in order to make the text more readable.
- The illustrations in this manual are provided as examples.
- They are intended to aid in your understanding of the proper use of the product.

Contact

Contact us

- Please ask for replacement in case of an incomplete manual. or download instructions for use on our web page: www.vacuubrand.com
- Contact us regarding any questions about this product, if you need further information, or to provide us with feedback.
- When contacting our Customer Service Department, please be sure to have the correct type and serial number of your product → *see Rating plate on the product.*

Copyright

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1.2 About this document

1.2.1 Display conventions

Warning instruction

Presentation conventions

CAUTION

Indicates a potentially hazardous situation.

Disregarding the situation could result in slight or minor injury or damage to property.

⇨ Take appropriate action to avoid dangerous situation!

NOTICE

Notice for a potentially harmful situation.

Disregarding the notice could lead to material damage.

Additional notes

IMPORTANT!

⇨ Information or specific use recommendation, which must be observed.

⇨ Important information for the proper operation.

⇨ Helpful tips and tricks

⇨ Additional information

1.2.2 Handling instructions (action steps)

Further presentation conventions

Action step (single step)

⇨ Do the described step.

☑ Result of action

Handling instructions(multiple steps)

1. first step

2. next step

☑ Result of action

Follow steps in the described order.

1.2.3 Abbreviations

Abbreviations

abs.		absolute
ATM		Atmospheric pressure
d_i	(di)	Interior diameter
DN		Nominal diameter
Gr.		Size
hPa		Pressure unit, Hectopascal (1 hPa = 1 mbar = 0.75 Torr)
KF		Small flange
max		Maximum value
mbar		Pressure unit, millibar (1 mbar = 1 hPa = 0.75 Torr)
min		Minimum value
RMA-N°		Return Merchandise Authorization number
Torr		Pressure unit (1 Torr = 1.33 mbar = 1.33 hPa)
VAC		Vacuum

1.2.4 Term definition

Product specific terms

VACUU·BUS®	Bus system by **VACUUBRAND**
CVC 3000	Vacuum controller, Controller
DCP 3000	Vacuum gauge

2 Safety instructions

The complete information of this chapter must be observed by all persons working with the herein described product.

Use the product only when it is in proper working condition.

2.1 Intended use

Intended use

VACUU·VIEW is a laboratory instrument for the measurement of absolute pressure in the range of rough vacuum or as **VACUU·VIEW extended** version for both measuring rough and fine vacuum.

The gauge may only be used in non-explosive areas.

Any other use is considered to be improper use.

2.2 Improper use

Improper use

Improper use includes:

- Using the product contrary to its intended use.
- Operation with obvious malfunctions.
- Operation at inadmissible operating conditions.
- Unauthorized modifications or repairs provided by the customer.

2.3 General safety instructions

2.3.1 Safety precautions

Safety precautions

⇨ Use the gauge only if you have understood its function and this manual.

⇨ Please note that adhering process media can pose danger to humans and the environment.

⇨ When handling with contaminated parts, follow the relevant regulations and safety precautions.

⇨ Repairs are only allowed by the Service Department or your local supplier.

IMPORTANT!

For all service works hazardous substances need to be excluded.

⇨ Fill in the form Health and Safety Clearance thoroughly and completely and confirm with your signature.

2.3.2 Personnel

IMPORTANT!

It is the owner's responsibility to observe the proper use of the device.

⇨ Always be conscious of safety, and work in a safe manner.

⇨ Observe the owners‘ directives at work, the national accident prevention regulations and occupational safety provisions.

2.4 Proper disposal

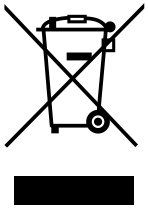
NOTICE

Risk of environmental damage due to incorrect disposal of the product.

⇨ Do not dispose your product in household trash! Electronic components are subject to hazardous waste treatment and must only be disposed of by certified specialists.

⇨ Observe the national regulations for safe disposal and environmental protection.

⇨ Receive detailed informationen for respective regulations from your competent administrative authority.



3 Product description

Goods arrival

Goods arrival

Check the shipment for transport damage and completeness.

⇨ Report any transit damage immediately to the supplier.

NOTICE

Condensate could damage the gauge.

A large difference in temperature between storage location and installation location can cause condensation.

⇨ Let the product acclimatise for 3-4 hours before using it.

Included materials

Scope of supply

Vacuum gauge	
VACUU·VIEW with 2 m connection cable	683220
or	
VACUU·VIEW extended with 2 m connection cable	683210

Hose nozzle 10/6 G1/4” with O ring	642474
Wall power supply plug* 30W 24V; with adapters and 2 m connection cable	612090
Instructions for use	999293
Safety Information for Vacuum Equipment	999254
Origin packaging	------

** not required when connected to a VACUU-BUS® compatible gauge or controller.*

3.1 Vacuum gauge VACUU·VIEW

Gauge description and designs

The gauge as stand-alone version will be supplied with wall power supply plug. The gauge has a built-in vacuum sensor and is equiped with an illuminated display for pressure reading. The gauge is highly, chemically resistant.

VACUU·VIEW completes the **VACUU·BUS®** accessories program. For more demanding tasks, which go beyond vacuum measurement and display, the gauge can be used as an external vacuum sensor when connected to a controller *CVC 3000* or a gauge *DCP 3000*.

When operating with a *DCP 3000*, measured values can be stored (data logger) and graphically displayed. Via the RS 232 interface the pressure can be read by an external computer.

3.1.1 Designs

VACUU·VIEW

With chemically resistant ceramic diaphragm sensor for precise measurings in the range of **rough vacuum**. VACUU·VIEW provides gas-independent pressure indication with precise capacitive readout.

The material of the connection flange of **VACUU·VIEW** consists of black PP and is therefore – and by the rating plate – easy to distinguish from the extended design.

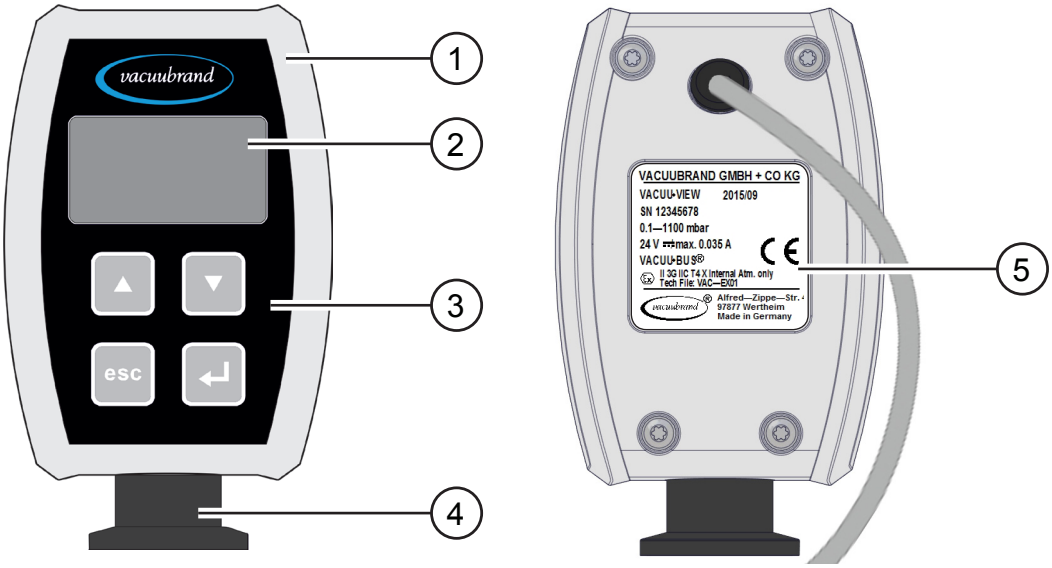
VACUU·VIEW extended

The heavy duty combination of ceramic diaphragm sensor and ceramic jacketed Pirani sensor ensures reliable readings in the wide range from atmosphere down to **rough until fine vacuum**. The gauge reliably measures in the complete measuring range.

