ManoConfig 4.03 Instruction Manual
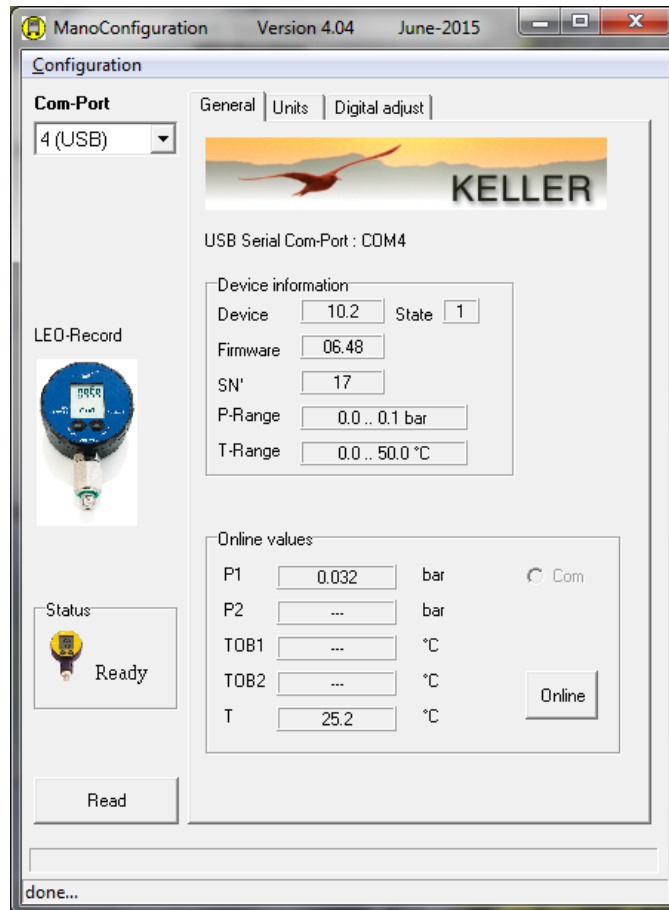
Contents

Installing the software

ManoConfig

You will find the ManoConfig PC software on the software CD supplied with the interface converter. (You can also download the software free of charge from www.keller-druck.com). Install the software on your computer with administrator rights by right-clicking on the setup file and choosing "Run as administrator".

Interface converters

RS232 interface converters (K-102, K-102I, K-103A, K-107)
You do not need to install any driver files for the RS232 interface converters. The manometer is supplied with power by its internal battery.

