

## Motorised vertical test stand SAUTER TVO



## Robust test stand for laboratory applications

### Features

- Motorised test stand for tension and compression tests
- Table-top design for comfortable operation
- Robust design for durable use
- Easy-to-access safety switch-off
- Upper and lower end point, can be set individually
- Automatic or manual operation mode
- Can be used for force gauges up to 500 N (e.g. SAUTER FH-S, not included, for details see page 12)

### Technical data

- Maximum tensile and compressive force: 500 N
- Maximum travel distance: 270 mm
- Speed accuracy: 2 % of [Max]
- Net weight approx. 25 kg

### Accessories

- Digital length measuring device, measuring range 300 mm, readout 0,01 mm, details see page 45, SAUTER LB 300-2.
- 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









































#### OPTION



Model	Measuring range	Speed range	Maximum travel distance	Overall dimensions	
	[Max] N	mm/min	mm	W×D×H mm	
<b>SAUTER</b>					
<b>TVO 500N300</b>	500	15-300	270	236×428×570	

## Pictograms

 <b>Adjusting program (CAL):</b> For quick setting of the instrument's accuracy. External adjusting weight required	 <b>WLAN data interface:</b> To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 <b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram.
 <b>Calibration block:</b> Standard for adjusting or correcting the measuring device	 <b>Data interface Infrared:</b> To transfer data from the measuring instrument to a printer, PC or other peripheral devices	 <b>ZERO:</b> Resets the display to "0"
 <b>Peak hold function:</b> Capturing a peak value within a measuring process	 <b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.	 <b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device
 <b>Scan mode:</b> Continuous capture and display of measurements	 <b>Analogue interface:</b> To connect a suitable peripheral device for analogue processing of the measurements	 <b>Rechargeable battery pack:</b> Rechargeable set
 <b>Push and Pull:</b> The measuring device can capture tension and compression forces	 <b>Analogue output:</b> For output of an electrical signal depending on the load (e.g. voltage 0 V – 10 V or current 4 mA – 20 mA)	 <b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version available
 <b>Length measurement:</b> Captures the geometric dimensions of a test object or the movement during a test process	 <b>Statistics:</b> Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.	 <b>Power supply:</b> Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request
 <b>Focus function:</b> Increases the measuring accuracy of a device within a defined measuring range	 <b>PC Software:</b> To transfer the measurement data from the device to a PC	 <b>Motorised drive:</b> The mechanical movement is carried out by a electric motor
 <b>Internal memory:</b> To save measurements in the device memory	 <b>Printer:</b> A printer can be connected to the device to print out the measurement data	 <b>Motorised drive:</b> The mechanical movement is carried out by a synchronous motor (stepper)
 <b>Data interface RS-232:</b> Bidirectional, for connection of printer and PC	 <b>Network interface:</b> For connecting the scale/measuring instrument to an Ethernet network	 <b>Fast-Move:</b> The total length of travel can be covered by a single lever movement
 <b>Profibus:</b> 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.	 <b>KERN Communication Protocol (KCP):</b> 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	 <b>Verification possible:</b> The time required for verification is specified in the pictogram
 <b>Profinet:</b> 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	 <b>GLP/ISO record keeping:</b> Of measurement data with date, time and serial number. Only with SAUTER printers	 <b>DAkKS calibration possible:</b> The time required for DAkKS calibration is shown in days in the pictogram
 <b>Data interface USB:</b> To connect the measuring instrument to a printer, PC or other peripheral devices	 <b>Measuring units:</b> Weighing units can be switched to e.g. non-metric at the touch of a key. Please refer to website for more details	 <b>Factory calibration:</b> The time required for factory calibration is specified in the pictogram
 <b>Bluetooth* data interface:</b> To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 <b>Measuring with tolerance range (limit-setting function):</b> Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model	 <b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram
		 <b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram

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