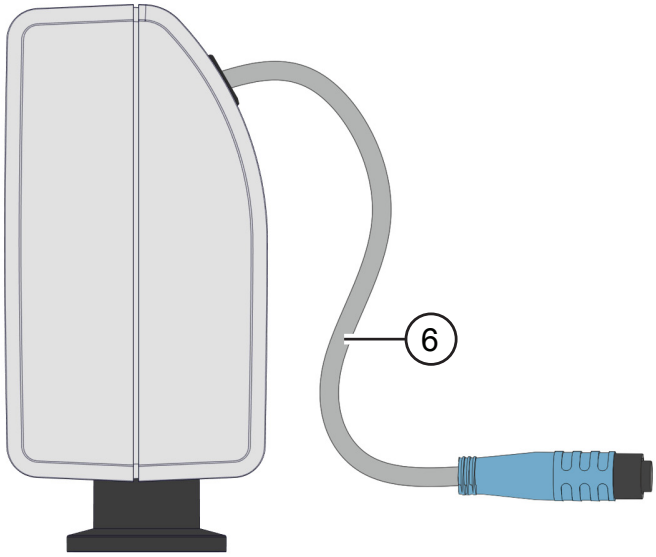
The connection flange of **VACUU·VIEW extended** consists of aluminium and is coated at its interior with PPS.

3.1.2 Device view

Front and rear side



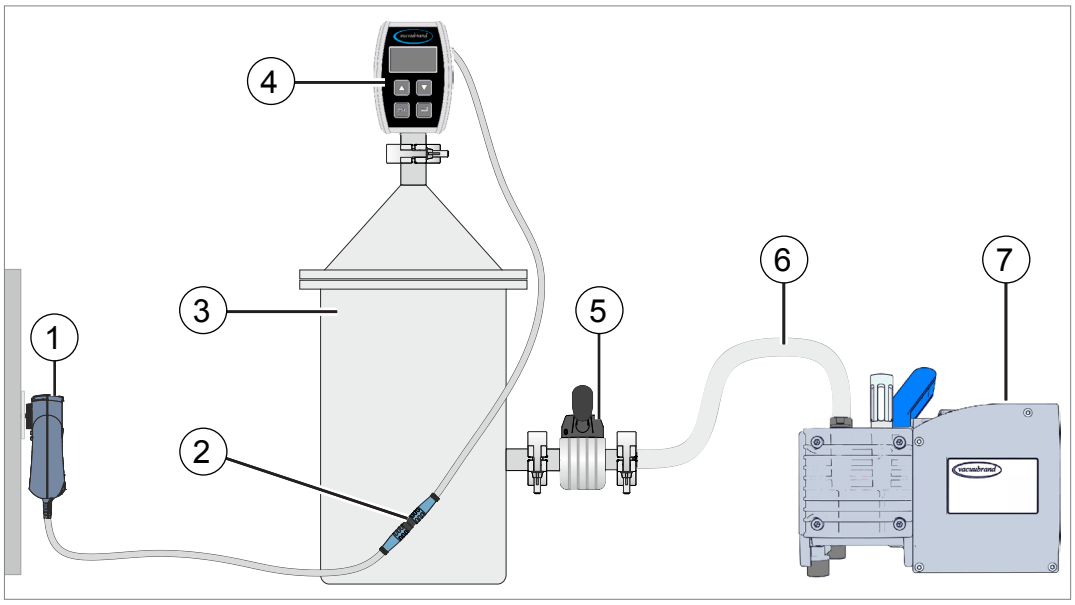
Side view



1	**VACUU·VIEW**
2	**Display**
3	**Operating elements**
4	**Small flange KF DN16, inside thread G1/4”** ▸ Material: PP black ⇨ **VACUU•VIEW** ▸ Material: Aluminium + PPS ⇨ **VACUU·VIEW extended**
5	**Rating plate** *(here VACUU·VIEW)*
6	**Connection cable**, 2 m ▸ for connection to wall power supply plug ***or*** ▸ for **VACUU·BUS®** connection to CVC 3000 or DCP 3000

3.2 Application example

→ Example VACUU·VIEW direct installation



1	Wall power supply, wall power supply plug
2	Plug connector, connection cable (each 2 m)
3	Rezipient, tank, apparatus
4	**VACUU·VIEW** vacuum gauge *(Stand-alone version including wall power supply plug)*
5	Vacuum valve
6	Vacuum hose
7	Diaphragm pump, vacuum pump

Please observe the following points to get an optimal measuring result:

- ⇨ Connect the gauge as close as possible to the apparatus.
- ⇨ If possible use the small flange for connection.
- ⇨ Connect the vacuum line with a cross-section as wide as possible.

4 Connection and operation

4.1 Connection

4.1.1 Installation

The gauge is intended for direct assembly to the apparatus (application).

⇨ Observe all specifications for installation, connection and operation according to technical data.
→ *see chapter 8.1 Technical information.*

⇨ Also observe the data on the rating plate.

⇨ Compare the permitted limits which are described in this manual, with your actual application regarding operating media, pressure, forces, moments, temperatures and voltage.

Installation conditions

Consider conditions

- The gauge has acclimatized.
- Ambient conditions are observed and are within the permitted limits of use.

Permitted limits of use		(US)
Ambient temperature	10–40 °C	50–104°F
Altitude, max.	3000 m abovesea level	9840 ft above sea level
Relative humidity	30–85 %, non condensing	
Protection type	IP 54	
Avoid condensation or contamination by dust, liquids or corrosive gases.		

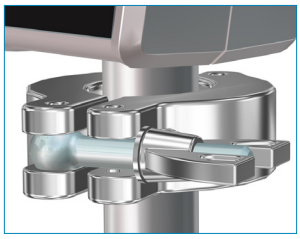
4.1.2 Vacuum connection

IMPORTANT!

- ⇨ Maximum admissable pressure at vacuum sensor: 1,5 bar/ 1125 Torr (absolute).
- ⇨ Pollution and damages, especially at the flange, could affect the measurement.
- ⇨ If possible assemble the vacuum gauge vertically with the flange downwards in order to avoid accumulation of condensate.