USB interface converters K-114A / K-114B
You must install driver files on your computer for the USB interface converters. You will find the "Driver K-104/K-114" driver software on the software CD supplied with the interface converter.
(You can also download the software free of charge from www.keller-druck.com). Install the software on your computer with administrator rights by right-clicking on the setup file and choosing "Run as administrator".
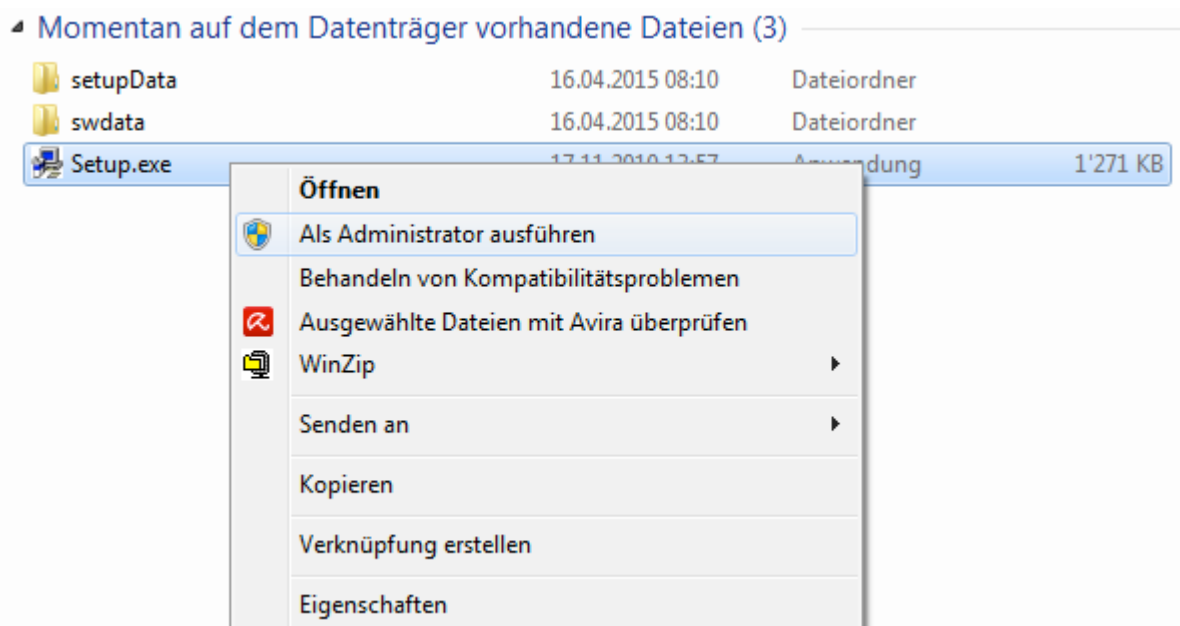
Description of the software

General information

The ManoConfig program is compatible with all types of KELLER manometers and allows end customers to configure the devices.

ManoConfig functions:

- Displaying online measurements
- Setting the time period for the automatic powerdown function
- Setting the pressure unit used after the battery is changed (startup unit)
- Activating / deactivating pressure units
- Entering user-defined pressure units
- Returning the device to the factory settings
- Calibrating the manometer

Reading the device / Current measurements (live monitoring)

- Connect the manometer to the interface converter (with a cable).

- Switch on the manometer.

- Select the COM port that you want to use (1).

- Click on "Read" (2).

Measurements are imported *once* when the device is read and displayed in the "Online values" field. To access the current measurements (live monitoring):

- Click on "Online" (3)
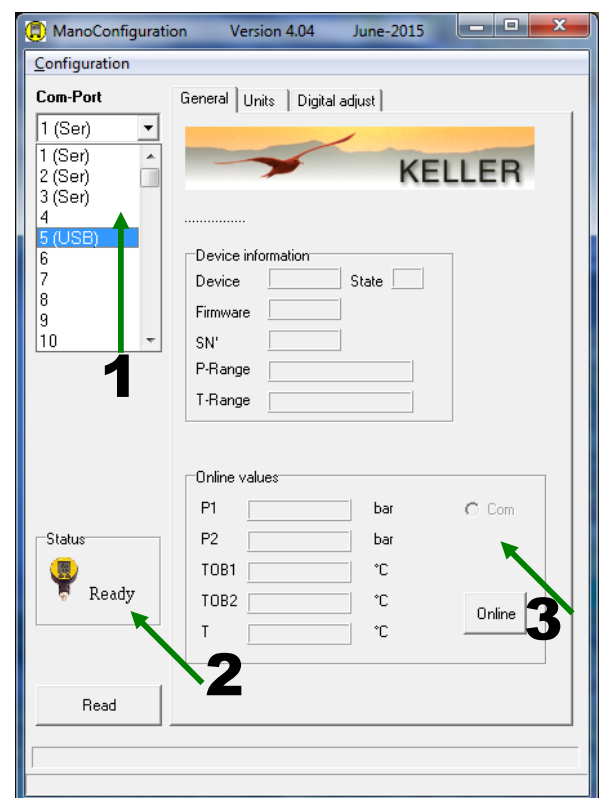
Startup unit / Powerdown function

