



Torque measurement

There is a fundamental differentiation here between the measurement of static and dynamic rotary forces.

Dynamic rotary force measurement is typically carried out using torque sensors on test objects which are rotated – during the movement.

Static rotary force measurement, on the other hand, is always carried out when the item is at rest.

The SAUTER range includes static torque measuring devices for determining the force expended when opening rotary or screw caps of bottles.

Further typical applications of static torque measuring devices are testing of assembly tools for screws and nuts, in particular torque keys and mechanical assembly tools such as cordless electric screw drivers.



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Quick-Finder

| Measuring range [Max] Nm | Readout [d] Nm | Model SAUTER | Price excl. VAT, ex works € | Page |
|--------------------------|----------------|--------------|-----------------------------|------|
| 0.5 | 0,0001 | DB 0.5-4 | 1490,- | 49 |
| 1 | 0,0002 | DB 1-4 | 1490,- | 49 |
| 1 | 0,0002 | DA 1-4 | 1690,- | 48 |
| 5 | 0,001 | DB 5-3 | 1490,- | 49 |
| 5 | 0,001 | DA 5-3 | 1690,- | 48 |
| 10 | 0,002 | DB 10-3 | 1490,- | 49 |
| 10 | 0,002 | DA 10-3 | 1690,- | 48 |
| 20 | 0,005 | DB 20-3 | 1690,- | 49 |
| 50 | 0,01 | DB 50-2 | 1690,- | 49 |
| 100 | 0,02 | DB 100-2 | 1690,- | 49 |
| 200 | 0,05 | DB 200-2 | 1690,- | 49 |
| 500 | 0,05 | DA 500-2 | 1690,- | 48 |



Comfortable testing of screw tops, e.g. bottles, jars

Features

- **1** Optimised for torque testing of bottles, jars and other packaging with screw tops with a minimum diameter of 15 mm and a maximum diameter of 160 mm, in the food industry and pharmaceutical industry, as well as in the manufacturing of cosmetics such as, for example, lipsticks, etc.
- **2** Quick pin system: The four bottle mounts (holders) are pushed in, instead of being screwed in, to save time. This allows you to reconfigure quickly for other bottle sizes
- Metal housing for continuous use in tough environmental conditions
- **3** Capacity display: A bar lights up to show how much of the measuring range is still available.
- **3** LCD graphics display with backlight
- Rubber feet with anti-slip feature
- Scope of delivery: four bottle mounts with rubber coat, sturdy carrying case
- Internal data memory saves up to 500 measurements. The memory contents can be transferred to the PC using optional software
- **4** USB and RS-232 data interfaces standard
- 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

Technical data

- Selectable units: Nm, lbf-in, kgf-cm, kgf-m, ft-lbf
- Measuring precision: $\pm 0,5\%$ of [Max]
- Measuring frequency: 1000 Hz
- Usable measuring range: 5–100 % of [Max]
- Overload protection: 150 % of [Max]
- Rechargeable battery pack integrated, standard, operating time up to 18 h without backlight, charging time approx. 14 h
- Overall dimensions W×D×H 250×160×100 mm
- Net weight approx. 3 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-1.0, **€ 90,-**
- Force-time data transfer software with graphic display of the measurement process, SAUTER AFH FAST, **€ 115,-**
- USB/PC connection cable, standard, SAUTER FL-A01, **€ 46,-**
- RS-232/PC connection cable, SAUTER FL-A04, **€ 46,-**

STANDARD



OPTION



| Model | Measuring range [Max] Nm | Readout [d] Nm | Diameter test object mm | Price excl. of VAT ex works € | Option Factory calibration certificate | |
|---------------|--------------------------------|----------------------|-------------------------------|--|---|-------|
| | | | | | KERN | € |
| SAUTER DA 1-4 | 1 | 0,0002 | 15–160 | 1690,- ↓ | 961-120 | 170,- |
| DA 5-3 | 5 | 0,001 | 15–160 | 1690,- ↓ | 961-120 | 170,- |
| DA 10-3 | 10 | 0,002 | 15–160 | 1690,- ↓ | 961-120 | 170,- |

↓ Price reduction



03

Convenient way to test the torque of tools

Features

- **1** 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 continuous use in tough 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 at SAUTER DB 0.5-4 up to DB 10-3
- **3** Stable mounting plate for solid fixation at SAUTER DB 20-3 up to DB 500-2
- USB and RS-232 data interfaces standard
- Scope of delivery: Torque pick-up, sturdy carry case, mounting plate (models with [Max] ≥ 20 Nm)
- 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-Funktion 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

Technical data

- Backlit LCD graphics display
- Units can be selected: Nm, lbf-in, kgf-cm, kgf-m, ft-lbf
- Measuring precision: ± 0,5 % of [Max]
- Measuring frequency: 1000 Hz
- Usable measuring range: 5-100 % of [Max]
- Overload protection: 150 % of [Max]
- Rechargeable battery pack integrated, standard, operating time up to 18 h without backlight, charging time approx. 14 h
- Overall dimensions WxDxH 200x100x50 mm
- Net weight approx. 3 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-1.0, **€ 90,-**
- Force-time data transfer software with graphic display of the measurement process, SAUTER AFH FAST, **€ 115,-**
- USB/PC connection cable, standard, SAUTER FL-A01, **€ 46,-**
- RS-232/PC connection cable SAUTER FL-A04, **€ 46,-**

STANDARD



OPTION



| Model | Measuring range [Max] Nm | Readout [d] Nm | Tool fitting mm/Inch | Price excl. of VAT ex works € | Option Factory calibration certificate | |
|-----------------|--------------------------------|----------------------|-------------------------|--|---|-------|
| | | | | | KERN | € |
| SAUTER DB 0.5-4 | 0,5 | 0,0001 | 20 mm & 3/8" | 1490,- ↓ | 961-120 | 170,- |
| DB 1-4 | 1 | 0,0002 | 20 mm & 3/8" | 1490,- ↓ | 961-120 | 170,- |
| DB 5-3 | 5 | 0,001 | 20 mm & 3/8" | 1490,- ↓ | 961-120 | 170,- |
| DB 10-3 | 10 | 0,002 | 20 mm & 3/8" | 1490,- ↓ | 961-120 | 170,- |
| DB 20-3 | 20 | 0,005 | 20 mm & 3/8" | 1690,- ↓ | 961-120 | 170,- |
| DB 50-2 | 50 | 0,01 | 20 mm & 3/8" | 1690,- ↓ | 961-120 | 170,- |
| DB 100-2 | 100 | 0,02 | 3/8" | 1690,- ↓ | 961-120 | 170,- |
| DB 200-2 | 200 | 0,05 | 1/2" | 1690,- ↓ | 961-120 | 170,- |
| DB 500-2 | 500 | 0,05 | 3/4" | 1690,- ↓ | 961-120 | 170,- |

↓ Price reduction