

OPERATING INSTRUCTIONS

Digital Pressure Gauge 1700 kPa

27-1620

<p>ELE International Chartmoor Road, Chartwell Business Park Leighton Buzzard, Bedfordshire, LU7 4WG England phone: +44 (0) 1525 249200 fax: +44 (0) 1525 249249 email: ele@eleint.co.uk http://www.ele.com ELE International, a division of Hach Lange Ltd.</p>	<p>Distributor:</p>	<p>ELE International Soiltest Product Division PO Box 389, Loveland, CO 80539 USA phone: +1 (800) 323 1242 fax: +1 (970) 663 9781 email: soiltest@eleusa.com http://www.eleusa.com</p>
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1 Description/Specification

ELE Digital gauge with Max.-/Min.-Display

General accuracy: Better than 1% FS typ.

The pressure device has two operating keys. The left key (SELECT) serves to select the functions and the pressure units. The right key (ENTER) activates the selected function or pressure unit. The right key is also used to switch between the MAX.- and MIN.-value.

2 Installation

Important Note

The gauge is supplied with the battery not installed. This is to make sure that the gauge is not activated during transit and the battery life wasted.

To install the battery, carefully remove the back cover using a small coin and then insert the battery between the two contacts with the + SIGN FACING YOU. Replace the back cover making sure that the O-ring remains imbedded in the cover. (It is best to replace the cover with the LCD screen facing upper most to keep the O-ring in place.) After battery insertion it takes approximately one minute before the gauge can be used.

It is important that the pressure gauge is connected correctly to the pressure line required to be measured on the triaxial cell. Do not tighten the measuring device using the body of the gauge.

If the gauge is to be used for **Pore pressure** or **Back Pressure** measurement then it is important to remove air trapped inside the pressure input port. This can be done by holding the device with the pressure entry hole facing upwards. Then, using a small syringe filled with de-aired water, gently jet the water into the entry hole (Note: do not push any sharp object into the hole as this might damage internal components of the gauge). When the gauge is de-aired connect it into its location in the pore pressure line and make sure the pore pressure line is then irrigated completely with de-aired water before use.

If the gauge is being used just to measure confining pressure then the de-airing process is not necessary.

Once the test has been completed it is recommended to leave the line filled with water as then air will not gain entry into the gauge.

3 Operation

Turn-on: Pressing the SELECT key turns the instrument on. The instrument subsequently displays the software version (year/week), the full-scale pressure range, the actual pressure (top display) and the last measured MAX.-value (bottom display).

The instrument has the following functions:

RESET	:	Max.-/Min.-value are set to the actual pressure
OFF	:	Turns off the instrument
MANO	:	Releases the following functions:
ZERO sET	:	Sets a new Zero reference
ZERO rES	:	Sets the Zero to factory setting
CONT on	:	Deactivates the automatic turn-off function

CONT off : Activates the automatic turn-off function (the instrument turns off 15 minutes after the last key function) followed by the unit selection: **bar, mbar/hPa, kPa, MPa, PSI**

Example: Setting a new pressure unit (kPa)

- Turn on the instrument by shortly pressing the SELECT-key.
- Wait for the instrument's measuring mode (approx. 3 seconds).
- Press the SELECT-key 3 times: **MANO** appears.
- Press ENTER: **ZERO sET** appears.
- Press SELECT: **ZERO rES** appears.
- Press SELECT: **CONT on** or **CONT off** appears depending on what it is set to.
- Press SELECT: **BAR** appears.
- Press SELECT: **mbar/hPa** appears.
- Press SELECT: **kPa** appears.
- Press ENTER: The new pressure unit is set. The instrument returns to the measuring mode.

Display of the minimum pressure value

When in the measuring mode (Display: Actual Pressure and Max.-value), you may display the Min.-value for 5 seconds by shortly pressing the ENTER-key.

Notes

- 1) The functions and units can also be called up by keeping the SELECT-key depressed. Releasing the key enables the displayed function or unit to be activated with the ENTER-key.
- 2) If the selected function or unit is not activated within 5 seconds with the ENTER-key, the pressure device returns to the measuring mode without changing any settings.
- 3) Turning the pressure device on and off does not influence any of the previous settings.
- 4) If the **CONT on** function is activated, it is indicated with a flashing sign on the display.
- 5) If a pressure cannot be represented on the display, **OFL** (overflow) or **UFL** (underflow) appears on the display.
- 6) If the actual pressure goes beyond the measuring range, the last valid pressure value starts flashing on the display.

Battery Change / Battery Life

When the battery starts weakening, a low battery warning (BAT LOW) will appear in the upper left corner of the display.

Battery change: Open the battery compartment and change the battery (type CR 2430).

The battery life is 1400 hours in normal measuring mode.

Note. It is recommended to initiate the auto shut down process by setting the device to **CONT off**. This will prolong the battery life.

4 Maintenance

It is recommended to clean the device only with a damp cloth and not to try to clean the LCD screen with any abrasive material as this will render the screen useless.