Startup unit:
This is the pressure unit that the device uses when it is restarted after the battery has been changed.
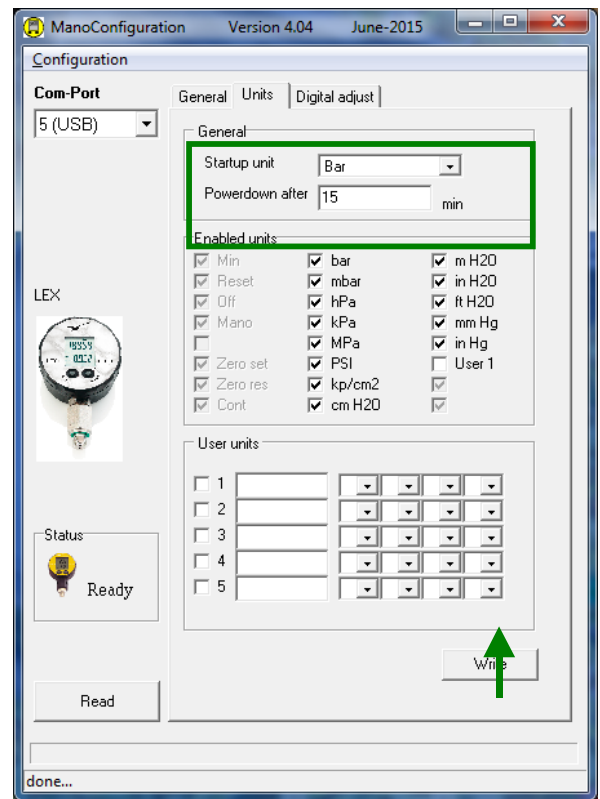
Powerdown after:
The device powers down automatically after this period of time (following the last key press or communication via the interface).

The exception is:
When the "Continuous" (cont.) function is activated.

→ Send the changes to the device by clicking on "Write".

Activating / deactivating pressure units

You can activate or deactivate pressure units by clicking on them. Only the activated units can be selected by pressing the keys on the manometer.

You select the unit you want using the keypad on the manometer. The measurement appears on the display converted into the pressure unit that you have selected.

→ Send the changes to the device by clicking on "Write".
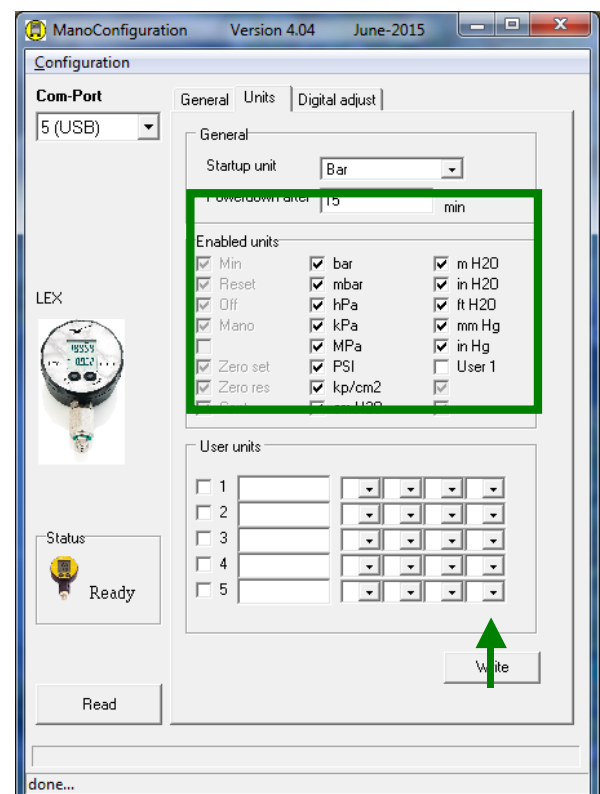
User-defined pressure units

The device can be configured with up to 5 user-defined units with accompanying factors.

