

Product brochure

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# SAUTER FH 100 EXT

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

ENGLISH



## CONTACT

KERN & SOHN GmbH  
Ziegelei 1  
72336 Balingen  
Germany

+49 7433 9933-0  
info@kern-sohn.com  
www.kern-sohn.com



## FEATURES

- Turnable display with backlight
- NEW: USB interface for data transfer and power supply as standard
- Data interface RS-232 as standard
- Selectable measuring units: N, kN, kgf, tf
- 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
- Tension loops and compression plates are included in delivery
- 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]
- 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
- Cable length approx. 2,5 m
- Net weight approx. 0,90 kg

MAIN SCOPE OF APPLICATIONS

- Test laboratories
- Research and development
- Automotive industry
- Maintenance and servicing
- Plastics technology

PICTOGRAMS

Standard



Option



MODEL OVERVIEW

| Model      | Measuring range<br>[Max] | Readability<br>[d] |
|------------|--------------------------|--------------------|
| FH 50 EXT  | 50 N                     | 0,01 N             |
| FH 100 EXT | 100 N                    | 0,05 N             |
| FH 200 EXT | 200 N                    | 0,1 N              |
| FH 500 EXT | 500 N                    | 0,1 N              |

ACCESSORIES

| Model  | Description                                                                                        |
|--------|----------------------------------------------------------------------------------------------------|
| AC 01  | Screw tension clamp with jaws AC 01 (up to 500 N   width 20 mm,   clamping width 20 mm   2 piece)  |
| AC 01R | Screw tension clamp with jaws AC 01R (up to 500 N   width 20 mm,   clamping width 20 mm   1 piece) |
| AC 02  | Ball-shaped head SAUTER AC 02 (Ball radius: 5 mm / 8 mm   2 pieces)                                |
| AC 02R | Accessory force measurement AC 02R                                                                 |
| AC 03  | Screw tension clamp with jaws AC 03 (up to 5 kN   width 50 mm,   clamping width 4,5 mm   2 piece)  |
| AC 03R | Screw tension clamp with jaws AC 03R (up to 5 kN   width 50 mm,   clamping width 4,5 mm   1 piece) |
| AC 09  | Screw tension clamp with jaws AC 09 (up to 500 N   width 6 mm,   clamping width 8 mm   2 piece)    |
| AC 09R | Screw tension clamp with jaws AC 09R (up to 500 N   width 6 mm,   clamping width 8 mm   1 piece)   |
| AC 11R | Roller Tension Clamp AC 11R (up to 5 kN   width 50 mm,   clamping width 4 mm   1 piece)            |
| AC 12  | Screw tension clamp with jaws AC 12 (up to 5 kN   width 25 mm,   clamping width 5 mm   2 piece)    |
| AC 12R | Screw tension clamp with jaws AC 12R (up to 5 kN   width 25 mm,   clamping width 5 mm   1 piece)   |

| Model   | Description                                                                                        |
|---------|----------------------------------------------------------------------------------------------------|
| AC 14R  | Screw tension clamp with jaws AC 14R (up to 500 N   width 16 mm,   clamping width 4 mm   1 piece)  |
| AC 18   | Screw tension clamp with jaws AC 18 (up to 5 kN   width 60 mm,   clamping width 33 mm   2 piece)   |
| AC 18R  | Screw tension clamp with jaws AC 18R (up to 5 kN   width 60 mm,   clamping width 33 mm   1 piece)  |
| AC 22   | Screw tension clamp with jaws AC 22 (up to 500 N   width 30 mm,   clamping width 3 mm   2 piece)   |
| AC 22R  | Screw tension clamp with jaws AC 22R (up to 500 N   width 30 mm,   clamping width 3 mm   1 piece)  |
| AC 42   | Cable pull-off clamp AC 42                                                                         |
| AC 43   | Standard attachments AC 43                                                                         |
| AC 45   | Concave force sensor AC 45 (to 1 kN   Threaded hole M6)                                            |
| AC 46   | Flat square-shaped sensor AC 46 (to 1 kN   Threaded hole M6)                                       |
| AC 47   | Round sensor AC 47 (to 1 kN   Threaded hole M6)                                                    |
| AD 9001 | Screw tension clamp with jaws AD 9001 (up to 100 N   width 15 mm,   clamping width 8 mm   1 piece) |
| AD 9005 | Screw tension clamp with jaws AD 9005 (up to 400 N   width 25 mm,   clamping width 8 mm   1 piece) |
| AE 01   | Standard Clamp AE 01                                                                               |
| AE 02   | Standard Clamp AE 02                                                                               |
| AE 03   | Strip tension clamp AE 03 (up to 500 N   width 40 mm,   clamping width 2,5 mm   1 )                |
| AE 04   | Strip tension clamp AE 04 (up to 500 N   width 15 mm,   clamping width 6 mm   1 )                  |
| AE 05   | Rope and thread tension clamp AE 05 (up to 500 N   width ,   clamping width 2,5 mm   1 )           |
| AE 06   | Cable pull-off clamp AE 06                                                                         |
| AE 07   | Wedge Clamp with jaws AE 07 (up to 500 N   width 14 mm,   clamping width 6 mm   1 )                |
| AE 08   | Pressure plate AE 08 (Ø 47 mm   to 5 kN)                                                           |
| AE 08R  | Accessory force measurement AE 08R                                                                 |
| AE 500  | Screw tension clamp with jaws AE 500                                                               |
| AFM 05  | Adapter AFM 05 (External thread M10   Threaded hole M6)                                            |
| AFM 06  | Adapter AFM 06 (Threaded hole M10   Threaded hole M6)                                              |
| AFM 07  | Adapter AFM 07 (External thread M10   Threaded hole M6)                                            |
| AFM 12  | Adapter AFM 12 (Threaded hole M6   Threaded hole M6)                                               |
| AFM 15  | Adapter AFM 15 (Threaded hole M12   Threaded hole M6)                                              |
| FH-A04  | RS232 interface cable FH-A04                                                                       |
| FS-E07  | Power supply unit EURO FS-E07                                                                      |
| YKA-01  | Schuko> UK Plug Power Adapters YKA-01                                                              |