Connection via small flange

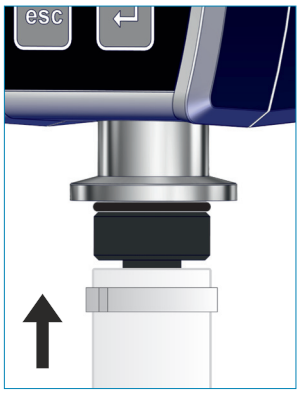
Required connection material: Clamping ring, centering or centering ring for KF DN16.



1. Remove the dust cap.
2. Put the gauge with the centering onto the connection of the apparatus → small flange KF DN16.
3. Fix the vacuum gauge with a clamping ring.

Connection via hose nozzle

Required connection material: Hose nozzle DN 6/10 mm G1/4” with O ring and compatible hose clip (option).



1. Remove the dust cap.
2. Screw the hose nozzle plus the o ring hand-tight into the inside thread.
3. Use the hose nozzle to assemble the gauge to a vacuum hose or directly at the apparatus.
4. Fix the vacuum hose, e. g., with a hose clamp.
5. Fix the vacuum gauge.

IMPORTANT!

- ⇨ Use a stable vacuum hose that is suitable for the required vacuum range. For fine vacuum range, flexible rubber hoses for example are not useful, because of possible gas emission.
- ⇨ Connect hose tubes as short as possible.

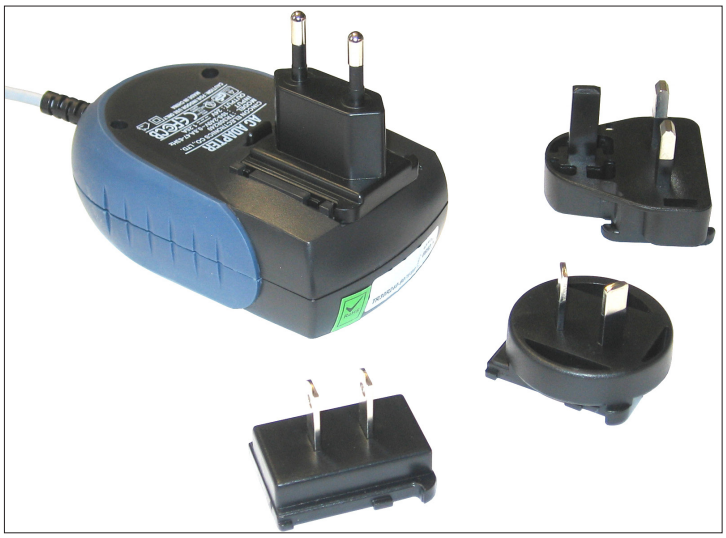
4.1.3 Electrical connection

NOTICE

No wall power supply plug is required when connected as VACUU-BUS® component, to a controller CVC 3000 or gauge DCP 3000.
⇨ Mains supply via VACUU-BUS®.

Wall power supply kit*

Wall power supply



** short-circuit-proofed multi-voltage power supply with integrated overload protection and changeable mains plugs.*

Prepare wall power supply plug

Prepare connection

1. Take the wall power supply kit out of the packaging.
2. Select the mains plug that fits to your mains socket.
3. Connect the mains plug to the metal contacts of the wall power supply plug.
4. Slide the mains plug until it locks.

Remove mains plug

Remove mains plug

1. Press the locking knob on top of the wall power supply plug.
2. Remove the mains plug.

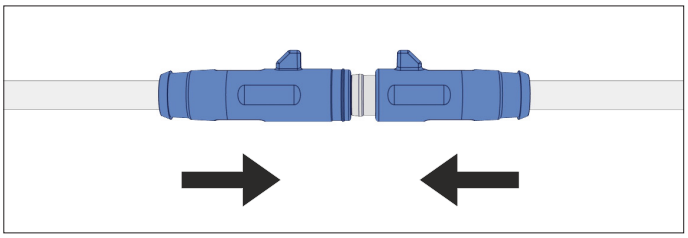
   ☑ Another mains plug can be fixed.

Connect to mains

IMPORTANT!

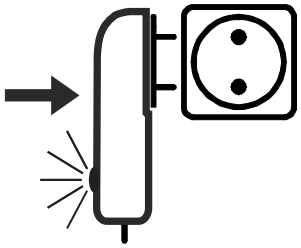
⇨ Please install the power supply line in such a way, that no damage can cause to the cable due to sharp edges, chemicals or hot surfaces.

1. Connect the mains connector from the gauge to the female plug of the wall power supply.



2. Plug the wall power supply into the mains socket.

   ☑ Green LED at wall power supply plug glows.

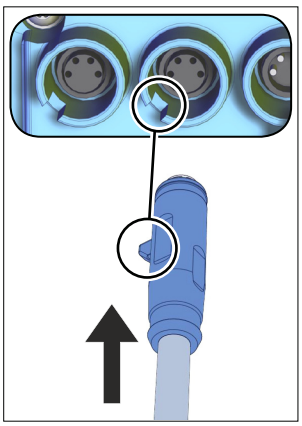


4.1.4 DCP 3000, CVC 3000, VACUU·BUS®

Meaning

VACUU·BUS® is a communication system for peripheral accessories that are connected to **VACUUBRAND** controller or gauge.

VACUU·BUS® components will be automatically detected by CVC 3000/DCP 3000. With uniform connectors and Y adapter the bus-system can be extended with up to 32 peripherals.



Connect VACUU·VIEW as VACUU·BUS® component

⇨ Plug the mains connector into the **VACUU·BUS®** port on the rear side of DCP 3000 or CVC 3000.

☑ Mains supply via CVC 3000 or DCP 3000.

Plug connectors of the newest series have a guide tongue for proper connection. Slide the connection into the guiding groove on the rear side of CVC 3000 or DCP 3000.

Feature

When using the gauge as **VACUU•BUS®** component, the controller (or gauge) detects the gauge automatically as vacuum sensor.

IMPORTANT!

⇨ First perform address assignment, when working with several **VACUU·VIEW** gauges of the same type.

