

EN

G 1111 / G 1114

Vacuum meter | barometer



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1 About this documentation

1.1 Purpose of the document

- This document is intended as a quick reference option.
- It does not replace the operating manual.
- For this reason, read the operating manual before operating the product for the first time.

1.2 Legal notices

This document is entrusted to the recipient for personal use only. Any impermissible transfer, duplication, translation into other languages or excerpts from this operating manual are prohibited.

The manufacturer assumes no liability for print errors.

1.3 Further information

Software version of the product:

- V1.1 or later

Link to the complete operating manual:

<http://www.greisinger.de>

For the exact product name, refer to the type plate on the rear side of the product.

2 Safety

2.1 Explanation of safety symbols

DANGER

This symbol warns of imminent danger, which can result in death, severe bodily injury, or severe property damage in case of non-observance.

CAUTION

This symbol warns of potential dangers or harmful situations, which can cause damage to the device or to the environment in case of non-observance.

NOTE

This symbol indicates processes, which can have a direct influence on operation or can trigger an unforeseen reaction in case of non-observance.

2.2 Foreseeable misuse

The fault-free function and operational safety of the product can only be guaranteed if applicable safety precautions and the device-specific safety instructions for this document are observed.

If these notices are disregarded, personal injury or death, as well as property damage can occur.

DANGER

Incorrect area of application!

In order to prevent erratic behaviour of the product, personal injury and property damage, the product must be used exclusively as described in the chapter Description in the operating manual.

- The product is not suitable for use in explosion-prone areas!
- The product must not be used for diagnostic or other medical purposes on patients!
- For measurements requiring devices that are subject to authorisation or special approvals, this product is not a substitute for such products and can only be used as an aid in preparatory or comparison measurements!

2.3 Safety instructions

NOTE

This product does not belong in children's hands!

2.4 Intended use

The device measures the absolute pressure in the air, clean water or in non-corrosive/non-ionising gases. A direct measurement of the environmental pressure can take place or the measurement pressure is taken with a suitable hose connected to the port. Relative measurements can also be conducted with the integrated special function *rel.*

Applications include:

G 1111

Barometric measurements (e.g. weather)

Vacuum measurements (down to 0.0 hPa abs., negative pressure via hose or even with complete device evacuation)

G 1114

Barometric measurements (e.g. weather)

Vacuum measurements (down to 0 hPa abs., negative pressure via hose or even with complete device evacuation)

Pneumatic measurements (up to 14000 hPa abs. or 14 bar abs.)

The pressure connection is made at the supplied interchangeable pressure connection ports with suitable hoses - 4 different connection options are available as standard, many other connection options can be used easily and reliably with G 1/8 adapters.

The device must only be used under the conditions and for the purposes for which it was designed.

It must be handled with care and used according to the technical data (do not throw, strike, etc.). Suitable measures must be used to protect the pressure connections and be protected from dirt.

NOTE

Complete evacuation see Vacuum measurements [▶ 13].

3 The product at a glance

3.1 The G 1100 barometer series



LCD Display



Front view



Connection variants



Top view

3.2 Display elements

Display



Battery indicator

Evaluation of the battery status



Unit display

Display of the units or Min/Max/Hold information text



Main display

Measurement of the current pressure or value for min/max/hold



Auxiliary display

Measurement of the current pressure in Min/Max/Hold mode

3.3 Operating elements



On / Off button

Press briefly	Switch on the product Activate / deactivate lighting
Long press	Switch off the product Reject changes in a menu



Up / Down button

Press briefly	Display of the min/max value Change value of the selected parameter
Long press	Reset the min/max value of the current measurement
Both simultaneously	Rotate display, overhead display

**Function key**

Press briefly	Freeze measurement (Hold)
	Return to measurement display
	Call up next parameter
Long press, 2s	Start menu configuration, CONF appears in the display
	Close menu, changes are saved
Long press, 4s	Depending on the selected special function: Activation of the Tare function nLL or rapid measurement with mean value RVr

3.4 Connections

Universal connection	Interchangeable pressure connection via G1/8" thread.
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4 Operation

4.1 Opening the configuration menu

1. Press the *Function key* for 2 seconds to open the **Configuration** menu.
2. Conf appears in the display. Release the *Function key*.

