



## Premium force measuring instrument with graphic-assisted display

### Features

- **Turnable display** with backlight
- **Real time** or **Peak Hold Mode** to observe transients or capture peaks
- **Metal housing** for durable usage in harsh environmental conditions
- Can be mounted on all SAUTER test stands
- **Capacity display:** A bar lights up to show how much of the measuring range is still available
- **Function to set limits**, programming of Max./Min., in pull and push direction, with output of acoustic and optical signal. Ideal mode for efficient and accurate testing of standard parts
- **Internal memory** for up to 500 measurements

- **Continuous analogue output:** Linear voltage signal in relation to the load (0–2 V)
- **1** Delivered in a hard carrying case
- **2** SAUTER FL 2K: with external sensor, Tension loops and pressure plates are included in delivery
- **3** Standard attachments: as shown besides (not for FL 2K)
- Selectable measuring units: N, kN, kg, oz, lbf

### Technical data

- Internal measuring frequency
- Precision: 0,2 % of [Max]
- Overload protection: 120 % of [Max]
- Dimensions WxDxH 175x75x30 mm
- Thread: M6

- Rechargeable battery pack internal, standard, operating time up to 10 h without backlight, charging time approx. 8 h
- Net weight approx. 515 g

### Accessories

- **Force-time data transfer software** for graphical representation on the PC and data transfer to Microsoft Excel, transmission rate 20 HZ, SAUTER AFH FAST
- **Force-distance evaluation software** with graphic display of the measuring process, SAUTER AFH FD
- USB cable, SAUTER FL-A01
- **RS232 adapter cable**, SAUTER FL-A04
- Further accessory see [www.sauter.eu](http://www.sauter.eu) and page 21 et seqq.

#### STANDARD

































#### OPTION



Model	Measuring range [Max] N	Readout [d] N	Option ISO Calibration Certificate			
			Tension		Compression	
			ISO KERN		ISO KERN	
SAUTER						
FL 5	5	0,002	961-161		961-261	
FL 10	10	0,005	961-161		961-261	
FL 20	25	0,01	961-161		961-261	
FL 50	50	0,02	961-161		961-261	
FL 100	100	0,05	961-161		961-261	
FL 200	250	0,1	961-161		961-261	
FL 500	500	0,2	961-161		961-261	
FL 1K	1000	0,5	961-162		961-262	
FL 2K	2500	1	961-162		961-262	

Datasheet\_FL\_V1

 <b>CAL EXT</b>	<b>Adjusting program (CAL):</b> For quick setting of the balance's accuracy. External adjusting weight required.	 <b>IR</b>	<b>Data interface Infrared:</b> To transfer data from the balance to a printer, PC or other peripheral devices.	 <b>BATT</b>	<b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device.
 <b>CAL BLOCK</b>	<b>Calibration block:</b> standard for adjusting or correcting the measuring device.	 <b>SWITCH</b>	<b>Control outputs (optocoupler, digital I/O):</b> to connect relays, signal lamps, valves, etc.	 <b>ACCU</b>	<b>Rechargeable battery pack:</b> rechargeable set.
 <b>PEAK</b>	<b>Peak hold function:</b> capturing a peak value within a measuring process.	 <b>ANALOG</b>	<b>Analogue interface:</b> to connect a suitable peripheral device for analogue processing of the measurements.	 <b>230 V</b>	<b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version available.
 <b>SCAN</b>	<b>Scan mode:</b> continuous capture and display of measurements.	 <b>STATISTIC</b>	<b>Statistics:</b> using the saved values, the device calculates statistical data, such as average value, standard deviation etc.	 <b>230 V</b>	<b>Power supply:</b> Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request.
 <b>PUSH/PULL</b>	<b>Push and Pull:</b> the measuring device can capture tension and compression forces.	 <b>SOFTWARE</b>	<b>PC Software:</b> to transfer the measurements from the device to a PC.	 <b>MOTOR</b>	<b>Motorised drive:</b> The mechanical movement is carried out by a motorised drive.
 <b>SCALE</b>	<b>Length measurement:</b> captures the geometric dimensions of a test object or the movement during a test process.	 <b>PRINT</b>	<b>Printer:</b> a printer can be connected to the device to print out the measurements.	 <b>FAST-MOVE</b>	<b>Fast-Move:</b> the total length of travel can be covered by a single lever movement.
 <b>FOCUS</b>	<b>Focus function:</b> increases the measuring accuracy of a device within a defined measuring range.	 <b>GLP PROTOCOL</b>	<b>GLP/ISO record keeping:</b> of measurements with date, time and serial number. Only with SAUTER printers.	 <b>ISO +4 DAYS</b>	<b>ISO Calibration:</b> The time required for ISO calibration is shown in days in the pictogram.
 <b>MEMORY</b>	<b>Internal memory:</b> to save measurements in the device memory.	 <b>UNIT</b>	<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>1 DAY</b>	<b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.
 <b>RS 232</b>	<b>Data interface RS-232:</b> bidirectional, for connection of printer and PC.	 <b>TOL</b>	<b>Measuring with tolerance range:</b> Upper and lower limiting can be programmed individually, e.g. for sorting and dosing.	 <b>1 DAY</b>	<b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.
 <b>USB</b>	<b>Data interface USB:</b> To connect the balance to a printer, PC or other peripheral devices.	 <b>ZERO</b>	<b>ZERO:</b> Resets the display to "0".	 <b>2 YEARS WARRANTY</b>	<b>Warranty:</b> The warranty period is shown in the pictogram.

**Your SAUTER specialist dealer:**