⇨ For detailed descriptions about address assignment → *see online manual 999151 (CVC 3000).*

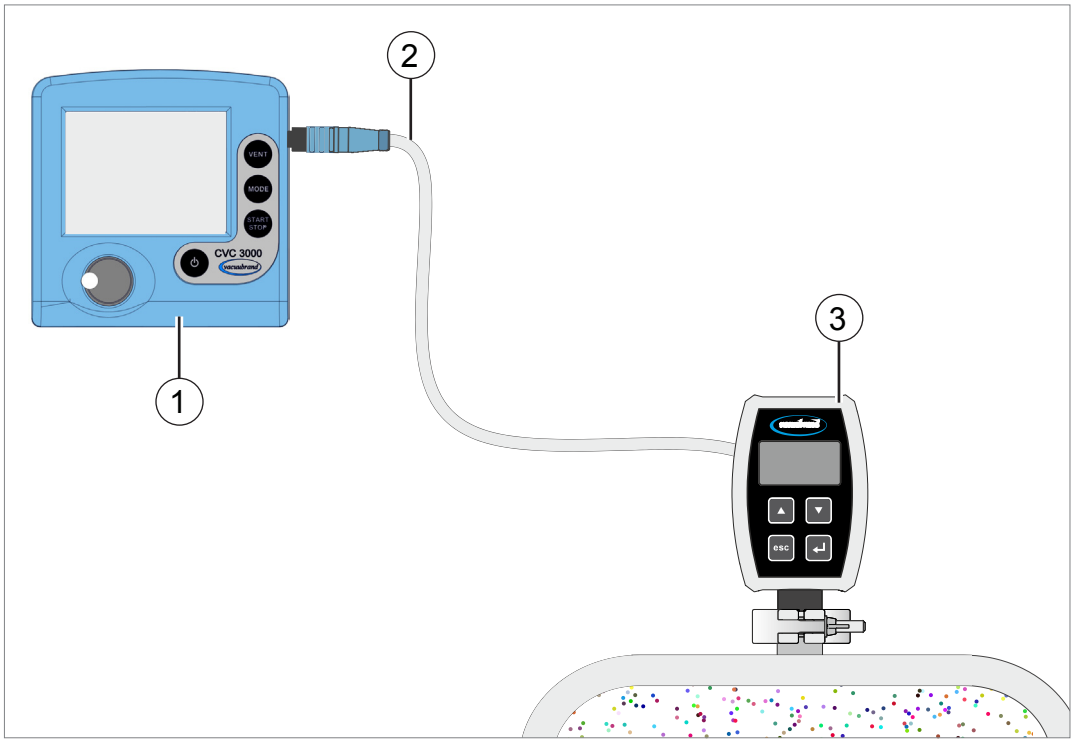
Address assignment

VACUU•BUS address assignment

Vacuubus component	Adress-N°.	Abbreviations in CVC/DCP
VACUU·VIEW	1–4	**VSK _**
VACUU·VIEW extended	1–4	**VSP _**

Connection example VACUU•BUS® with VACUU·VIEW

→ Example VACUU·VIEW as VACUU·BUS® component



1	CVC 3000 *(or DCP 3000)*
2	Connection cable *(mains supply via VACUU·BUS)*
3	**VACUU·VIEW** – rough vacuum measurement *or* **VACUU·VIEW extended** – rough until fine vacuum measurement

Y adapter

Use compatible **VACUU·BUS®** Y adapter to connect up to 4 **VACUU·VIEW** and up to 4 **VACUU·VIEW extended** to one CVC 3000 respectively DCP 3000.

→ see also: *Address assignment on page 18*

4.2 Operation

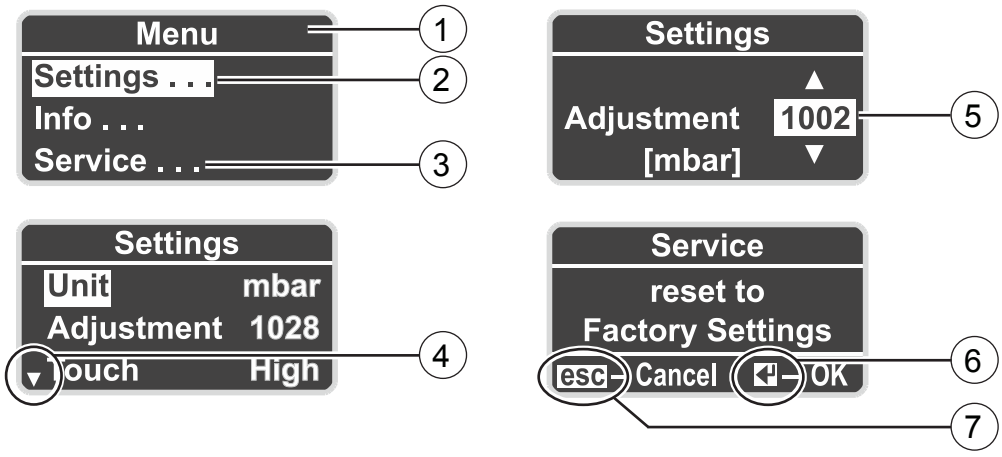
The operation is limited to the pre-settings with pressure unit and display settings, such as the sensitivity of the touch panel. Beside that, version information can be displayed and factory settings or updates can be loaded. Operation of the gauge is unnecessary during the running measurement.

4.2.1 Display elements

Icons on the display show which key needs to be pressed to open a menu or submenu.

Meaning display and symbols

→ Examples
Icons and illustrations on the display



1	Title bar
2	**Marking** = active selection
3	**. . .** = Refers to submenu
4	Press key arrow *down*
5	Adapt value with arrow *up* or *down*
6	Press *Enter*
7	Press *Esc*

4.2.2 Operating elements

The front side of the gauge consists of a glass with a touch-sensitive control pad including 4 keys.

Touch keys

Key	Meaning
	Arrow *up* ▸ Menu selection ▸ Navigate upwards ▸ Increase value
	Arrow *down* ▸ Menu selection ▸ Navigate downwards ▸ Decrease value
	*Enter* ▸ Confirm entry ▸ Call up menu ▸ Confirm value
	*Escape* ▸ Abort action or exit menu ▸ Return to previous menu ▸ Return to pressure display

NOTICE

Damage of the glass surface.

Pointed or edged objects could damage the glass surface of the gauge.

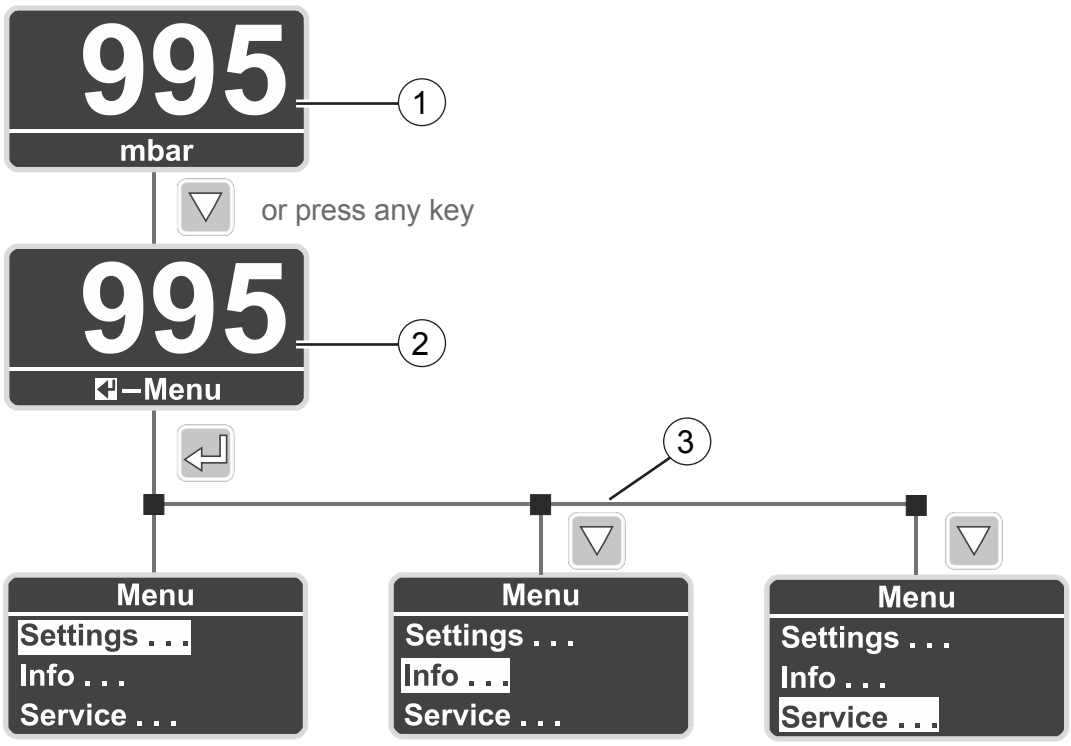
⇨ Operate the vacuum gauge only by a suitable touch stylus or finger.