Parameter	Values	Meaning
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Display unit

Unit

hPa

mbar

bar (G 1114)

Psi

mmHg

Activatable special functions

null Tare function available

AVR 0:02 / AVR 0:05 / AVR 0:10 Rapid measurement with mean value over 2 s / 5 s / 10 s activatable

Measuring rate

rRtE Selection of the measurement speed

SLo Slow

FRSt Fast

Nautical norm correction

SEr.L

no Inactive, display measured air pressure directly

YES Active, display air pressure compensated to sea level

RtL *-500 .. 9000* Height above sea level in m for correction

Shut-off time

PoFF

oFF No automatic shut-off

0:15 0:30 1:00 4:00
12:00 Automatic shut-off after a selected time in hours and minutes, during which no buttons have been pressed

Backlight**L** EE

- oFF** Backlight deactivated
- 0:15 0:30 1:00 4:00** Automatic shut-off of the backlight after a selected time in minutes and seconds, during which no buttons have been pressed
- on** No automatic shut off of the backlight

Factory settings**l** n t

- no** Use current configuration
- YES** Reset product to factory settings. **l** n t **donE** appears in the display

4.2 Open the adjustment menu

For information refer to the operating manual!

5 Measurement Basics

5.1 Vacuum measurements

The device is especially suitable to measure rough vacuum via the pressure port very fast. But if the complete device is evacuated the following has to be considered:

CAUTION

Damage possible by fast complete evacuation!

Due to the water tight construction a complete evacuation of the device may degrade water protection. The keypad/display screen may break loose. If the device should still be used for this application, the following options are available:

- Remove the o-ring of the battery compartment! The Instrument then is no more water protected! Changing battery.
- Specialized variants G 1111-VAC!

5.2 Special functions

With the special functions that can be selected via the *Configuration menu*, the device can be optimised for special measuring tasks. After it is switched on, the device starts up in standard measuring mode, the relevant special function is started by pressing and holding the *Function key* for 4 s.

⚠ CAUTION**Air pressure at port variant UT!**

With higher pressures greater than 1 bar, the hoses must be secured to prevent unintended loosening. Suitable GDZ hose clamps are used for this purpose.

- 6x1 mm PVC GDZ-01. Up to 5 bar rel., vacuum-suitable!
- 6x1 mm PE GDZ-02. Up to 10 bar rel., vacuum-suitable!
- 6x1 mm PUR GDZ-03. Up to 9 bar rel., vacuum-suitable!

**5.2.1 μL Tare function**

The special function *Func μL* has been selected in the configuration menu.

The display can be zeroed by pressing the *Function key* for 4 s. If the tare function is activated, $\mu\Delta\Delta$ blinks in the lower display. The tare function can be reset by pressing the *Function key* again for 4 s.

NOTE

The tare function is independent of the zero point correction accessible via the settings menu.

5.2.2 $RVr\ 0:02 / RVr\ 0:05 / RVr\ 0:10$

Fast measurement with mean value over 2 s / 5 s / 10 s

Mean value mode for measurement of heavily fluctuating pressures.

In the *Configuration mode*, a special function $RVr\ 0:02$, $RVr\ 0:05$ or $RVr\ 0:10$ has been selected.

By pressing and holding the *Function key* for 4 s. the measurement with mean value can be activated.

The different mean value times of 2, 5 or 10 seconds can be selected depending on the requirement.

The first parameter is shown in the auxiliary display.

If the Tare function is activated when called up, this special function RVr can be reset by pressing and holding the *Function key* for 4 s. In order to reactivate the Tare, the special function must be switched in the configuration menu.

6 Operation and maintenance

6.1 Operating and maintenance notices

NOTE

Pressure connections must be protected from soiling.

6.2 Battery

6.2.1 Battery indicator

For additional information, refer to the operating manual!

6.2.2 Changing battery

Only use new, high-quality and suitable alkaline batteries!

For additional information, refer to the operating manual!