In order to use these units, you must select the "User 1" unit and the corresponding field in "User units".

The pressure measurement in bar will be converted to the unit using the factor that you have entered.
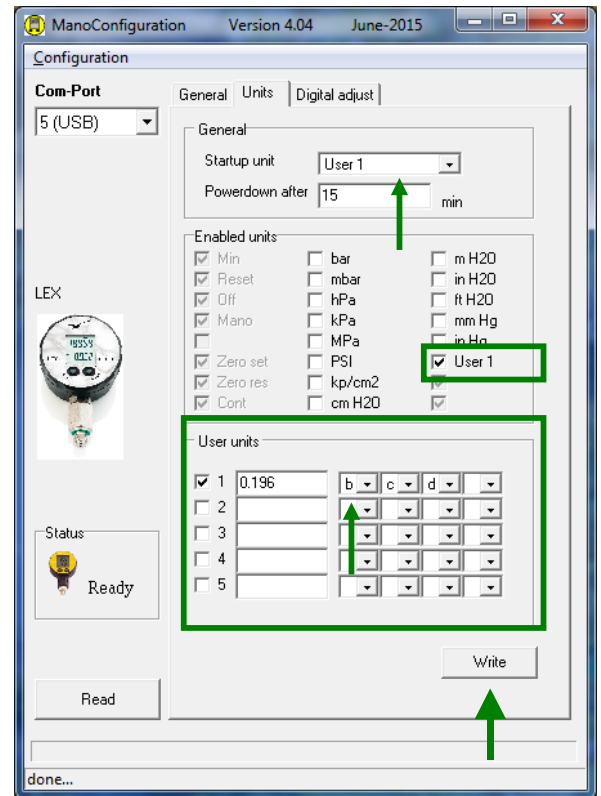Display = pressure in bar * factor

You can describe the user-defined unit in 4 character fields. The name of the user-defined unit appears on the manometer display alternately with the measurement.

You select the user-defined unit you want using the keypad on the manometer. If you want the device to use this unit automatically after the battery has been changed, you must select "User 1" as the startup unit.

→ Send the changes to the device by clicking on "Write".

Note:
If you leave all 4 character fields for a user-defined unit empty, only the calculated measurement will be displayed, but not a unit. (This can be useful if the unit is already printed on the front film.)

Display of the user-defined unit "bcd"

Display of the pressure in bar converted to a user-defined unit

Returning the calibration to the factory settings

The "Factorysettings" function Returns the calibration factors and the manometer's zero point, which was set using the button, to the factory settings.

The following user-defined settings:

- Startup unit
- Powerdown function
- Unit selection
- User-defined units

Remain unchanged.
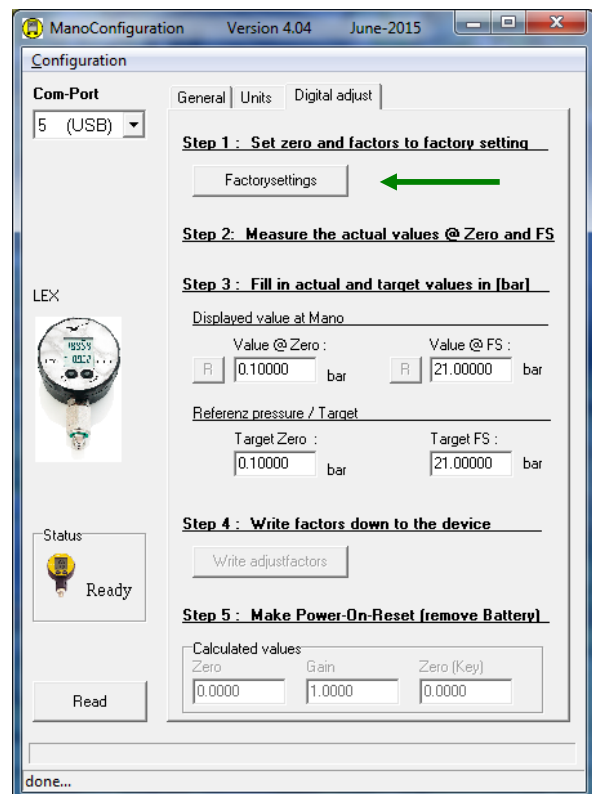
Calibrating the device

You can calibrate the device yourself. This usually involves selecting and measuring the zero point and the full scale.

