



# Sauter GmbH

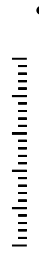
Ziegelei 1  
D-72336 Balingen  
e-mail: [info@kern-sohn.com](mailto:info@kern-sohn.com)

Phone : +49-[0]7433- 9933-0  
Fax: +49-[0]7433-9933-149  
Internet: [www.sauter.eu](http://www.sauter.eu)

## Instruction manual digital force gauge

### SAUTER FK

Version 2.0  
01/2020  
GB



PROFESSIONAL MEASURING



# SAUTER FK

V. 2.0 01/2020

## Instruction manual digital force gauge

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Congratulations on the purchase of a digital force measuring device with internal measuring cell from SAUTER. We hope you will enjoy your quality measuring device with a wide range of functions. Please do not hesitate to contact us if you have any questions, requests or suggestions.

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## 1 Introduction

Please read these operating instructions carefully before commissioning, even if you already have experience with SAUTER measuring instruments.

After receipt of the force gauge, it should be checked in advance that no transport damage has occurred, that the outer packaging, the plastic housing, other parts or even the gauge itself have not been damaged. If any damage is evident, please notify SAUTER GmbH immediately.

SAUTER offers optional software and accessories to make the measuring instrument more versatile in use. Please ask SAUTER or the SAUTER supplier or visit our website [www.sauter.eu](http://www.sauter.eu).

## 2 Scope of delivery

- SAUTER FK
- Power supply
- Delivered in stable cardboard packaging
- 5 pieces M3x8 screws for mounting on SAUTER test benches
- Standard attachments as standard, as shown  
extension bar: 90mm



### 3 Technical data

#### 3.1 Technical data FK with internal loadcell up to 500N

Measuring device	FK 10	FK 25	FK 50	FK 100	FK 250	FK 500	FK 1k
Capacity	10N	25N	50N	100N	250N	500N	1000N
Work temperature	10°C to 30°C						
Relative air humidity	15% to 80% Humidity						
Weight	Approx. 720g						
Dimensions Display unit (LxWxH)	195x82x35mm						
Thread	M8						



## 4 Battery operation / power supply

Optionally available in mains or battery operation

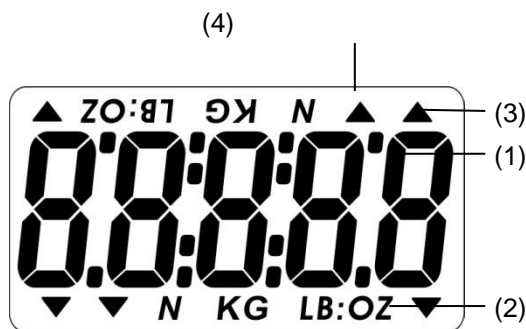
Mains operation:

- Connection via mains adapter to mains power supply

Battery operation for mobile use:

- 6x AAA batteries, included in delivery
- not rechargeable! Batteries must be replaced if necessary

## 5 Display indication



Position	Description
1	Measurement result
2	Display unit of the measurement result
3	Measuring direction (push/pull)
4	Display of the PEAK (peak measured value) mode

## 6 Control buttons

ON / OFF:



- On / Off button (press button for approx. 1 s)

MAX:



- Change to PEAK (peak) mode

UNIT (units of measurement):



- Press the key briefly: Selection between N, kg, lb and oz

ZERO: Reset



Assignment with three functions

- Zeroing the display (tare function)
- Zeroing of the peak value (Peak)
- Storing a setting (in SET mode)

## 7 Inverting the display by 180°

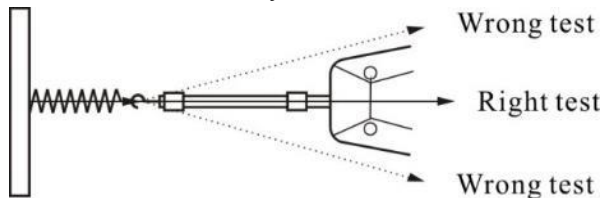
If the device itself is rotated by 180°, the display also rotates automatically.

## 8 Warnings

Incorrectly performed force measurements can lead to serious injury to persons and damage to objects and must therefore only be performed by trained and experienced personnel.

In particular, it must be avoided that forces act on the purchased measuring instrument that exceed the maximum load (Max) of the instrument or that do not act axially on the instrument via the load cell; or if high impulse forces act on the measuring instrument.

Avoid twisting the loadcell, otherwise it could be damaged and the measuring accuracy will decrease in any case.



### **Inappropriate use**

Do not use the measuring instrument for medical weighing.

If small quantities of the material to be measured are removed or added, incorrect measurement results may be displayed due to the "stability compensation" in the measuring instrument! (Example: Slow flow of liquids out of a container suspended from the measuring cell).

Do not apply a continuous load to measuring instruments with external measuring cell.

### **Overloads**

Please prevent the measuring instrument from being overloaded beyond the specified maximum load (Max), minus any tare load that may already be present. This can damage the measuring instrument (danger of breakage!).

### ***Attention:***

- Make sure that there are never people or objects under the load, as they could be injured or damaged!
- The measuring instrument is not suitable for weighing people, do not use it as an infant measuring instrument!
- The measuring device does not comply with the German Medical Devices Act (MPG).
- Never operate the measuring instrument in rooms where there is a risk of explosion. The standard version is not explosion-proof.

- The design of the measuring instrument must not be changed. This can lead to incorrect measurement results, safety-related defects and the destruction of the measuring device.
- The measuring instrument may only be operated or maintained by trained personnel.
- The measuring instrument may only be used in accordance with the described specifications.
- SAUTER must give written approval for any other areas of use / applications.

### **Warranty**

Warranty expires in case of

- not following our guidelines in the operating instructions
- use outside the described field of application
- Modifying or opening the device
- mechanical damage and damage caused by agents such as liquids or liquids have been caused
- improper assembly or electrical installation
- Overloading the measuring cell

### **Test equipment monitoring**

As part of quality assurance, the metrological characteristics of the measuring instrument and any test weight that may be present must be checked at regular intervals. The user responsible must define a suitable interval for this purpose as well as the type and scope of this inspection.

Information on the monitoring of measuring instruments and the necessary test weights is available on the SAUTER homepage ([www.sauter.eu](http://www.sauter.eu)). The weights and measuring instruments can be checked and adjusted quickly and at favourable prices in KERN's accredited DAkkS laboratory (traceability to the national standard).

### **Note:**

To view the CE declaration, please click on the following link:

<https://www.kern-sohn.com/shop/de/DOWNLOADS/>

## 9 Adjustment instruction FK

1. Stable external working conditions shall be provided.

A short warm-up phase of the device of approx. 1 minute is recommended for stabilisation.

The FK can be switched on by pressing the "**ON/OFF**" key. The unit is in a hanging position.



2. When the display shows "0", press the "**UNIT**" button and the "**ZERO**" button simultaneously until "**CAL**" appears on the display.



3. After a few seconds the display will show the required **calibration weight**, e.g. 5.00kg for the FK 50 or 10.00kg for the FK 100.





4. The corresponding weight is now attached to the hook. The appliance **must be held still while the weight is attached**; avoid shaking. Tip: hold the device with both hands while both elbows are resting on a table or attach it to a solid object (test bench).



5. This position is held until "**F**" appears on the display. Then the weight can be removed and the adjustment is completed. However, if "**E**" appears on the display - repeat steps **1.** to **5.** until "**F**" confirms successful adjustment.

# 10 Technical drawings

Dimensions in mm

