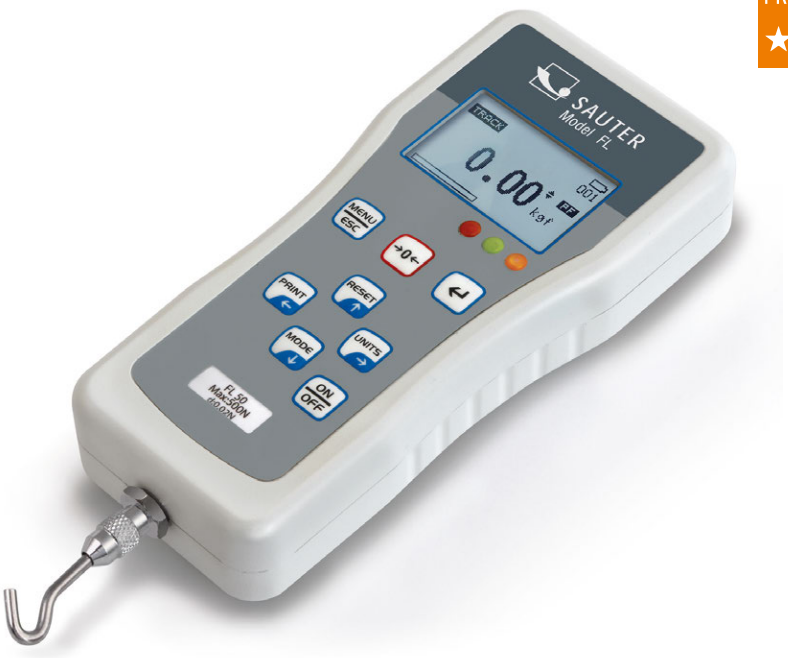
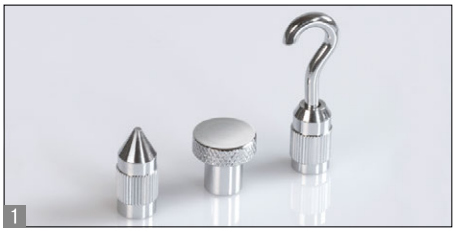
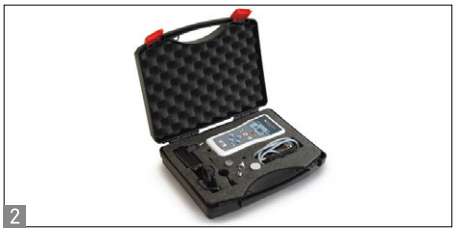
Digital force gauge SAUTER FL-S

PREMIUM ★★★




1


2

Universal digital force gauge with graphic-assisted display and integrated measuring cell

Features

- **Turnable display** with backlight
- **Peak-Hold function** to capture peaks (measurement result will be “frozen” for a short time) or **Track function** mode for a continuous measurement indication
- **Metal housing** for durable usage in harsh environmental conditions
- Can be mounted on all SAUTER test stands up to 10 kN
- **Capacity display:** A bar lights up to show how much of the measuring range is still available
- **Measuring with tolerance range (limit-setting function):** Upper and lower limit adjustable, in pull and push direction. The process is supported by an visual signal.
- **Internal memory** for up to 500 measurement values
- **Continuous analogue output:** Linear voltage signal in dependence to the load (-2 to +2 V)
- **Data interface USB** standard
- **Data interface RS-232 standard,** only for connection to the printer
- 1 Standard attachments: as shown above
- **Selectable measuring units:** N, kN, kg, oz, lbf
- 2 **Delivered in a robust carrying case**

Technical data

- Internal measuring frequency: 1000 Hz
- Transfer rate to PC: approx. 25 measured values per second
- Measuring precision: 0,2 % of [Max]
- Overload protection: 120 % of [Max]
- Overall dimensions W×D×H 175×75×30 mm
- Thread: M6
- Rechargeable battery pack integrated, standard, operating time up to 10 h without backlight, charging time approx. 8 h
- Net weight approx. 0,5 kg

