Digital force gauge SAUTER FL-M

NEW · PREMIUM ★★★

Premium force measuring instrument with graphic assisted display for tension and compression tests with external measuring cell

Features

- **Premium force gauge** with external measuring cell, tension loops and compression plates included in delivery
- **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
- **Measuring with tolerance range (limit-setting function):** Upper and lower limiting can be programmed individually, 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)
- **Selectable measuring units:** N, kN, kg, oz, lbf
- 1 **Delivered in a robust carrying case**

Technical data

- Internal measuring frequency: 1000 Hz
- Precision: 0,2 % of [Max]
- Overload protection: 120 % of [Max]
- Dimensions housing: W×D×H 175×75×30 mm
- Dimensions load cell W×D×H 76,2×51×19 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-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** 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, only in combination with SAUTER LB, SAUTER AFH FD
- **USB cable,** SAUTER FL-A01
- **RS-232 adapter cable,** SAUTER FL-A04

STANDARD: PEAK · PUSH/PULL · MEMORY · RS 232 · USB · ANALOG · GLP PRINTER · UNIT · TOL · ACCU · 230 V · 1 DAY

OPTION: SOFTWARE · DAkkS +4 DAYS · ISO +4 DAYS

Model	Measuring range	Readout	Option DAkkS calibration certificate (≤ 5 kN)/Factory calibration certificates (< 5 kN)					
			Tensile force		Compressive force		Tensile/Compressive force	
SAUTER	[Max] N	[d] N	DAkkS KERN		DAkkS KERN		DAkkS KERN	
FL 2K	2500	1	963–162		963–262		963–362	
FL 5K	5000	1	963–163		963–263		963–363	
FL 10K	10000	2	961–164		–		–	
FL 20K	20000	5	961–164		–		–	

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.

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.

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:

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