

We measure it.



# Light intensity measuring instrument

testo 540 – Pocket-sized Lux meter

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Sensor adapted to spectral sensitivity of the eye

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Hold-function and max./min. values

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Display illumination

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Illustration 1/1

The sensor in the testo 540 is adapted to the spectral sensitivity of the eye. This makes the testo 540 ideally suited to the measurement of light intensity at workplaces. The hold-function allows the comfortable readout of the measurement values. Max. and min. values are displayed at

the press of a button. The clip-on protective cap, wrist strap and belt holder ensure safekeeping of the instrument. testo 540 is very handy, small and easy to operate.

## Technical data / Accessories

### testo 540

testo 540 handy Lux meter incl. protection cap, batteries and calibration protocol

Part no. 0560 0540



#### Sensor type

**Silicone photodiode**

Meas. range	0 to 99,999 Lux
Accuracy ±1 digit	± 3 % Lux or 3 % of mv (compared to reference Class B, DIN 5032 Part 7)
Resolution	1 Lux (0 to 19.999 Lux) 10 Lux (remaining range)

#### General technical data

Measurement rate	0.5 s
Storage temp.	-40 to +70 °C
Protection class	IP40
Oper. temp.	0 to +50 °C
Battery type	2 batteries Type AAA
Battery life	200 h (average, without display illumination)
Dimensions	133 x 46 x 25 mm
Weight	95 g (incl. batteries and protective cap)
Warranty	1 year

#### Accessories

#### Part no.

##### Accessories for measuring instrument

ISO calibration certificate/light  
Calibration points 0;500;1000;2000;4000 Lux

0520 0010

# Light intensity measuring instrument

testo 545 - Lux meter with measurement site management

- Selection of up to 99 measurement sites
- Logger function
- Point or timed mean value calculation
- Quick documentation on site with Testo fast printer



In order for light to be good light, the light intensity at workplaces, in hospitals, offices or schools must meet certain minimum values.

testo 545 is ideally suitable for testing and monitoring light intensity. Using the software included in delivery, the user can store up to 99 different measurement sites, and connect individually stored light intensity values to a curve. This "light profile" provides information on the regularity of the lighting.

With the integrated logger function, up to 3000 measurement values can be stored in the instrument. This allows the user to monitor the light intensity even over a longer period. The measurement results can be printed out directly on site with the Testo fast printer.

## Technical data / Accessories

### testo 545

testo 545 light meter incl. probe, batteries and calibration protocol

Part no. 0560 0545



#### Sensor type **Silicone photodiode**

Meas. range	0 to +100000 Lux
Accuracy ±1 digit	Accuracy to DIN 13032-1: f1 = 6% = V (Lambda) adaptation f2 = 5% = cos like rating
Resolution	1 Lux (0 to +32000 Lux) 10 Lux (0 to +100000 Lux)

#### General technical data

Display	LCD, 4 lines
PC	RS232 interface
Connection	Fixed cable, coiled
Memory	3000
Oper. temp.	0 to +50 °C
Storage temp.	-20 to +70 °C
Battery type	9V block battery
Battery life	50 h
Dimensions	220 x 68 x 50 mm
Weight	500 g
Material/Housing	ABS
Warranty	1 year

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### Accessories

### Part no.

#### Accessories for measuring instrument

Transport case (plastic) for measuring instrument, probes and accessories for safe and orderly storage	0516 0445	
testo 312 Case for secure storage of measuring instrument for secure storage of measuring instrument	0516 0191	
Testo fast printer IRDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries	0554 0549	
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610	
Spare thermal paper for printer (6 rolls), permanent ink measurement data documentation legible for up to 10 years	0554 0568	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
RS232 cable connects instrument to PC (1.8 m) for data transfer	0409 0178	
ISO calibration certificate/light; Calibration points 0;500;1000;2000;4000 Lux	0520 0010	



# Sound level measuring instrument

testo 815

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Frequency evaluation according to characteristic curves A and C

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Easy to adjust

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Maximum and minimum store

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Switchable time evaluation Fast/Slow

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dB

The testo 815 is the ideal instrument for the evaluation of sound level in everyday work. The instrument can be used for monitoring measurements in the areas of air conditioning or heating, on combustion plants or at workplaces, however machine or discotheque noise can also be evaluated quickly and precisely.