The fields for calibrating the device can only be accessed after you have clicked on "Factorysettings".

You can use any pressure measurement you want to calibrate the device. In order to achieve reliable results, we recommend using the zero point and full scale for calibration.


Note:
To recalibrate the device, we recommend using a pressure reference (calibrator) with a higher level of accuracy than the manometer that is being
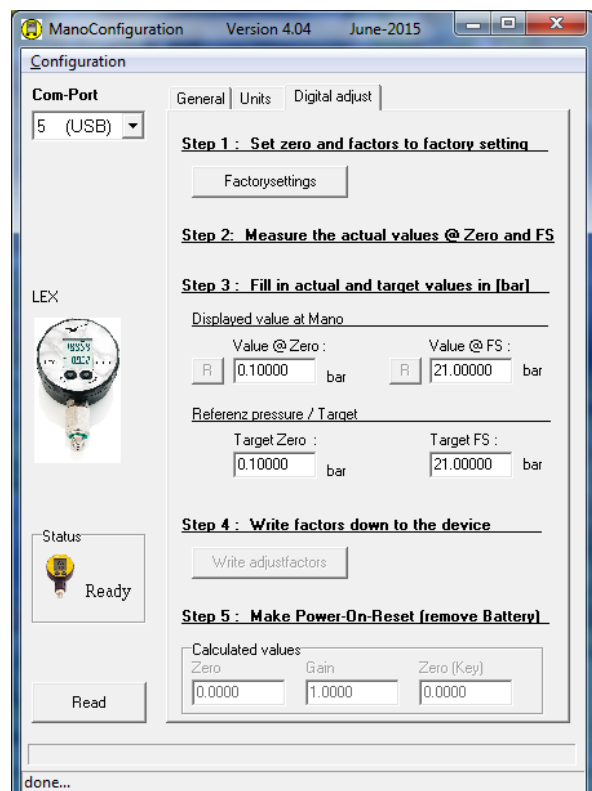
The calibration process

1. Read the device by clicking on "Read".
2. Return the device to the factory settings by clicking on "Factorysettings".
3. Set the zero point reference pressure.
4. Enter the zero point reference pressure ("Target Zero").
5. Click on "R" under "Value@Zero"*
   → The pressure measured by the manometer will automatically be entered in the field.*
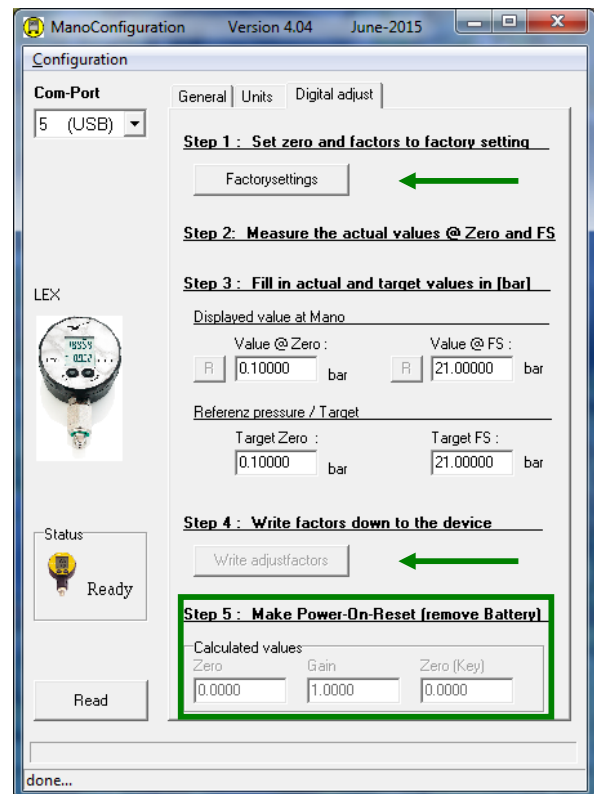
6. Set the full scale reference pressure.
7. Enter the full scale reference pressure ("Target FS").
8. Click on "R" under "Value@FS"*.
   → The pressure measured by the manometer will automatically be entered in the field.*
9. Click on "Write adjustfactors".