4.2.3 Menu structure

The display with text **Menu** in the footer can be called up by any touch key. The menu language is English.

VACUU·VIEW menus

Menu structure



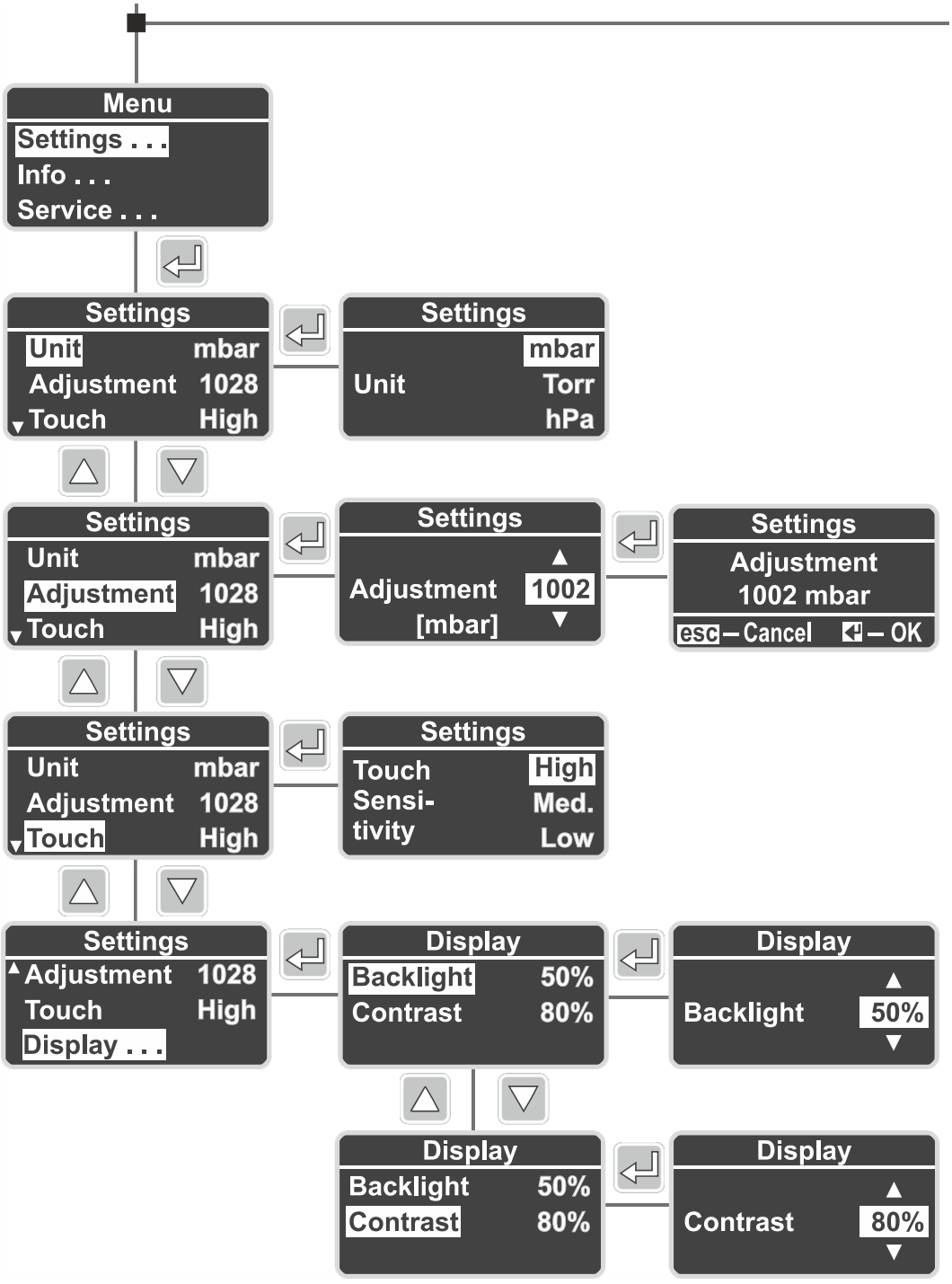
1	Pressure reading
2	Call-up selection menus
3	Menus ▸ Settings ▸ Info ▸ Service

Without any action, the display returns automatically to pressure display.

- Menu → return after approx. 5 seconds.
- Submenu→ return after approx. 20 seconds.

Menu Settings

Adjustment option for Settings

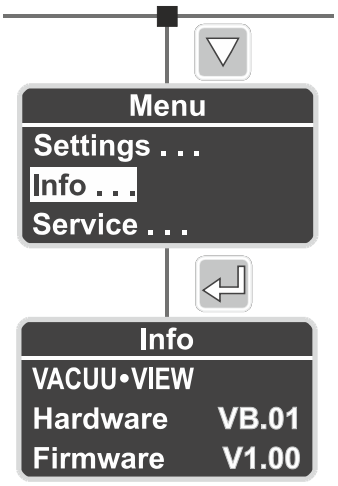


Menu Settings	
Unit	Default settings pressure unit ▸ mbar ▸ hPa ▸ Torr
Adjustment	Sensor adjustment ▸ ATM (700-1080 mbar) ▸ Vacuum (0 mbar)

Menu Settings	
Touch	Adjust touch panel sensivity ▸ High ▸ Media ▸ Low
Display	Adjust brightness and contrast ▸ Backlight: 10% – 100 % ▸ Contrast: 10% – 100 %

