Digital force gauge SAUTER FL

PREMIUM
★★★

Premium force measuring instrument with graphic-assisted display

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 (period of time approx. 10 s)
- **Metal housing** for durable usage in harsh environmental conditions
- Can be mounted on all SAUTER test stands
- **Capacity display:** A bar lights up to show how much of the measuring range is still available
- **Limit value function,** programming of Max./Min., in pull and push direction, with output of acoustic and optical signal. Ideal mode for efficient and accurate testing of standard parts
- **Internal memory** for up to 500 measurements
- **Continuous analogue output:** Linear voltage signal in relation to the load (-2 to +2V)
- **1** Delivered in a hard carrying case

- **2** SAUTER FL 2K: with external sensor, Tension loops and pressure plates are included in delivery
- **3** Standard attachments: as shown besides (not for FL 2K)
- Selectable measuring units: N, KN, kg, oz, lbf

Technical data

- Internal measuring frequency: 1000 Hz
- Precision: 0,2 % of [Max]
- Overload protection: 120 % of [Max]
- Dimensions W×D×H 175×75×30 mm
- Thread: M6
- Dimensions load cell W×D×H 51×76,2×19 mm
- Thread: M12
- 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-time data transfer software** for graphical representation on the PC and data transfer to Microsoft Excel®, SAUTER AFH FAST
- **Force-displacement data transfer software** with graphic display of the measurement process, 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
- For information on holders to hold objects in place as well as other accessories, please see page 24 onwards or www.sauter.eu

STANDARD

| PEAK | PUSH/PULL | MEMORY | RS 232 | USB | ANALOG | GLP PRINTER | UNIT | TOL | ACCU | 230 V | 1 DAY | 2 YEARS WARRANTY |

OPTION

| SOFTWARE | DAkkS +4 DAYS | ISO +4 DAYS |

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Model	Measuring range	Readout		Option DAkkS calibration certificate					
				Tensile force		Compressive force		Tensile/Compressive force	
SAUTER	[Max] N	[d] N		DAkkS KERN		DAkkS KERN		DAkkS KERN	
FL 5	5	0,002		963-161		963-261		963-361	
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	
FL 2K	2500	1		963-162		963-262		963-362	

SAUTER Pictograms:

Adjusting program (CAL):
For quick setting of the balance'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 balance to a printer, PC or other peripheral devices.

Data interface Infrared:
To transfer data from the balance 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 measurements from the device to a PC.

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

GLP/ISO record keeping:
of measurements 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:
Upper and lower limiting can be programmed individually, e.g. for sorting and dosing.

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.

Warranty:
The warranty period is shown in the pictogram.

Your SAUTER specialist dealer: