

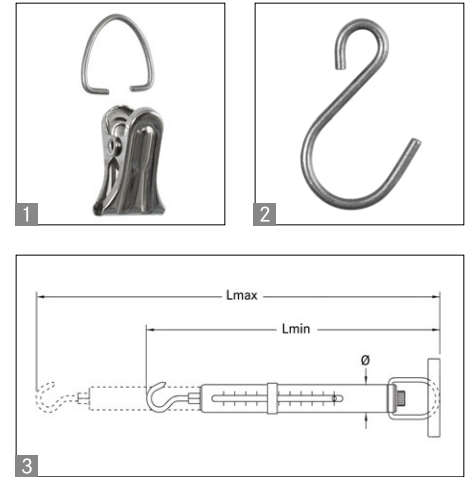
Spring balances SAUTER 287/289



SAUTER 289



SAUTER 287



Mechanical weight and force measurement with quality spring for long service life

Features

- The very best price/performance ratio thanks to the transparent plastic housing, ideal for schools and educational institutions
- Newton scale: The SAUTER 289 range can display the results in Newtons instead of in grammes, specifically for measuring tensile forces
- Double scale: For fast or precise recording of the measurement result
- High precision: Zero-play spring bearing with integrated tare screw for highly-precise adjustment
- Non-fatigue stainless steel spring
- Abrasion-resistant, colour precision scale with high resolution
- Thanks to the rotating inner tube, the scale is always easy to read
- The bracket which is delivered as standard can easily be swapped for another suspension device, so that the system can be individually adapted to the items being weighed

Technical data

- Measuring precision:  $\pm 0,3\%$  of [Max]
- Tare range: 20 % of [Max]

Accessories











































- **1** Bracket for spring balances of 10–1000 g / 0,1–10 N, SAUTER 287-A01
- **2** Hook for spring balances 10–1000 g / 0,1–10 N, SAUTER 287-A02



Model	Measuring range	Division	Load support	3 Dimensions			Option	
				Lmin	Lmax	ø	Factory calibration certificate	
SAUTER	N	N		mm	mm	mm	KERN	
289-100	1	0,01   0,05	hook	230	335	12	961-1610	
289-102	5	0,05   0,5	hook	230	335	12	961-1610	
289-104	10	0,1   0,5	hook	230	335	12	961-1610	

Model	Weighing range	Division	Load support	3 Dimensions			Option	
				Lmin	Lmax	ø	Factory calibration certificate	
SAUTER	g	g		mm	mm	mm	KERN	
287-100	10	0,1	clip	225	330	12	961-100	
287-102	20	0,2	clip	225	330	12	961-100	
287-104	50	0,5	clip	225	330	12	961-100	
287-106	100	1	clip	225	330	12	961-100	
287-108	500	5	clip	225	330	12	961-100	
287-110	1000	10	clip	225	330	12	961-100	

## 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>Analog 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>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>Factory calibration:</b> The time required for factory calibration is specified 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>Package shipment:</b> The time required for internal shipping preparations is shown in days 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>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram

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