Using the Fast/slow button, the measurement time can be set from 1 s to 125 ms, in order to better evaluate the noise source. The frequency analysis can also be switched from characteristic curve A to C. The characteristic curve A

corresponds to the sound pressure perception of the human ear, whereas characteristic curve C can also evaluate the low-frequency components of a sound.

With the help of the optional calibrator, the measuring instrument can be recalibrated directly on site with the screwdriver provided. The wind protection cap included in delivery ensures correct measurement results when measuring outdoors, and if required can protect the microphone from dirt and dust.

## Technical data / Accessories

### testo 815

testo 815, sound level meter incl. calibration  
screwdriver, wind screen and batteries

Part no. 0563 8155



#### Technical data testo 815

Meas. range	+32 to +130 dB
Frequency range	31.5 Hz to 8 kHz
Accuracy ±1 digit	±1.0 dB
Resolution	0.1 dB
Oper. temp.	0 to +40 °C
Storage temp.	-10 to +60 °C
Battery type	9V block battery
Battery life	70 h
Weight	195 g
Dimensions	255 x 55 x 43 mm
Warranty	1 year

Section meas. ranges: 30 to 80 dB; 50 to 100 dB; 80 to 130 dB  
Time weighting: FAST 125 ms setting / SLOW 1 s setting  
Pressure dependency: -0.0016 dB/hPa

#### Technical data Sound level calibrator

Battery type	9V block battery
Battery life	40 h
Warranty	2 years
Accuracy	±0.5 dB in accordance with Class 2 to IEC 60942

Sound pressure level: 94 dB/104 dB, switchable

Frequency: 1000 Hz

Also suitable for 1/2 and 1 inch microphones by other manufacturers

#### Accessories

#### Part no.

##### Accessories for measuring instrument

Calibrator, for regular calibration of testo 815, testo 816	0554 0452	
ISO calibration cert./sound pressure; calibration point 94 dB at different frequencies	0520 0111	
ISO calibration certificate sound pressure calibrators	0520 0411	

# Sound level measuring instrument

**testo 816 – Sound level measuring instrument with AC/DC output for data readout**

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Frequency evaluation according to characteristic curves A and C

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Easy to adjust

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Maximum and minimum store

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Switchable time evaluation Fast/Slow

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Automatic range switchover

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Bar graph display

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AC and DC outputs for connection to further instruments

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The testo 816 is the ideal sound level measuring instrument for assessors, workplace measurements and for the measurement of industrial and environmental noise.

Using the Fast/Slow button, the measurement time can be set from 1 s to 125 ms, in order to better evaluate the noise source. The frequency analysis can also be switched from characteristic curve A to C. The characteristic curve A corresponds to the sound pressure perception of the human ear, whereas characteristic curve C can also evaluate the low-frequency components of a sound.

The testo 816 also has an AC and DC output. Via the AC output, recorders or amplifiers can be connected directly to the instrument, and via the DC output, graphical recorders

or data loggers can be used easily and directly on site. The analog bar graph display offers the user a fast overview over the complete measuring range.

With the help of the optional calibrator, the measuring instrument can be recalibrated directly on site with the screwdriver provided. The wind protection cap included in delivery ensures correct measurement results when measuring outdoors, and if required can protect the microphone from dirt and dust.

