

Digital force gauge SAUTER FH-M







Universal digital force gauge for tensile and compressive force measurements with external measuring cell

Features

- Turnable display with backlight
- · Data interface RS-232, standard
- · Delivered in a robust carrying case
- · Selectable measuring units: N, kN, kgf, tf
- · Peak-Hold function to capture peaks (measurement result will be "frozen" for a short time) or Track function mode for a continuous measurement indication
- · 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
- · Mini Statistics Kit: calculates the average result from up to 10 stored measured values, as well as, min., max., n

Technical data

- Measuring frequency: 2000 Hz
- Transfer rate to PC: approx. 25 measured values per second
- Measuring precision: 0,5 % of [Max]
- · Overload protection: 150 % of [Max]
- Dimensions housing W×D×H 66×36×230 mm
- · Rechargeable battery pack integrated, standard, operating time up to 12 h without backlight, charging time approx. 4 h
- II Tension loops and compression plates are included in delivery
- · Cable length approx 3 m

Accessories

- Data transfer software with graphic display of the measurement process, SAUTER AFH FAST Force-displacement only in combination with SAUTER LD, SAUTER AFH LD Force-displacement only in combination with SAUTER LB, SAUTER AFH FD
- RS-232/PC connection cable to connect models from the SAUTER FH range to a PC or a printer, SAUTER FH-A01
- · Matrix needle printer, KERN YKN-01
- · Thermal printer, KERN YKB-01N
- · Statistics thermal printer, KERN YKS-01
- · Label printer, KERN YKE-01
- For further accessories see page 35 onwards or our website

STANDARD





























Model	Measuring	Readout	Dimensions	Thread	Option DAkl	Option DAkkS calibration certificate (≤ 5 kN)/Factory calibration certificates (> 5 kN)			
	range		load cell		Tensi	le force Compres	ssive force Tensile	Tensile/Compressive force	
	[Max]	[d]	W×D×H						
SAUTER	kN	N	mm		KERN	KERN	KEF	RN	
FH 1K	1	0,5	76,2×51×19	M12	963-162	963-262	963-	362	
FH 2K	2	1	76,2×51×19	M12	963-162	963-262	963-	362	
FH 5K	5	1	76,2×51×28,2	M12	963-163	963-263	963-	363	
FH 10K	10	5	76,2×51×28,2	M12	961-164	961-264	961-	364	
FH 20K	20	10	76,2×51×28,2	M12	961-164	961-264	961-	364	
FH 50K	50	10	108×76,3×25,5	M18×1,5	961-165	961-265	961-	365	
FH 100K	100	50	178×152,2×51,3	M30 × 2	961-166	961-266	961-	366	

II Further calibration options on request

SAUTER CATALOGUE 2021



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



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 decentralised 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



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IR

SWITCH

ANALOG

STATISTIC

KCP

valves, etc.

Analogue interface:

Analog output:

4 mA - 20 mA) Statistics:

PC Software:

Printer:

WLAN data interface:

Data interface Infrared:

To connect relays, signal lamps,

To transfer data from the balance/measuring instrument to a printer, PC or other peripherals

To transfer data from the measuring instrument

to a printer, PC or other peripheral devices

Control outputs (optocoupler, digital I/O):

To connect a suitable peripheral device for

analogue processing of the measurements

For output of an electrical signal depending

Using the saved values, the device

calculates statistical data, such as

To transfer the measurement data

to print out the measurement data

from the device to a PC

Network interface:

to an Ethernet network

digital systems

Measuring units:

GLP/ISO record keeping:

average value, standard deviation etc.

A printer can be connected to the device

For connecting the scale/measuring instrument

It is a standardized interface command set for

KERN balances and other instruments, which

parameters and functions of the device. KERN

devices featuring KCP are thus easily integrated

with computers, industrial controllers and other

allows retrieving and controlling all relevant

Of measurement data with date, time and

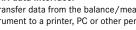
serial number. Only with SAUTER printers

Weighing units can be switched to e.g.

non-metric at the touch of a key. Please

KERN Communication Protocol (KCP):

on the load (e.g. voltage 0 V - 10 V or current





Protection against dust and water

splashes IPxx:

The type of protection is shown in the pictogram.



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



Verification possible:

The time required for verification is specified in the pictogram



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



PRINTER

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

Your KERN specialist dealer:

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