| Model  | Description           |
|--------|-----------------------|
| YKA-02 | Travel adapter YKA-02 |
| YKT-01 | Needle printer YKT-01 |

## SOFTWARE

| Model    | Description                                                       |
|----------|-------------------------------------------------------------------|
| AFH FAST | Data transfer software for force-time-measurements, AFH FAST      |
| AFH LD   | Data transfer software for force-displacement-measurements AFH LD |

## SERVICES

| Model   | Description                                                                                                                                            |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 961-161 | Factory calibration certificate 961-161 (tension   N)                                                                                                  |
| 961-261 | Factory calibration certificate 961-261 (compression   N)                                                                                              |
| 961-361 | Factory calibration certificate 961-361 (tension, compression   N)                                                                                     |
| 963-161 | DAkkS calibration certificate 963-161 (force direction tension   measurement result unit N   calibration standard DKD-R 3-3 - sequence A)              |
| 963-261 | DAkkS calibration certificate 963-261 (force direction compression   measurement result unit N   calibration standard DKD-R 3-3 - sequence A)          |
| 963-361 | DAkkS calibration certificate 963-361 (force direction tension, compression   measurement result unit N   calibration standard DKD-R 3-3 - sequence A) |
| 970-105 | Warranty extension (+2 years) 970-105                                                                                                                  |

## KERN Pictogram Overview

|                                                                                    |                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Peak hold function: capturing a peak value within a measuring process                                                                                                                                                                         |
|    | Push and Pull: the measuring device can capture tension and compression forces                                                                                                                                                                |
|    | Memory: Device-internal memory capacity, e.g. for article data, measuring data, tare weights, PLU etc.                                                                                                                                        |
|    | Data interface RS-232: For connection to printers, PCs or other peripheral devices for data transfer over longer distances. Network in bus topology possible                                                                                  |
|    | Data Interface USB: For connection to printers, PCs or other peripheral devices                                                                                                                                                               |
|    | Statistics: using the saved values, the device calculates statistical data, such as average value, standard deviation etc.                                                                                                                    |
|    | Measuring with tolerance range (checkweighing): Upper and lower limit values can be programmed, e.g. for sorting, portioning or for measuring coatings or material thicknesses. The process is supported by an acoustic and/or optical signal |
|    | ZERO: Reset the display to 0                                                                                                                                                                                                                  |
|    | Rechargeable battery pack: Rechargeable set                                                                                                                                                                                                   |
|    | Plug-in power supply: 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available                                                                                                                                   |
|   | Package shipment by courier service: The duration of internal product provision is one day                                                                                                                                                    |
|  | PC Software: to transfer the measurements from the device to a PC                                                                                                                                                                             |
|  | Factory calibration (ISO): Factory calibration takes 4 working days                                                                                                                                                                           |
|  | Accredited calibration (DKD): The duration of the accredited calibration is 3 working days                                                                                                                                                    |