Menu Info

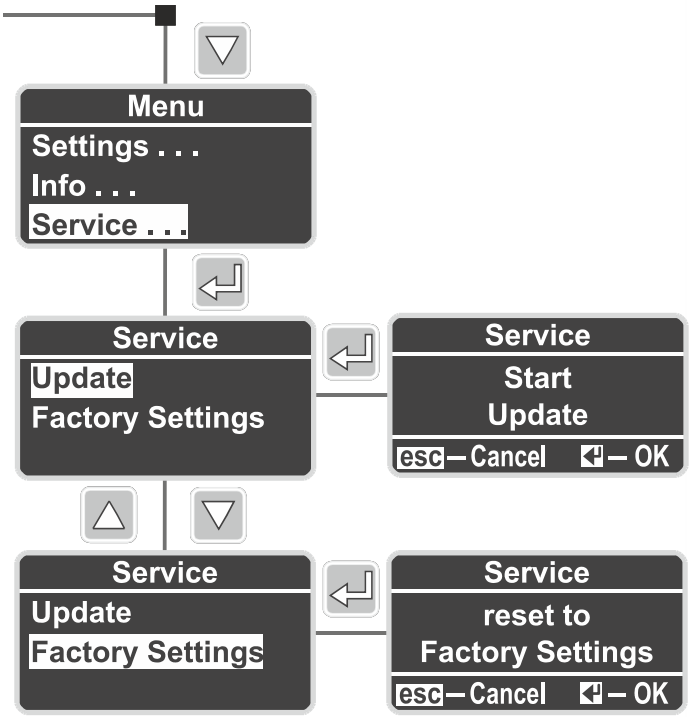
Call-up version information



Menu Info	
Info	Gauge type ▸ VACUU·VIEW ▸ VACUU·VIEW extended Gauge version *(display example)* ▸ Hardware: VB.xx ▸ Firmware: V1.xx

Service menu

Service menus



Service menu	
Update	Load software update ▸ Start Update
Factory Settings	Load factory settings ▸ reset to Factory Settings

5 Operation

5.1 Vacuum measurement

Directly after mains connection the **VACUU·VIEW (extended)** starts to measure and display the pressure reading.

Also when conneted to a **VACUU·BUS®** system, pressure reading starts immediately. The measurement starts immediately after connection to *CVC 3000* or *DCP 3000*.

The gauge is intended for continuous operation.

Warm-up (warm-up times)

IMPORTANT!

⇨ Observe the warm-up times until full measurement precision is reached.

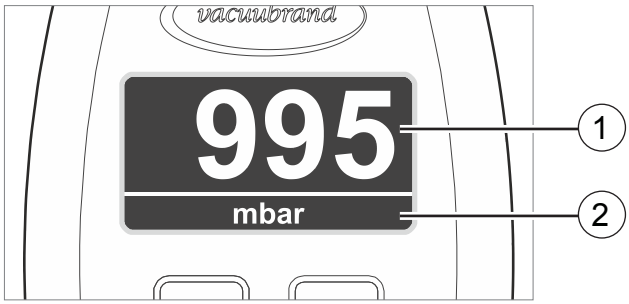
Warm-up times

VACUU·VIEW	Rough vacuum	▸ 3 minutes
VACUU·VIEW extended	Fine vacuum	▸ 15 minutes

5.2 Pressure reading

Display with pressure reading

Pressure reading, basic display



1	Pressure reading	(min./max.)
	VACUU·VIEW	▸ 0.1–1100 [mbar/hPa]
		▸ 0.1–825 [Torr]
	VACUU·VIEW extendet	▸ 0.001–1100 [mbar/hPa]
		▸ 0.001–825 [Torr]
2	Pressure unit (mbar, hPa, Torr)	

5.3 Adjustment

NOTICE

To determine the pressure VACUU·VIEW extended measures for pressures < 5 mbar resp. < 3.75 Torr, the pressure-dependent thermal conductivity of gas.

The gauge is factory calibrated for air (nitrogen). The measuring of gases, strongly deviating to air, could lead to incorrect pressure readings (< 5 mbar/< 3.75 Torr).

- light gases: pressure reading increases
- heavy gases: pressure reading decreases

⇨ If necessary, perform the sensor adjustment with the gas you operate with, e. g., H_2, He, Ar, CO_2.

Only after a complete warm-up a sensor adjustment is possible.

⇨ Perform the adjustment only when the instrument is ready for operation.

5.3.1 Sensor adjustment, in general

Adjustment is not part of the everyday operation. Perform adjustment only when the measured values differ from reference normal or when irregularities in pressure reading emerge. Only perform sensor adjustment with a warmed-up sensor (warm-up time 15–20 minutes).

Precondition for a proper sensor adjustment is the connection to a reliable source of vacuum, e. g., adjusmtent of a **VACUU•VIEW extended** with a high vacuum pump and a precise reference gauge.

In case of a polluted vacuum system, e. g., contaminated with oil, particles or humidity, the sensor could cause mismeasurements and/or falsify sensor adjustment.

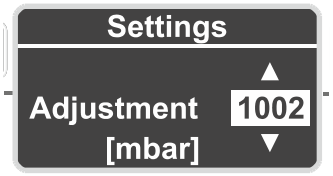
⇨ Clean polluted sensors before adjustment
→ see chapter: *7 Cleaning*.

5.3.2 Adjustment at atmospheric pressure

Sensor adjustment at atmospheric pressure

Sensor adjustment at atmospheric pressure

1. Call up the menu *Settings/Adjustment*.

☑ 

2. If necessary, correct the value to the precise atmospheric pressure in accordance with the reference gauge by pressing the *arrow* keys.
3. Press *Enter* to confirm entry.
4. Subsequently confirm security prompt by pressing *Enter*.

☑ The pressure value will be stored automatically after confirming the security prompt.
☑ **VACUU·VIEW (extended)** adjusted to atmospheric pressure.

VACUU·VIEW already displays the actual pressure. Normally, only corrections in the range of ± 5 are required.

5.3.3 Adjustment to reference pressure

Adjusting VACUU·VIEW to reference pressure

Adjustment at reference pressure

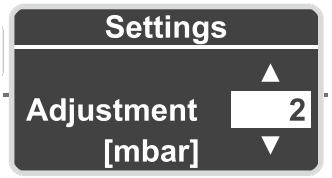
1. Connect the gauge **VACUU·VIEW** to a vacuum pump which pumps to a precise vacuum, e. g., down to 2 mbar.

IMPORTANT!

⇨ If possible, check the accuracy of the ultimate vacuum with a calibrated reference vacuum gauge.

2. Call up the menu *Settings/Adjustment* . The value on the display should be *2* referring to the reached vacuum of the vacuum pump.
3. If necessary, correct the value for reference pressure *2* by pressing the *arrow* keys.

☑



4. Press *Enter* to confirm entry.
5. Subsequently confirm security prompt by pressing *Enter*.

☑ **VACUU·VIEW** adjusted to reference pressure.

The adjustment to a reference pressure should only be carried out when this pressure is accurately and reliably known.

We recommend to perform the adjustment to 0 mbar with a high vacuum pump (ultimate vacuum < 0.1 Torr)
→ see also *5.3.4 Adjustment under vacuum*

5.3.4 Adjustment under vacuum

NOTICE

The alignment at vacuum for VACUU·VIEW extended always occurs to the final measured value of 0 mbar.

The adjustment to an other reference vacuum value is not possible.

⇨ Pump down to an ultimate vacuum as low as possible.

