



Universal digital force gauges for tension and compression tests with external measuring cell and RS-232 data interface

### FH 50K.:

- · Dimensions load cell W×D×H 108×76,3×25,5 mm
- Thread: M18

### FH 100K.:

- · Dimensions load cell W×D×H 178×152,2×51,3 mm
- · Thread: M30

### **Features**

- · Turnable display with backlight
- · Cable length: approx. 3 m
- · Data interface RS-232, included
- Delivered in a robust carrying case
- · Selectable measuring units: N, kN, kg, t, lb
- · 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)
- 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 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**

- · High resolution: up to 10,000 points (total measuring range)
- Measuring frequency: 2000 Hz
- 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
- In Tension loops and compression plates are included in delivery
- · Cable length approx 3 m

## FH 1K.-FH 2K.:

- · Dimensions load cell W×D×H 76,2×51×19 mm
- Thread: M12

## FH 5K.-FH 20K.:

- · Dimensions load cell W×D×H 76,2×51×28,2 mm
- Thread: M12

## **Accessories**

- · Relais module, serves to transfer the output signal of the dynamometer to control direct actions, SAUTER AFH-02
- · 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 graphical reprensentation of the measurement process, SAUTER AFH FD
- Matrix needle printer KERN YKN-01N
- Thermal printer, KERN YKB-01N
- Statistics thermal printer, KERN YKS-01
- · Label printer, KERN YKE-01
- · Further accessory see www.sauter.eu and page 25 et seqq.

STANDARD









































PEAK PUSH/PULL MEMORY	RS 232 STATISTIC TOL	ZERO ACCU 230 V	1 DAY SWITCH	SOFTWARE +4 DAYS +4 DAYS s. p. 67			
Model Measuring		Readout			bration certificate (≤ 5		
				Tensile force	Compressiv		
	[Max]	[d]		DAkkS	DAkkS		
SAUTER	kN	N		KERN	KERN		
H 1K.	1	0,5		963-162	963-262		
⊔ 2 <i>K</i>	2	1		063 162	062 262		

Model	Measuring range	Readout	Option <b>DAI</b>	Option DAkkS calibration certificate (≤ 5 kN)/Factory calibration certificate				
			Tensil	e force Compres	ssive force Tensile/Com	Tensile/Compressive force		
	[Max]	[d]	DAkkS	DAkkS	DAkkS			
SAUTER	kN	N	KERN	KERN	KERN			
FH 1K.	1	0,5	963-162	963-262	963-362			
FH 2K.	2	1	963-162	963-262	963-362			
FH 5K.	5	1	963-163	963-263	963-363			
FH 10K.	10	5	961-164	_	_			
FH 20K.	20	10	961-164	_	_			
FH 50K.	50	10	961-165	_	_			
FH 100K.	100	50	961-166	-	_			

# **SAUTER Pictograms:**





## Adjusting program (CAL):

For quick setting of the balance's accuracy. External adjusting weight required.



# Control outputs

## (optocoupler, digital I/O):

to connect relays, signal lamps, valves, etc.



### Rechargeable battery pack:

rechargeable set.



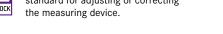
PEAK

### Calibration block:

Peak hold function:

measuring process.

standard for adjusting or correcting





### Analogue interface:

to connect a suitable peripheral device for analogue processing of the measurements.



### Mains adapter:

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



### Statistics:

PC Software:

Printer:

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



## 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.



SCAN

# Scan mode:

Push and Pull:

continuous capture and display of measurements.

capturing a peak value within a



SOFTWARE

to transfer the measurements from the device to a PC.

a printer can be connected to the

device to print out the measurements.



Motorised drive: The mechanical movement is carried out

by a synchronous motor (stepper).

DAkkS calibration possible:

is shown in days in the pictogram.



## Length measurement:

and compression forces.

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

the measuring device can capture tension



## GLP/ISO record keeping:

of measurements with date, time and serial number. Only with SAUTER printers.



DAkkS

+3 DAYS

## Fast-Move:

the total length of travel can be covered by a single lever movement.



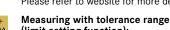
### Focus function:

increases the measuring accuracy of a device within a defined measuring range.



### 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.

(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



÷Ո← Resets the display to "0".



# Factory calibration:

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

The time required for DAkkS calibration



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.



## Internal memory: to save measurements

in the device memory.



## Data interface RS-232:

bidirectional, for connection of printer and PC.



IR

## 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.



ZERO

## **Battery operation:**

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

# Your SAUTER specialist dealer:

DISTRAME S.A. - Parc du Grand Troyes - Quartier Europe Centrale - 40, rue de Vienne - 10300 SAINTE-SAVINE Tél.: +33 (0)3 25 71 25 83 - Fax: +33 (0)3 25 71 28 98 - E-mail: infos@distrame.fr - Site internet: www.distrame.fr