

PROFESSIONAL MEASURING



OCCUPATIONAL SAFETY/ ENVIRONMENT

23

KERN Pictograms

	Adjusting program (CAL): For quick setting of the instrument's accuracy. External adjusting weight required		WLAN data interface: To transfer data from the balance/measuring instrument to a printer, PC or other peripherals		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
	Calibration block: Standard for adjusting or correcting the measuring device		Data interface Infrared: To transfer data from the measuring instrument to a printer, PC or other peripheral devices		ZERO: Resets the display to "0"
	Peak hold function: Capturing a peak value within a measuring process		Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.		Battery operation: Ready for battery operation. The battery type is specified for each device
	Scan mode: Continuous capture and display of measurements		Analogue interface: To connect a suitable peripheral device for analogue processing of the measurements		Rechargeable battery pack: Rechargeable set
	Push and Pull: The measuring device can capture tension and compression forces		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)		Plug-in power supply: 230V/50Hz in standard version for EU. On request GB, AUS or USA version available
	Length measurement: Captures the geometric dimensions of a test object or the movement during a test process		Statistics: Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.		Integrated power supply unit: Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request
	Focus function: Increases the measuring accuracy of a device within a defined measuring range		PC Software: To transfer the measurement data from the device to a PC		Motorised drive: The mechanical movement is carried out by an electric motor
	Internal memory: To save measurements in the device memory		Printer: A printer can be connected to the device to print out the measurement data		Motorised drive: The mechanical movement is carried out by a synchronous motor (stepper)
	Data interface RS-232: Bidirectional, for connection of printer and PC		Network interface: For connecting the scale/measuring instrument to an Ethernet network		Fast-Move: The total length of travel can be covered by a single lever movement
	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.		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		Verification possible: Models with type approval for construction of verifiable systems
	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. Saves potential through shorter commissioning times and device integration possible		GLP/ISO record keeping: Of measurement data with date, time and serial number. Only with SAUTER printers		Factory calibration: The time required for factory calibration is specified in the pictogram
	Data interface USB: To connect the measuring instrument to a printer, PC or other peripheral devices		Measuring units: Weighing units can be switched to e.g. non-metric. Please refer to website for more details		Package shipment: The time required for internal shipping preparations is shown in days in the pictogram
	Bluetooth* data interface: To transfer data from the balance/measuring instrument to a printer, PC or other peripherals		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		Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram

Do you have questions about our products? Our customer consultants will be pleased to assist you:

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Our team of consultants will assist you

from Monday to Friday
from 8:00 am to 5:00 pm



Photometer for precise light measurement up to 200,000 Lux

Features

- Helps to determine if workplace lighting meets standard requirements, e.g. DIN EN 12464-1 "Lighting of workplaces indoors"
- Photo sensor: silicon diode
- Cosine correction for angular incident light
- Track function for continuous recording of changing environmental conditions
- Peak Hold function to capture peak value
- Selectable measuring units: fc (foot-candle), lux
- Sturdy protective cover for the photo sensor
- Increased service life: Impact protection by means of a protective casing
- **1** Delivery in a robust box

Technical data

- Measuring frequency: 2 Hz
- Cable length (Photo sensor) approx. 1 m
- Overall dimensions W×D×H 160×72×40 mm
- Battery operation, battery not standard (9V Block), AUTO-OFF function for battery conservation
- Net weight approx. 0,25 kg



Model	Measuring range	Readout	Price excl. of VAT ex works €	Option	
				Factory calibration certificate	
SAUTER	[Max] lx	[d] lx		KERN	€
	200	0,1			
SO 200K	2000	1	92,-	961-190	205,-
	20000	10			
	200000	100			



Compact photometer, optimised for accurate light measurement, including LED light measurement

Features

- For measuring illumination of office workstations, production workstations, etc.
- Photo sensor: silicon diode, filtered
- Cosine correction for angular incident light
- Data-hold function, to freeze the current measurement
- 1 Rotatable sensor unit (+90 and -180°) for optimum alignment to the light source
- Track function for continuous recording of changing environmental conditions
- By pressing the key, the current measured value can be frozen until the key is pressed again
- Selectable measuring units: fc (foot-candle), lux
- Easy to toggle between units at the press of a button
- Option of fitting a stand on the rear of the housing, 1/4" thread
- Sturdy protective cover for the photo sensor
- 2 Increased service life: Impact protection through delivery in a soft box with light protection