Accessories

- **Plug-In for data transfer of measuring** data from the measuring instrument and transfer to a PC, e.g. in Microsoft Excel®, SAUTER AFI-1.0
- **Force-displacement data transfer software** with graphical representation of the measuring process, only in combination with SAUTER LD, SAUTER AFH LD
- **Force-time data transfer software** with graphic display of the measurement process, SAUTER AFH FAST
- **Force-displacement data transfer software** with graphic display of the measurement process, only in combination with SAUTER LB, SAUTER AFH FD
- **USB cable,** SAUTER FL-A01
- **RS-232 adapter cable,**SAUTER FL-A04
- **Thermal printer,** KERN YKB-01N
- **Statistics thermal printer,** KERN YKS-01
- **Label printer,** KERN YKE-01
- Supports for fastening of objects as well as
- Supports for fastening of objects as well as additional accessories, please see page 36 onwards or our website

STANDARD

OPTION

Model SAUTER	Measuring range [Max] N	Readout [d] N		Option **DAkkS calibration certificate**					
				Tensile force		Compressive force		Tensile/Compressive force	
				DAkkS KERN		DAkkS KERN		DAkkS KERN	
FL 5	5	0,002		–		–		–	
FL 10	10	0,005		963-161		963-261		963-361	
FL 20	25	0,01		963-161		963-261		963-361	
FL 50	50	0,02		963-161		963-261		963-361	
FL 100	100	0,05		963-161		963-261		963-361	
FL 200	250	0,1		963-161		963-261		963-361	
FL 500	500	0,2		963-161		963-261		963-361	
FL 1K	1000	0,5		963-162		963-262		963-362	

! Further calibration options on request

Pictograms

Adjusting program (CAL):
For quick setting of the instrument's accuracy. External adjusting weight required.

Calibration block:
standard for adjusting or correcting the measuring device.

Peak hold function:
capturing a peak value within a measuring process.

Scan mode:
continuous capture and display of measurements.

Push and Pull:
the measuring device can capture tension and compression forces.

Length measurement:
captures the geometric dimensions of a test object or the movement during a test process.

Focus function:
increases the measuring accuracy of a device within a defined measuring range.

Internal memory:
to save measurements in the device memory.

Data interface RS-232:
bidirectional, for connection of printer and PC.

Data interface USB:
To connect the measuring instrument to a printer, PC or other peripheral devices.

WLAN data interface:
To transfer data from the balance to a printer, PC or other peripherals.

Data interface Infrared:
To transfer data from the measuring instrument to a printer, PC or other peripheral devices.

Control outputs (optocoupler, digital I/O):
to connect relays, signal lamps, valves, etc.

Analogue interface:
to connect a suitable peripheral device for analogue processing of the measurements

Statistics:
using the saved values, the device calculates statistical data, such as average value, standard deviation etc.

PC Software:
to transfer the measurement data from the device to a PC.

Printer:
a printer can be connected to the device to print out the measurement data.

Network interface:
For connecting the scale to an Ethernet network.

KERN Communication Protocol (KCP):
It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems.

GLP/ISO record keeping:
of measurement data with date, time and serial number. Only with SAUTER printers

Measuring units:
Weighing units can be switched to e.g. non-metric at the touch of a key. Please refer to website for more details.

Measuring with tolerance range (limit-setting function):
Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model

ZERO:
Resets the display to "0".

Battery operation:
Ready for battery operation. The battery type is specified for each device.

Rechargeable battery pack:
rechargeable set.

Mains adapter:
230V/50Hz in standard version for EU. On request GB, AUS or USA version available.

Power supply:
Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request.

Motorised drive:
The mechanical movement is carried out by a electric motor.

Motorised drive:
The mechanical movement is carried out by a synchronous motor (stepper).

Fast-Move:
the total length of travel can be covered by a single lever movement.

DAkkS calibration possible:
The time required for DAkkS calibration is shown in days in the pictogram.

Factory calibration:
The time required for factory calibration is specified in the pictogram.

Package shipment:
The time required for internal shipping preparations is shown in days in the pictogram.

Pallet shipment:
The time required for internal shipping preparations is shown in days in the pictogram.

Your KERN specialist dealer: