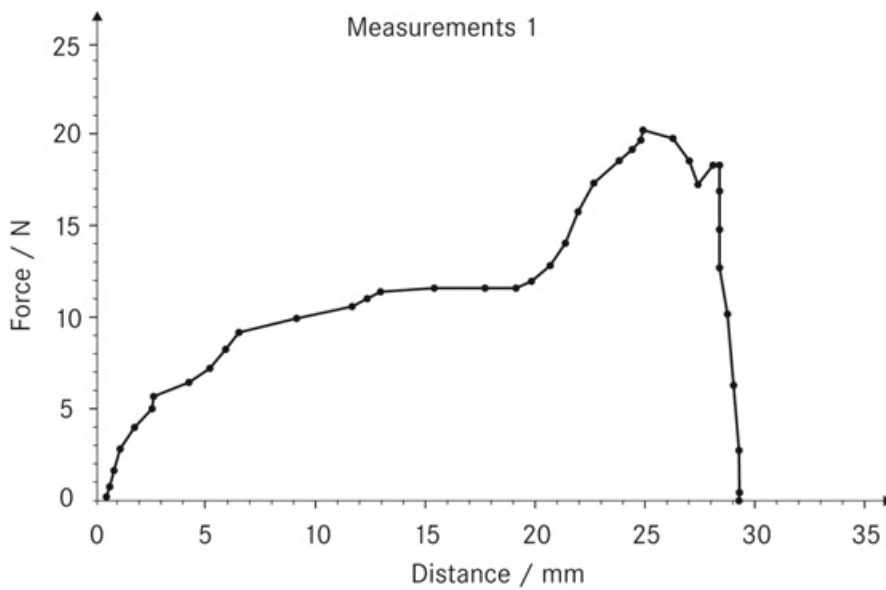


Data transfer software SAUTER AFH FD · AFH LD



Data transfer software for force-displacement-measurements

Features

- AFH FD/AFH LD software is designed for all applications that require the measurement of forces, depending on the displacement. Typically these are force progression graphs in penetration tests or pullout tests
- The program simultaneously requests the measurements from a force measuring device, e.g. SAUTER FH, as well as a length measuring device, e.g. SAUTER LB or SAUTER LD 1, 2
- The measurements from both instruments are transferred continuously to the PC, synchronised by the AFH FD/AFH LD software and exported in the form of a graphic, as well as free data format for simple processing in Microsoft Excel®
- The software AFH FD/AFH LD is compatible with all instruments of series SAUTER FC, FH, FL, FS
- These measuring instruments are usually used with SAUTER test stands, in particular those from the SAUTER TVM-N and TVS range. However, it is also possible to use them with mechanical testing machines

- Further analysis functions:
 - Extension of the test object
 - Tensile and compressive force
 - Endurance testing
 - Archiving the recorded data
 - Scope of delivery for SAUTER AFH FD/AFH LD:
 - Software AFH FD/AFH LD on DVD
 - User manual
 - RS 232 interface cable for FH (FH-A01)
 - USB interface cable for FL (FL-A01)
 - AFH FD: RS 232 interface cable for LB (LB-A01)
 - Compatible with following operating systems: Microsoft Windows 10®
 - Order example for a complete test system:
 - FH 5K (Digital force gauge)
 - LB 300-2 (Digital length measuring device)
 - AFH FD (Force-distance evaluation software)
 - TVM 5000N230N* (Test stand)
 - LB-A02* (Mounting LB on test stands)
 - 2 x AFH 12 (RS-232/USB adapter)
 - AC 04* (Test object holder)
 - 963-163* (Force calibration)
 - 961-150* (Length calibration)
- * not necessarily required for operating the AFH FD software

Technical data

- Data recording rate max. 3 Hz (specially in combination with SAUTER FH and SAUTER LB)
- Data recording rate max. 25 Hz (in combination with SAUTER LD, dependent on measuring instrument)

Accessories

- Interface cable RS-232 for SAUTER FH: SAUTER FH-A01 for SAUTER LB: SAUTER LB-A01
- RS-232/USB adapter, to connect peripheral devices with USB connection, SAUTER AFH 12

STANDARD



Model

SAUTER

AFH FD

AFH LD

SAUTER AFH LD

- Force-displacement software, but only in combination with a length measuring device of SAUTER LD series



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 an 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

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