Technical data

- Measurement precision up to 20.000 Lux: ± 4 % of the result + 10 scale intervals
- Measurement precision from 20.000 Lux: ± 5 % of the result + 10 scale intervals
- Repeatability: ± 2 % of [Max]
- Temperature error: ± 0,1 % von [Max]/°C
- Measuring frequency: 2 Hz
- Overall dimensions W×D×H 185×68×38 mm
- Ready for use: Battery included, 9 V block, operating time up to 200 h
- Net weight approx. 0,15 kg

STANDARD OPTION

BATT 1 DAY +10 DAYS

Model	Measuring range	Readout	Price excl. of VAT ex works €	Option	
				Factory calibration certificate	
SAUTER	[Max] lx	[d] lx	105,-	KERN	€
	0-200	0,1		961-190	205,-
SP 200K	200-2000	1			
	2000-20000	10			
	20000-200000	100			



Professional sound level meter

Features

- Professional sound level meter for measuring noise in areas such as, environment, mechanical applications, car industry and much more
- Measures the sound intensity in the workplace
- Helps in differentiating between normal noise influences, and excessive noise, nuisances e.g. in a production hall
- **1** Data interface RS-232, included
- Multi measuring functions:
Lp: Standard sound level measuring function
Leq: Energy equivalent sound level measuring mode (type A)
Ln: Shows the deviation from a pre-defined limit in %
- Selectable methods of evaluation:
A: As sensitive as the human ear
C: Sensitive for noisier environmental conditions, where there are machines, plant, motors etc.
F: For areas with constant sound intensity
- Limit value function: programmable value for the maximum level value
- Track function for continuous recording of changing environmental conditions

- Peak Hold function to capture peak value
- Internal memory for 30 measured values, transferable to PC with SAUTER ATC-01
- **2** Delivered in a robust carrying case

Technical data

- Measuring precision: 3 % of [Max]
- Dimensions W×D×H 236×63×26 mm
- Battery operation, batteries standard (4×1.5 V AAA)
- Net weight approx. 0,20 kg

Accessories

- Data transfer software, interface cable included, SAUTER ATC-01, **€ 100,-**
- Adjustment device for regular adjustment of the sound level meter, SAUTER ASU-01, **€ 290,-**
- Foam protective cover, SAUTER ASU-02, **€ 8,-**



Model	Type	Measuring range [Min]-[Max] dB	Readout [d] dB	Price excl. of VAT ex works €	Option Factory calibration certificate	
					KERN	€
SAUTER SU 130	Lp A	30-130		128,-	961-281	235,-
	Lp C	30-130	0,1			
	Lp F	30-130				



First-class professional Class I, Class II sound level meter

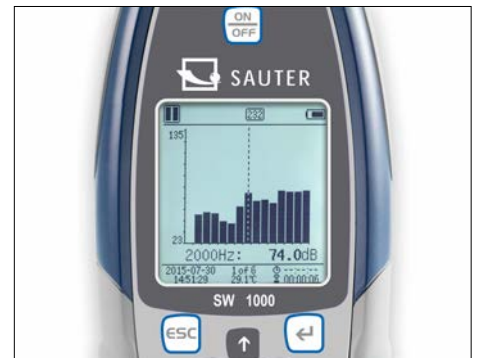
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Data logging function with date and time in the device...



... and data transfer using MicroSD (4G) memory card (included in delivery), RS-232 or USB





Different sound pressure levels can be selected, such as, LAeq, LcPeak, LaF, LaFMax, LaFMin, SD, SEL, E

Sound level meter SAUTER SW





Features

- Ideal for measurements for workplaces outdoor, e.g. at airports, on building sites, in road traffic etc. with wide frequency access
- Modern microcontroller architecture for increased stability and accuracy
- A specially-developed algorithm permits a compliant dynamic range of more than 120 dB! (SW 1000: > 123 dB; SW 2000: > 122 dB)
- Three profiles and 14 user-defined measurements can be calculated in parallel with different frequency and time weighting
- LN statistics and display of the graph showing the progression of time
- User-defined integral interval measurement up to a maximum of 24 hours is possible
- Frequency weighting (filter) A, B, C, Z
- Time interval during measurement: F (fast), S (slow), I (pulse)
- Freely-definable limits for the output of an optical alarm signal
- Peak Hold function to capture peak value
- Octave function for targeted sound analysis, can be expanded to 1/3 octave through the purchase of a licence
- TRACK function with graphic display of a measurement
- Calibration mode (with optional calibrator)
- Trigger mode: external start/stop of measurement via 3.5 mm connector
- Automatic measurement for timer function is possible
- Operating languages: EN, DE, FR, ES, PT
-  Option of fitting a stand on the rear of the housing, 1/4" thread
-  Delivery in robust transport case

