

Digital concrete tester SAUTER FC 1K-BT



Compact force measuring instrument

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 available
- Limit 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 data memory for up to 500 measured values
- Delivered in a robust carrying case
- Turnable display with backlight
- Selectable: AUTO-OFF function or continuous operation, charge indicator

Technical data

- Transmission rate to PC: up to 200 measured values/second
- Accuracy: 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 load cell
 - Rapid and simple changing of the penetration needle
 - Inverted display for better readability
 - Live peak force value for immediate monitoring
 - Measurement precision $\pm 0,1 \%$
 - Memory for up to 500 measurements
 - USB interface
- Penetration needle and adapter
 - Removable if necessary
 - Needle diameter: 3 mm
 - Upper angle: 60 degrees
 - Length: 15 mm
 - Included: 15 needles

Accessories

- Needle for concrete tester SAUTER BT-A01
- Further accessories see our website

STANDARD



OPTION



Model	Measuring range	Division	Option DAKkS calibration certificate	
			Tensile force	Compressive force
SAUTER	[Max] N	[d] N	DAKkS KERN	DAKkS KERN
FC 1K-BT	1000	1	963-162	963-262



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



WLAN data interface:

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



Data interface Infrared:

To transfer data from the measuring instrument to a printer, PC or other peripheral devices



Control outputs

(optocoupler, digital I/O):

To connect relays, signal lamps, valves, etc.



Analogue interface:

To connect a suitable peripheral device for analogue processing of the measurements



Analog output:

For output of an electrical signal depending on the load (e.g. voltage 0 V - 10 V or current 4 mA - 20 mA)



Statistics:

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



PC Software:

To transfer the measurement data from the device to a PC



Printer:

A printer can be connected to the device to print out the measurement data



Network interface:

For connecting the scale/measuring instrument to an Ethernet network



KERN Communication Protocol (KCP):

It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems



GLP/ISO record keeping:

Of measurement data with date, time and serial number. Only with SAUTER printers



Measuring units:

Weighing units can be switched to e.g. non-metric. Please 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



Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013



ZERO:

Resets the display to "0"



Battery operation:

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



Rechargeable battery pack:

Rechargeable set



Plug-in power supply:

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



Integrated power supply unit:

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:

Models with type approval for construction of verifiable systems



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