

Digital Force Gauge SAUTER FH-S













Universal digital force gauge for tensile and compressive force measurements with integrated load cell

Features

- · Turnable display with backlight
- 11 Can be mounted on all SAUTER test stands up to 5 kN
- 2 NEW: USB interface for data transfer and power supply as standard
- · Data interface RS-232 as standard
- · Selectable measuring units: N, kgf, lbf
- Peak-Hold function to capture the peak value or Track function for continuous display of measurement
- · Measuring with tolerance range (limit-setting function): Upper and lower limit adjustable, in pull and push direction. The process is supported by an audible and visual signal
- · Auto-Power-Off
- Internal memory for up to 10 measurement values
- · Mini Statistics Kit: calculates the average result from up to 10 stored measured values, as well as min., max., n

- 3 Standard attachments as shown, extension rod: 90 mm, included with the delivery
- 4 Delivered in a robust carrying case

Technical data

- Transfer rate to PC: approx. 25 measured values per second
- Measuring precision: 0,5% of [Max]
- · Overload protection: 150% of [Max]
- · Thread: M6
- Overall dimensions W×D×H 240×70×40 mm
- · Rechargeable battery pack integrated, as standard, operating time up to 40 h without backlight, charging time approx. 120 min
- · External mains adapter, for connection to the USB-C connector, standard
- · Net weight approx. 0,55 kg

Accessories

- · Data transfer software with graphic display of the measurement process, force-time,
- SAUTER AFH FAST
- RS 232 connection cable to connect models from the SAUTER FH range to an electric SAUTER test bench, SAUTER FH-A04
- 3 Standard attachments as standard, set can be reordered, SAUTER AC 43

STANDARD



























Measuring Readability Option DAkkS Calibration Certificate Model Tensile Force range **Compressive Force** Tensile/Compressive Force [Max] [d] DAkkS DAkkS **DAkkS** SAUTER KERN KERN KERN FH 2 2 0,001 FH 5 5 0,001 10 963-261 FH 10 0,005 963-161 963-361 FH 20 20 0.01 963-161 963-261 963-361 FH 50 50 0,01 963-161 963-261 963-361 FH 100 100 0,05 963-161 963-261 963-361 200 963-161 963-261 963-361 FH 200 0.1 FH 500 500 0,1 963-161 963-261 963-361

Further calibration options on request

BALANCES & TEST SERVICE 2024

SAUTER PICTOGRAMS



Conformity assessment

DAkkS calibration

The time required for

DAkkS calibration is shown

Factory calibration (ISO)

The time required for factory

calibration is specified in the pictogram

Package shipment

The time required for

the pictogram

the pictogram

Pallet shipment

The time required for

internal shipping prepara-

tions is shown in days in

internal shipping prepara-

tions is shown in days in

in days in the pictogram

Models with type approval for construction of verifiable

M

DAkkS

+3 DAYS

ISO

1 DAY

systems

possible



Adjusting program (CAL) For quick setting of the

instrument's accuracy. External adjusting weight required



Calibration block

Standard for adjusting or correcting the measuring



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



Profibus

For transmitting data, e.g. between scales, measuring cells, controllers and peripheral devices over long distances. Suitable for safe, fast, fault-tolerant data transmission. Less susceptible to magnetic interference



Profinet

Enables efficient data exchange between de-centralised peripheral devices (balances, measuring cells, measuring instruments etc.) and a control unit (controller). Especially advantageous when exchanging complex measured values, device, diagnostic and process information. Savings potential through shorter commissioning times and device integration possible



Data interface USB

To connect the measuring instrument to a printer, PC or other peripheral devices



Bluetooth* data interface To transfer data from

the balance/measuring instrument to a printer, PC or other peripherals



WIFI data interface

To transfer data from the balance/measuring instrument 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



Analogue output

For output of an electrical signal depending on the load (e.g. voltage 0 V - 10 V or current 4 mA - 20 mA)



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



A printer can be connected to the device to print out the measurement data



Network interface

For connecting the scale/ measuring instrument 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. 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



Protection against dust and water splashes IPxx

The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989 +A1:1999+A2:2013



ZERO

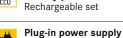
Resets the display to "0"



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



Rechargeable battery pack





230V/50Hz in standard version for EU. On request GB, AUS or US version available



Integrated power supply unit

Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US 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

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