Technical data

- Applicable standards:
 - IEC61672-1:2014-07
 - GB/T3785.1-2010
 - 1/1 Octave in accordance with IEC 61260:2014
- 1/2" microphone
- Output (direct or alternating current) AC (max 5 VRMS), DC (10 mV/DB)
- Mains operation as standard
- Battery operation possible, 4x1.5 V AA not included, operating time up to 10 h
- Overall dimensions WxDxH 300x80x36 mm
- Permissible ambient temperature -10 °C/50 °C
- Net weight approx. 0,40 kg

Accessories

- Plug-In for data transfer of measuring data from the measuring instrument and transfer to a PC, e.g. in Microsoft Excel®, SAUTER AFI-2.0, **€ 95,-**
-  Stand, WxDxH 430x90x90 mm, 1250x750x750 mm (moved out), SAUTER SW-A05, **€ 70,-**
- SD-memory card, storage capacity 4 GB, SAUTER SW-A04, **€ 54,-**
- Foam protective cover, SAUTER SW-A03, **€ 45,-**
-  Calibrator for regular adjustment of the sound level meter, class 1, as well as testing the linearity of sound level meters
 - Applicable standards: IEC60942:2003 Class 1, ANSI S1.40-1984, GB/T 15173-1994.
 - Output frequency 1 kHz (+/- 0,5 %)
 - Output of acoustic pressure, can be selected at 94 dB or 114 dB (± 0.3 dB)
 - Distortion factor < 2 %
 - Stabilisation time < 10 s
 - Permissible ambient temperature range -10 °C/50 °C
 - The calibrator is designed for 1/2" as well as 1/4" microphones (adapter included in the delivery) in accordance with the IEC 61094-4 standard
 - Battery operation, 2x 1.5 V AA, not standard, operating time up to 40 hours
 - Dimensions WxDxH 70x70x48 mm
 - Net weight approx. 137 g, SAUTER BSWA-01, **€ 770,-**
 - Factory calibration certificate, for calibrator, SAUTER 961-291, **€ 182,-**
 - DAKkS calibration certificate, for calibrator, SAUTER 963-291, **€ 255,-**
- Expansion of the octave band to 1/3 octave, SAUTER SW-A10, **€ 440,-**

STANDARD



OPTION



Model	Accuracy class	Measuring range Linear [Min]-[Max] dB	Readout [d] dB	Frequency range [Min]-[Max] kHz	Sensitivity mV/Pa	Price excl. of VAT ex works €	Option DAKkS calibration certificate		Option Factory calibration certificate	
							DAKkS KERN	€	KERN	€
SAUTER SW 1000	1	20-134	0,1	0,01-20	50	2150,-	963-281	335,-	961-281	235,-
SAUTER SW 2000	2	25-136	0,1	0,02-12,5	40	1320,-	963-281	335,-	961-281	235,-

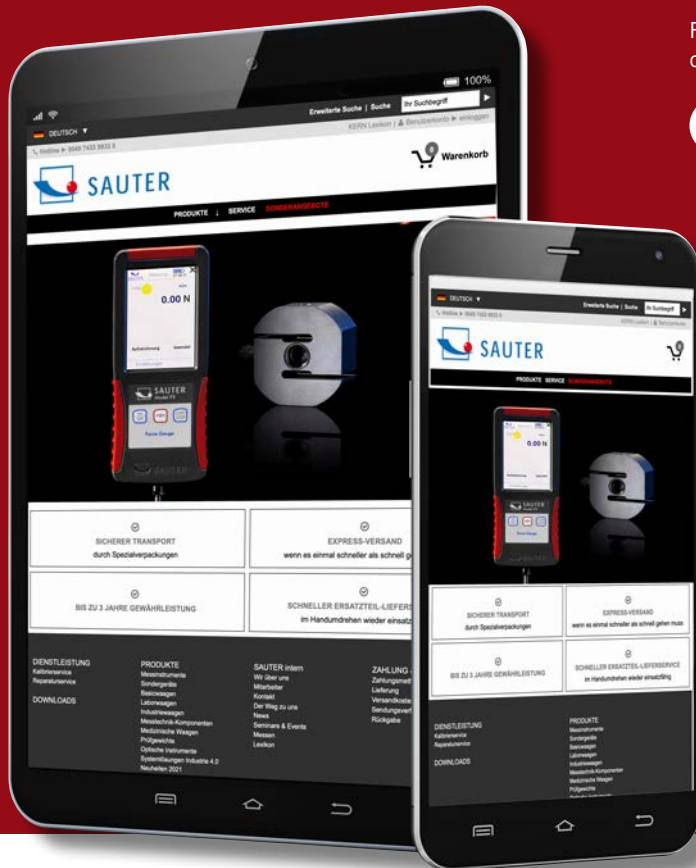
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