7 Error and system messages

Display	Meaning	Possible causes	Remedy
----	Calculation not possible	Measurement data acquisition is running	Waiting for data collection
No display, unclear characters or no response when buttons are pressed	Battery depleted System error Product is defective	Battery depleted Error in the product Product is defective	Replace battery Send in for repair
bAt	Battery depleted	Battery depleted	Replace battery
bAt Lo	Battery depleted	Battery depleted	Replace battery
Err.1	Measuring range exceeded	Measurement too high Product is defective	Stay within allowable measurement range Send in for repair
Err.2	Measuring range is undercut	Measurement too low Product is defective	Stay within allowable measurement range Send in for repair
595 Err	System error	Error in the product	Switch product on/off Replace batteries Send in for repair

8 Technical data

G 1111

Measuring range	0.0 .. 1700.0 hPa (mbar) abs. 0.00 .. 25.00 PSI abs. 0.0 .. 1300 mmHg (Torr) abs.	
Accuracy	Typ.: ± 2 hPa (at T: 5 .. 30 °C) Max.: ± 1.25 % FSS	
Measuring cycle	FR5t: approx. 25 measurements per second 5L: approx. 2.5 measurements per second	
Overload	3000 hPa abs.	
Pressure connection	1 hose connection, interchangeable with G1/8 universal port	
Display	3-line segment LCD, additional symbols, illuminated (adjustable white, permanent illumination)	
Standard function	Min/Max/Hold Auto-power-Off function / if activated, switches the product off automatically	
Additional functions	nLL: Tare function RVr: Averaging over 2 s / 5 s / 10 s	
Calibration	Zero point and gradient adjustment	
Housing	Break-proof ABS housing	
	Protection rating	IP67
	Dimensions L*W*H [mm] and weight	108 * 54 * 28 mm without pressure connector 140 g, incl. battery

Operating conditions	-20 to 50 °C; 0 to 95 % r.h. (short-term condensation possible)	
Storage temperature	-20 to 70 °C	
Current supply	2*AA battery (included in the scope of delivery)	
	Current requirement/ Battery life	approx. 1 mA (slow measurement SLO) Operating time approx. 3000 h
	Battery indicator	4-stage battery status indicator, Charge indicator for low charge level: "BAT LO"
Auto-power-OFF function	The device switches off automatically if this is activated	
Directives and standards	<p>The devices conform to the following Directives of the Council for the harmonisation of legal regulations of the Member States:</p> <p>2014/30/EU EMC Directive 2011/65/EU RoHS</p> <p>Applied harmonised standards:</p> <p>EN 61326-1:2013 Emission limits: Class B Immunity according to Table 1 Additional error: < 1 % FS</p> <p>EN 50581:2012</p> <p>The device is intended for mobile use and/or stationary operation in the scope of the specified operating conditions without further limitations.</p>	

G 1114

Measuring range	0 .. 14000 hPa (mbar) abs. 0.00 .. 199.99 PSI abs. 0 .. 10500 mmHg (Torr) abs.	
Accuracy	Typ.: ± 0.02 % FSS ± 0.1 % of value (@ 25 °C) Max.: ± 0.1 % FSS ± 0.5 % of value	
Measuring cycle	FR5t: approx. 25 measurements per second 5Lo: approx. 2.5 measurements per second	
Overload	20000 hPa abs.	
Pressure connection	1 hose connection, interchangeable with G1/8 universal port	
Display	3-line segment LCD, additional symbols, illuminated (adjustable white, permanent illumination)	
Standard function	Min/Max/Hold Auto-power-Off function / if activated, switches the product off automatically	
Additional functions	nLL: Tare function AVr: Averaging over 2 s / 5 s / 10 s	
Calibration	Zero point and gradient adjustment	
Housing	Break-proof ABS housing	
	Protection rating	IP67
	Dimensions L*W*H [mm] and weight	108 * 54 * 28 mm without Pressure connector 140 g, incl. battery
Operating conditions	-20 to 50 °C; 0 to 95 % r.h. (short-term condensation possible)	

Storage temperature	-20 to 70 °C	
Current supply	2*AA battery (included in the scope of delivery)	
	Current requirement/ Battery life	approx. 0.6 mA (slow measurement SLO) Operating time approx. 5000 h
	Battery indicator	4-stage battery status indicator, Charge indicator for low charge level: "BAT LO"
Auto-power-OFF function	The device switches off automatically if this is activated	
Directives and standards	<p>The devices conform to the following Directives of the Council for the harmonisation of legal regulations of the Member States:</p> <p>2014/30/EU EMC Directive 2011/65/EU RoHS</p> <p>Applied harmonised standards:</p> <p>EN 61326-1:2013 Emission limits: Class B Immunity according to Table 1 Additional error: < 1 % FS</p> <p>EN 50581:2012</p> <p>The device is intended for mobile use and/or stationary operation in the scope of the specified operating conditions without further limitations.</p>	

9 Service

9.1 Manufacturer

If you have any questions, please do not hesitate to contact us:

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