PROFESSIONAL MEASURING
SINCE 1844

KERN

Product brochure

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SAUTER FH 20

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

ENGLISH



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APPLICATION EXAMPLE



FEATURES

- Turnable display with backlight
- Can be mounted on all SAUTER test stands up to 5 kN
- 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
- Standard attachments as shown, extension rod: 90 mm, included with the 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]
- External 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. 0,60 kg

MAIN SCOPE OF APPLICATIONS

- Test laboratories
- Research and development
- Automotive industry
- Maintenance and servicing
- Plastics technology
- Retirement and nursing homes (non-medical)

PICTOGRAMS

Standard



Option



MODEL OVERVIEW

Model	Measuring range [Max]	Readability [d]
FH 2	2 N	0,001 N
FH 5	5 N	0,001 N
FH 10	10 N	0,005 N
FH 20	20 N	0,01 N
FH 50	50 N	0,01 N
FH 100	100 N	0,05 N
FH 200	200 N	0,1 N
FH 500	500 N	0,1 N

ACCESSORIES

Model	Description
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 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 14	Screw tension clamp with jaws AC 14 (up to 500 N | width 16 mm, | clamping width 4 mm | 2 piece)
AC 14R	Screw tension clamp with jaws AC 14R (up to 500 N | width 16 mm, | clamping width 4 mm | 1 piece)
AC 16R	Screw tension clamp with jaws AC 16R (up to 5 kN | width 20 mm, | clamping width 5 mm | 1 piece)
AC 17	Screw tension clamp with jaws AC 17 (up to 500 N | width 8 mm, | clamping width 2,5 mm | 2 piece)
AC 17R	Screw tension clamp with jaws AC 17R (up to 500 N | width 8 mm, | clamping width 2,5 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 43	Standard attachments AC 43
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)
AD 9016	Screw tension clamp with jaws AD 9016 (up to 1 kN | width 30 mm, | clamping width 10 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
AFH 04	Stainless steel handle with plastic coating AFH 04
AFH 05	Stainless steel handle with plastic coating AFH 05

Model	Description
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
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)
970-101	Warranty extension (+2 years) 970-101

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

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