Adjusting VACUU·VIEW (extended) under vacuum

Adjustment under vacuum

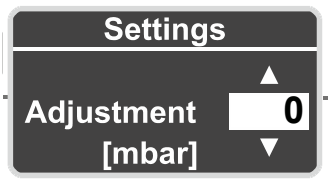
1. Connect the gauge **VACUU·VIEW extended** to a high vacuum pump which pumps to a precise end vacuum lower than < 10^{-3} mbar
   or
   Connect the gauge **VACUU·VIEW** to a high vacuum pump which pumps to a precise end vacuum lower than < 0.1 mbar

IMPORTANT!

⇨ If possible, check the accuracy of the ultimate vacuum with a calibrated reference vacuum gauge.

2. Please wait until the vacuum pump has reached ultimate vacuum and until the gauge has completed warm-up.
3. Call up the menu *Settings/Adjustment*. The value on the display should be *0*.

☑



4. Press *Enter* to confirm entry.
5. Subsequently confirm security prompt by pressing *Enter*.

   ☑ **VACUU·VIEW extended** adjusted under vacuum.

6 Resolving problems

Technical support

⇨ To identify errors and potential remedies, please refer to the trouble-shooting table: ***Fault – Cause – Remedy***

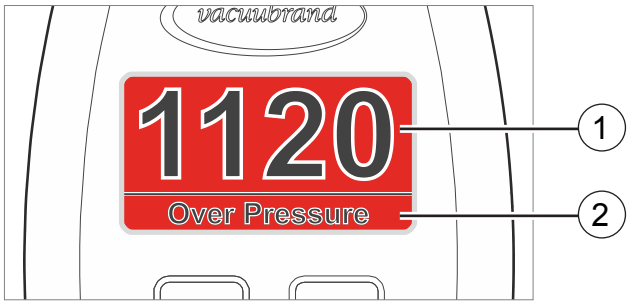
For technical help or if additional help is needed in case of errors, please contact your local supplier or our Service[1] department.

6.1 Error display

For error indication the backlight of the display switches to red.

Example error display

Error display (red)



1	Error display with red backlight
2	Error indication as clear text ▸ Over Pressure – pressure overload ▸ Under Range – measuring fallen below lowest range ▸ Sensor Failure – sensor error

1 -> Phone: +49 9342 808-5660, Fax: +49 9342 808-5555, service@vacuubrand.com

6.2 Fault – Cause – Remedy

Trouble-shooting

Fault	▸ Possible cause	✓ Remedy
Over Pressure	▸ Pressure too high. ▸ Measuring range exceeded.	✓ Vent system or apparatus. ✓ Reduce pressure.
Under Range	▸ Below measuring range (negative pressure reading).	✓ Perform sensor adjustment.
Sensor Failure	▸ Defective sensor.	✓ Send in.
Front glass broken	▸ Incorrect cleaning agent used. ▸ Mechanically damaged.	✓ Send in.
Readings deviate from the reference standard	▸ Sensor measures incorrectly. ▸ Measurement of other gas than air.	✓ Perform sensor adjustment. ✓ Perform sensor adjustment with the gas you want to measure vacuum.
Adjustment ----	▸ A for sensor adjustment inadmissible pressure is reached (no adjustment possible in between pressure range 20 – 700 mbar).	✓ Wait approx. 5 – 10 minutes until the sensor is ready for use. ✓ Perform adjustment at > 700 mbar or < 20 mbar. ✓ For adjustment connect a vacuum pump with precise vacuum and then pump down to the lowest possible pressure range.
Menu Settings/ Adjustment warm up	▸ Sensor warm-up not completed.	✓ Wait approx. 5 – 10 minutes until the sensor is ready for use. ✓ After warm-up, perform sensor adjustment if necessary.

CAUTION

Malfunction because of incorrect repair by the customer.

The gauge is not intended for customer's repair.

⇨ Never open the vacuum gauge.

⇨ If the gauge is defective, please send it to our service department or your local supplier.

6.3 Service menu

6.3.1 Factory settings

Reset to factory settings

Factory settings

1. Call up menu *Service/Factory Settings*.

☑

2. Press *Enter* to start Reset.

☑ Factory settings loaded.

6.3.2 Update

Update

Currently, the update feature is optional and only available on request.

7 Cleaning

Clean the sensor to remove malfunctions that are caused by a polluted sensor. We recommend to clean the sensor before adjustment.

IMPORTANT! This chapter does not contain descriptions for the decontamination of the product. This chapter describes only simple cleaning and care measures.

7.3.1 Surface

Clean surface

Clean surface

⇨ Clean polluted surface with a clean, slightly wetted cloth. To moisten the cloth we recommend water or mild soap.

7.3.2 Sensor

Sensor cleaning

Sensor cleaning

1. Fill a small amount of solvent into the gauge, e. g., fill in cleaning solvent via the flange.
2. Let the solvent react for a few minutes.
3. Pour the solvent.
   ☑ Dissolved substances or discolorations in the solvent are possible.
4. Repeat this procedure until no more pollutants are in the solvent.
5. Air or ventilate the gauge until the internal chamber has dried.
6. Re-adjust the sensor.

8 Appendix

8.1 Technical information

Designs	
Vacuum gauge – *Rough vacuum*	**VACUU·VIEW**
Vacuum gauge – *Fine vacuum*	**VACUU·VIEW** extended

8.1.1 Technical data

Technical data

Ambient conditions		(US)
Working temperature	10–40 °C	50–104°F
Transport- and storage temperature	-10–60 °C	14–140°F
Altitude, max.	3000 m abovesea level	9840 ft above sea level
Relative humidity	30–85 %, non condensing	
Avoid condensation or contamination by dust, liquids or corrosive gases.		

Wall power supply plug		(US)
Input voltage	90–264 VAC	90–264 VAC
Frequency	50–60 Hz	50–60 Hz
Input current, max.	0,8 A	0.8 A
Output voltage, short-circuit-proof	24 VDC	24 VDC
Output current, max.	1,25 A	1.25 A
Cable length, approx.	2 m	79 in.
Dimension	108 mm x 58 mm x 34 mm 4.3 in. x 2.3 in. x 1.4 in.	
Weight	300 g	0.66 lb
Mains plug	AC, changeable: CEE/CH/UK/US/AUS/CN	

Electrical data gauge		(US)
Supply voltage, max.	24 VDC	24 VDC
Capacity, max.	1,3 W	1.3 W
Protection type	IP 54	
Interface	VACUU·BUS®	

Technical data

Vacuum data		
VACUU·VIEW		(US)
Measuring range, absolute	1100–0,1 mbar	825–0.1 Torr
Accuracy of measurement	±1 mbar	0.75 Torr
Temperature coefficient	< ±0,07 mbar/K	< ±0.05 Torr/K
Sensor	internal	
Max. admissible pressure, absolute	1,5 bar	1125 Torr
Max. admissible media temperature (gas) non-explosive atmosphere:		
momentarily	80 °C	176 °F
Continuous operation	40 °C	104 °F
Max. admissible media temperature (gas) Ex atmosphere:		
momentarily	40 °C	104 °F
Continuous operation	40 °C	104 °F

VACUU·VIEW extended *(only deviant parts)*		
Measuring range, absolute	1100–1x 10^{-3} mbar	825–1x 10^{-3} Torr
Accuracy of measurement	±15 % reading inbetween range 0.01–10 mbar/hPa/Torr, ±3 mbar at the range of 10–1100 mbar	

Connections		
Cable (length)	2 m	7 ft
Plug connector	VACUU·BUS®	
Vacuum connection	Small flange KF DN 16	
	Hose nozzle for flexible tube DN 6/10	

Display	
Type	LC display (LCD)
Brightness control	yes
Pressure reading	switchable: mbar, Torr, hPa

Weight and dimensions*		(US)
Weight	190 g	0.4 lb
Dimension	103 mm x 62 mm x 50 mm 4 in. x 2.4 in. x 2 in.	

