Force measurement



Force-Measuring Bundle Range SAUTER S71





The practical all-in-one package for rapid, simple testing

FH 500S71

- All-in-One: Digital force-measuring device incl. clamp
- For rapid, simple testing of forces up to 500 $\ensuremath{\text{N}}$
- Assembly and configuration of the parts is not required and therefore saves time and effort
- For tensile force and compressive force testing

Accessories

· Data transfer software with graphic display of the measurement process, force-time, SAUTER AFH FAST

TVL 500FHS71

- All-in-One: test stand with digital force-measuring device and 2 clamps
- For manual testing with a pitch of 3 mm/rotation and for forces up to 500 $\ensuremath{\text{N}}$
- Assembly and configuration of the parts is not required and therefore saves time and effort
- · For tensile force and compressive force testing

Accessories

- · Digital length measuring device, measuring range 200 mm, readability 0,01 mm, details see page 51, SAUTER LB 200-2
- Mounting the length measuring device LB onto a SAUTER test stand at the factory, SAUTER LB-A02
- · Data transfer software with graphic display of the measurement process, force-time, SAUTER AFH FAST
- · Force-displacement only in combination with SAUTER LB, SAUTER AFH FD

STANDARD





























Model SAUTER	Measuring	Readout [d] N	Scope of supplies	Option DAkkS Calibration Certificate		
	range [Max] N			Tensile force DAkkS KERN	Compressive force DAkkS KERN	Tensile/Compressive force DAkkS KERN
FH 500\$71	500	0,1	1× FH 500 1× AE 500	963-161	963-261	963-361
TVL 500FHS71	500	0,1	1× TVL 1× FH 500 2× AE 500	963-161	963-261	963-361

Force measurement



Force-Measuring Bundle Range SAUTER S71



The practical all-in-one package for rapid, simple testing

Features

- All-in-One: test stand with digital force-measuring device and 2 clamps
- For precise, manual testing through a pitch of 2 mm/rotation
- ${\boldsymbol{\cdot}}$ Assembly and configuration of the parts is not required and therefore saves time and effort
- · For tensile force and compressive force testing

Accessories

• Data transfer software with graphic display of the measurement process, force-time, SAUTER AFH FAST

STANDARD



























Model SAUTER	Measuring range [Max] N	Readout [d] N	Scope of supplies	Option DAkkS Calibration Certificate		
				Tensile force DAkkS	Compressive force DAkkS	Tensile/Compressive force DAkkS
- SAUTER	IN .	IN	4 · · T) //	KERN	KERN	KERN
TVL 100FH\$71	100	0,05	1× TVL 1× FH 100 2× AE 500	963-161	963-261	963-361

MEASURING TECHNOLOGY & TEST SERVICE 2024

SAUTER Pictograms



Conformity assessment

Models with type approval

DAkkS calibration

The time required for

DAkkS calibration is shown

Factory calibration (ISO)

The time required for factory

calibration is specified in

Package shipment

The time required for

internal shipping prepara-

tions is shown in days in

the pictogram

the pictogram

the pictogram

Pallet shipment

The time required for

internal shipping prepara-

tions is shown in days in

in days in the pictogram

systems

possible

for construction of verifiable

M

DAkkS

+3 DAYS

ISO

1 DAY



Adjusting program (CAL)

For quick setting of the instrument's accuracy. External adjusting weight required



Calibration block

Standard for adjusting or correcting the measuring



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 de-centralised 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



WIFI 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



Analogue 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 US version available



Integrated power supply unit

Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US 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



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by KERN & SOHN GmbH is under license Other trademarks and trade names are those of their respective owners