   *   You can also enter the value on the manometer manually in the "Target Zero" or "Target FS" fields.

The "Gain" and "Zero" correction factors will be calculated and sent to the device. The correction factors are displayed in the "Calculated values" fields. -* The manometer has now been calibrated.

Briefly disconnect the manometer battery so that the changes to the correction factors take effect.

Note: After completing the calibration process, check the accuracy of the device by measuring different pressure points.

Connecting the device to a computer

KELLER manometers must not be connected to a computer in potentially explosive atmospheres where there is gas or dust.
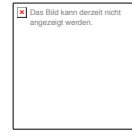
Outside of EX zones, only the intrinsically safe LEX 1 Ei and LEO Record Ei products can be connected to a computer.

LEO 1

Interface converter *K-114A* or *K-102* and *cable option 4* are needed.
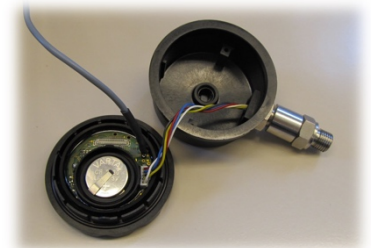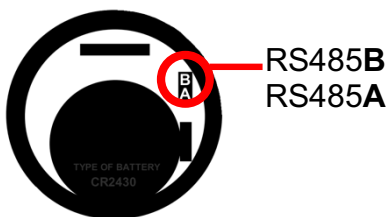

K-114A

K-102

Cable option 4

Open the device by turning the front part beyond the stop until it comes away from the housing. Plug cable option 4 into the connector pin (next to the battery compartment).

If you plug it into the wrong connection, the device will not be able to communicate, but it will not be damaged.

RS485**B**
RS485**A**

LEO 2 / ECO 2

Interface converter *K-114A* or *K-102* and *cable option 4* are needed.

K-114A

K-102

Cable option 4

Remove the battery compartment and carefully lift up the back plate with a small screwdriver. Plug cable option 4 into the connector pin (next to the battery compartment).

If you plug it into the wrong connection, the device will not be able to communicate, but it will not be damaged.
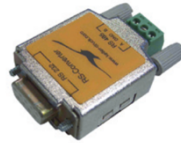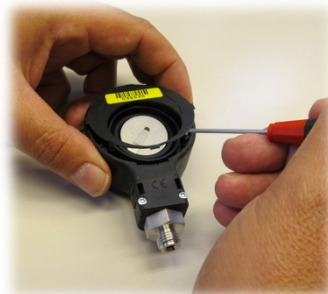

RS485**B**
RS485**A**

LEX 1, LEO Record

Interface converter *K-114A* or *K-103A* is needed*.*

K-114A

K-103

Connect the interface plug to the connector on the back of the manometer.

LEO 3

Interface converter *K-114B* or *K-107 (with a male plug)* is needed*.*

K-114B

K-107

Connect the interface plug to the connector on the back of the manometer.

LEO 5

A USB cable (USB mini plug) is needed.

Connect the interface plug to the USB mini plug on the manometer.

You must install driver files (Driver Manometer) on your computer.

LEO 5