PROFESSIONAL MEASURING
SINCE 1844

KERN

Product brochure

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SAUTER FC 1K-BT

Compact force measuring instrument

ENGLISH



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FEATURES

- Checking the consistency of sprayed concrete is essential to ensure the maximum strength of the concrete during the curing process
- The FC 1K-BT determines exactly the forces required for the needle to penetrate the concrete. This allows reliable conclusions to be made regarding the compressive strength of the concrete during the dry phase
- Peak-Hold function to capture the peak value or Track function for continuous display of measurement
- Metal housing for durable use in harsh environmental conditions
- Capacity display: A bar lights up to show how much of the measuring range is still availableLimit value function, programming of Max./Min., with output of acoustic and optical signal per ok indication
- Safety: If loads exceed 110 % of the measuring range, the device will give clear acoustic and visual signals
- Internal memory for up to 500 measurement values
- Delivered in a robust carrying case
- Turnable display with backlight
- Selectable: AUTO-OFF function or continuous operation, charge indicator

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TECHNICAL DATA

- Transmission rate to PC: up to 200 measured values/second
- Measuring precision: 0,3% of [Max]
- Overload protection: 150% of [Max]
- Housing dimensions W×D×H 145×73×34 mm
- Net weight approx. 1,8 kg
- Selectable measuring units: N, kgf, ozf, lbf
- Robust, cleanable and portable construction
  - Built-in 1000 N force measuring cell
  - Rapid and simple changing of the penetration needle
  - Inverted display for better readability
  - Live peak force value for immediate monitoring
  - Measurement precision ± 0,1 %
  - USB interface
- Penetration needle and adapter
  - Removable if necessary
  - Needle diameter: 3 mm
  - Upper angle: 60 degrees
  - Length: 15 mm
  - Included: 15 needles

MAIN SCOPE OF APPLICATIONS

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

PICTOGRAMS

Standard



Option



MODEL OVERVIEW

Model	Measuring range [Max]	Readability [d]
FC 1K-BT	1 kN	1 N

ACCESSORIES

Model	Description
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)
AC 16R	Screw tension clamp with jaws AC 16R (up to 5 kN | width 20 mm, | clamping width 5 mm | 1 piece)
AC 18	Screw tension clamp with jaws AC 18 (up to 2 kN | width 60 mm, | clamping width 33 mm | 2 piece)
AC 18R	Screw tension clamp with jaws AC 18R (up to 2 kN | width 60 mm, | clamping width 33 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)
AE 08	Pressure plate AE 08 (Ø 47 mm | to 5 kN)
AE 08R	Accessory force measurement AE 08R
AFK 02	Stainless steel handle with plastic coating AFK 02
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)
FC-A01	Connection cable FC-A01
YKA-01	Schuko> UK Plug Power Adapters YKA-01
YKA-02	Travel adapter YKA-02

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
961-162	Factory calibration certificate 961-162 (tension | N)
961-262	Factory calibration certificate 961-262 (compression | N)
961-362	Factory calibration certificate 961-362 (tension, compression | N)
963-162	DAkkS calibration certificate 963-162 (force direction tension | measurement result unit N | calibration standard DKD-R 3-3 - sequence A)
963-262	DAkkS calibration certificate 963-262 (force direction compression | measurement result unit N | calibration standard DKD-R 3-3 - sequence A)
963-362	DAkkS calibration certificate 963-362 (force direction tension, compression | measurement result unit N | calibration standard DKD-R 3-3 - sequence A)
970-107	Warranty extension (+2 years) 970-107

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
	Units can be switched to e.g. non-metric units
	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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