** without wall power supply*

8.1.2 Wetted materials

Wetted materials

Component	Wetted materials
VACUU·VIEW	
Vacuum sensor	aluminium oxide ceramics
Metering box + small flange	PP
Sealing ring at the sensor	chemicallly resistant fluorelastomer
Hose nozzle	PPS, glass fiber reinforced
O ring (KF 16)	FKM
VACUU·VIEW extended *(only deviant parts)*	
Metering box + small flange	PPS, glass fiber reinforced
Sealing ring at the sensor	FFPM

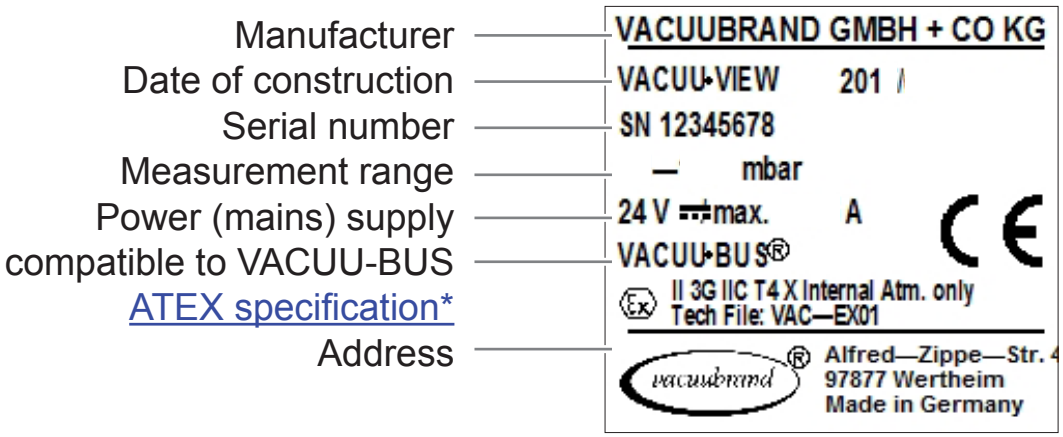
8.1.3 Rating plate

⇨ In case of malfunction, please note type and serial number on the rating plate.

⇨ When contacting our service department, name us product type and serial number. With this information we can offer selective support and advice for your product.

VACUU·VIEW rating plate, in general

Rating plate



** Group and category, marking G (gas), type protection, explosion group, temperature class (additionally see: Approval for ATEX equipment).*

8.2 Order data

Vacuum gauge	Order-N°
VACUU·VIEW, ready-for-use, including wall power supply plug	683220
VACUU·VIEW extended, ready-for-use, including wall power supply plug	683210

Ordering information accessories

Spare parts	Order-N°
Vacuum hose DN 6 mm (l = 1000 mm)	686000
Vacuum hose DN 10 mm (l = 1000 mm)	686002
PTFE hose KF DN 16 (l = 1000 mm)	686031
Stainless steel tubing KF DN 16 (l = 1000 mm)	673336
Fitting for PTFE tube 10/8 mm	
VACUU·BUS/USBupdate kit	683230

Ordering information spare parts

Accessories	Order-N°
VACUU·VIEW	635490
VACUU·VIEW extended	635489
Hose nozzle 10/6 G1/4” with O ring	642474
Wall power supply plug* 30W 24V; with adapters	612090
Y adapter VACUU·BUS	636656
Extension cable VACUU·BUS, 2m	612552
Wall duct VACUU·BUS	636153
Instructions for use	999293

[x] *conversion - example: d_i = 10 mm = DN 10*

Source of supply

International sales offices and specialized trade

Purchase original accessories and spare parts from your specialized distributor or through international sales offices of **VACUUBRAND GMBH + CO KG**.

- ⇨ Information about the complete product range are available in the current product catalog.
- ⇨ For orders, questions about vacuum control and optimal accessories, please contact your specialized distributor or an international sales office of **VACUUBRAND GMBH + CO KG** .

8.3 Service

Service offer and service range

Take advantage of the comprehensive service range of **VACUUBRAND GMBH + CO KG**.

Service in detail

- product guidance and practical solutions,
- fast delivery of spare parts and accessories,
- professional maintenance,
- immediate repairs processing,
- Service on the spot (on request),
- calibration (DAkkS accredited),
- return, disposal.

⇨ Visit our website for further information: www.vacuubrand.com.

Servicing handling

Meet the terms of service

1. Contact your local supplier or our service department.
2. Request a RMA number for your order.
3. Clean the product thoroughly and if necessary decontaminate it professionally.
4. Please fill in this form Health and Safety Clearance completely.

Return (reshipment)

5. Return your product including:
   - RMA-N°,
   - Repair- or service order,
   - Form *Health and Safety Clearance*,
   - short error description.

⇨ Reduce downtime, speed up the service process. Please keep the required data and documents ready when contacting the service department.
- Your order can be quickly and easily processed.
- Hazards can be excluded.
- A short description or photos may help for error location.

8.4 EC Declaration of Conformity

EG-Konformitätserklärung
EC Declaration of Conformity
Déclaration CE de conformité

CE

Hersteller / Manufacturer / Fabricant:
VACUUBRAND GMBH + CO KG · Alfred-Zippe-Str. 4 · 97877 Wertheim · Germany

Hiermit erklärt der Hersteller, dass das Gerät konform ist mit den Bestimmungen der EMV-Richtlinie 2014/30/EU.
Hereby the manufacturer declares that the device is in conformity with the directive 2014/30/EU.
Par la présente, le fabricant déclare, que le dispositif est conforme à la directive 2014/30/UE.

Messgerät / Vacuum gauge / Vacuomètre
Typ / Type / Type: **VACUU·VIEW** / **VACUU·VIEW extended**
Artikelnummer / Order number / Numéro d'article: 683210, 683220, 635490, 635489
Seriennummer / Serial number / Numéro de série: Siehe Typenschild / See rating plate / Voir plaque signalétique

Angewandte harmonisierte Normen / Harmonized standards applied / Normes harmonisées utilisées: DIN EN 12100:2011, EN 61326-1:2006

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen / Person authorised to compile the technical file / Personne autorisée à constituer le dossier technique:
Dr. J. Dirscherl · VACUUBRAND GMBH + CO KG · Alfred-Zippe-Str. 4 · 97877 Wertheim · Germany

Ort, Datum / place, date / lieu, date: Wertheim, 26.03.2015

(Dr. F. Gitmans)	ppa. (Dr. J. Dirscherl)
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