MEASURING TECHNOLOGY & TEST SERVICE 2023

TORQUE MEASUREMENT



Digital torquemeter SAUTER DB









Convenient way to test the torque of tools

Features

- Particularly suitable for testing torque wrenches, electric hand screwdrivers and cordless screwdrivers
- 2 Torque pick-up system for dynamic testing of electric screwdrivers (from SAUTER DB 0.5-4 to DB 50-2)
- Metal housing for durable use in harsh environmental conditions
- Capacity display: A bar lights up to show how much of the measuring range is still available
- LCD graphics display with backlight
- Rubber feet with anti-slip feature (from SAUTER DB 0.5-4 to DB 10-3)
- Stable mounting plate for solid fixation (from SAUTER DB 20-3 to DB 500-2)
- Data interface USB and RS-232 included

- Internal data memory saves up to 500 measurements. The memory contents can be transferred to the PC using optional software
- Peak-Hold function to capture the peak value or Track function for continuous display of measurement
- · Can be used in both directions of rotation
- Measuring with tolerance range (limit-setting function): Upper and lower limiting can be programmed individually. The process is supported by an audible and visual signal
- AUTO-OFF function
- Scope of delivery: Torque pick-up, sturdy carry case, mounting plate (for models with [Max] ≥ 20 Nm)

Technical data

- Backlit LCD graphics display
- Selectable measuring units: Nm, lbf-in, kgf-cm, kgf-m, ft-lbf
- Measuring precision: ± 0,5 % of [Max]
- Usable measuring range: 5 100 % of [Max]
- Overload protection: 120 % of [Max]
- Rechargeable battery pack integrated, as standard, operating time up to 18 h without backlight, charging time approx. 14 h
- Overall dimensions W×D×H 200×100×50 mm
- Net weight approx. 2,2 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
- Data transfer software with graphic display of the measurement process, Force-time, SAUTER AFH FAST

STANDARD)										OPTION
PEAK	MEMORY	RS 232	USB	STATISTIC	UNIT	→ 0 ← ZERO	ACCU	230 V	1 DAY	-√+ ③ Ͽ» TOL	SOFTWARE 1SO +4 DAYS

Model	Measuring range	Readout	Tool fitting	Option Factory calibration certificate KERN	
SAUTER	[Max] Nm	[d] Nm	mm/Inch		
DB 0.5-4	0,5	0,0001	20 mm & 3/8"	961-120	
DB 1-4	1	0,0002	20 mm & 3/8"	961-120	
DB 5-3	5	0,001	20 mm & 3/8"	961-120	
DB 10-3	10	0,002	20 mm & 3/8"	961-120	
DB 20-3	20	0,005	20 mm & 3/8"	961-120	
DB 50-2	50	0,01	20 mm & 3/8"	961-120	
DB 100-2	100	0,02	3/8"	961-120	
DB 200-2	200	0,05	1/2"	961-120	
DB 500-2	500	0,1	3/4"	961-120	

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SAUTER PICTOGRAMS





Adjusting program (CAL):

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



Calibration block:

Standard for adjusting or correcting the measuring device



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 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



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



WLAN 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



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)



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



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 USA version available



Integrated power supply unit: Integrated, 230V/50Hz in EU.

More standards e.g. GB, AUS or USA 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



Verification possible:

Models with type approval for construction of verifiable systems



DAkkS calibration possible:

The time required for DAkkS calibration is shown in days in the pictogram



Factory calibration:

The time required for factory calibration is specified in the pictogram



Package shipment:

The time required for internal shipping preparations is shown in days in the



Pallet shipment:

The time required for internal shipping preparations is shown in days in the pictogram

[→]0+

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