## Technical data / Accessories

### testo 816

testo 816 sound level meter incl. microphone, wind protection cap, battery, stereo jack 3.5 mm in system case with batteries

Part no. 0563 8165



#### Technical data testo 816

Meas. range	+30 to +130 dB
Frequency range	31.5 Hz to 8 kHz
Accuracy ±1 digit	±1.0 dB
Resolution	0.1 dB
Oper. temp.	0 to +40 °C
Storage temp.	-10 to +60 °C
Battery type	9V block battery
Battery life	50 h
Weight	315 g
Dimensions	309 x 68 x 50 mm
Warranty	1 year

Section meas. ranges: 30 to 80 dB; 50 to 100 dB; 80 to 130 dB  
 Time weighting: FAST 125 ms setting / SLOW 1 s setting  
 Pressure dependency: -0.0016 dB/hPa

#### Technical data Sound level calibrator

Battery type	9V block battery
Battery life	40 h
Warranty	1 year
Accuracy	±0.5 dB in accordance with Class 2 to IEC 60942

Sound pressure level: 94 dB/104 dB, switchable  
 Frequency: 1000 Hz  
 Also suitable for 1/2 and 1 inch microphones by other manufacturers

#### Accessories

#### Part no.

##### Accessories for measuring instrument

Calibrator, for regular calibration of testo 815, testo 816	0554 0452	
Mains unit 8V / 1000 mA; with interchangeable mains plugs	0554 1094	
ISO calibration cert./sound pressure; calibration point 94 dB at different frequencies	0520 0111	
ISO calibration certificate sound pressure calibrators	0520 0411	



# Sound level meter

## testo 816-1 – Sound level measurement with integrated data storage

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Sound level measurement acc. to IEC 61672-1 class 2 and ANSI S1.4 Type 2

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Frequency weighting A and C

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Integrated data storage for up to 31000 measurement values

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Software for data management and long-term measurement

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Switchable time weighting Fast/Slow

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Bar graph display

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Backlit display

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AC and DC output for the connection of other instruments

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The testo 816-1 is ideal for sound level measurements at workplaces, in industrial and production halls, and in public places. With the touch of a button, the measuring instrument can be switched from Slow (1 sec.) to Fast (125 ms). It is also possible to switch between the frequency weighting characteristic curves A and C and vice versa, also at the touch of a button. Characteristic curve A corresponds to the sound pressure sensitivity of the human ear, while characteristic curve C can evaluate low-frequency components of a noise.

The integrated data store allows the storage of over 30000 measurement values in the instrument, these can be administered using the software included in delivery. In addition to this, the software allows online measurements over a longer period to be carried out.

With the optional sound calibrator and the adjustment accessory included with it, the testo 816-1 can be re-calibrated on site.

## Technical data / Accessories

### testo 816-1

testo 816-1, sound level meter incl. microphone, wind protection, PC software, connection cable, manual on CD and batteries in system case

Part no. 0563 8170



### Technical data testo 816-1

Measuring range	30 to 130 dB
Frequency range	20 Hz to 8 kHz
Accuracy ±1 digit	±1.4 dB (under reference conditions: 94 dB, 1 kHz)
Resolution	0.1 dB
Frequency weighting	A / C
Microphone	½ inch
Measuring rate	0.5 s
Dynamic range	100 dB
Data storage	approx. 31000 measurements
Operating temperature	0 to +40 °C
Storage temperature	-10 to +60 °C
Battery type	4 x Type AA batteries
Weight	390 g
Dimensions	272 x 83 x 42 mm
Time weighting	FAST 125 ms / SLOW 1 sec
AC/DC output	AC: 1 V RMS at full scale DC: 10 mV/dB

### Technical data sound level calibrator

Battery type	9V block battery
Battery life	40 h
Warranty	1 year
Accuracy	±0.5 dB in accordance with Class 2 to IEC 60942

Sound pressure level: 94 dB/104 dB, switchable

Frequency: 1000 Hz

Also suitable for ½ and 1 inch microphones by other manufacturers

### Accessories for measuring instrument

### Part no.

Calibrator, for regular calibration of testo 815, testo 816, testo 816-1	0554 0452	
ISO calibration cert./sound pressure; calibration point 94 dB at different frequencies	0520 0111	
ISO calibration certificate sound pressure calibrators	0520 0411	