

# Flue gas analyser

**testo 300 - truly smart  
flue gas measurement.**

Large scratch-resistant 5" HD display with smart-touch operation and replaceable protective film

Stored, intuitive menus for all relevant measurements

Optional: extremely durable O<sub>2</sub> sensor and automatic dilution up to 30,000 ppm CO

Ready to measure at the touch of a button in standby mode

4 strong magnets with rubber coating for material friendly mounting

E-mailing of reports directly on site, with integrated customer address book



O<sub>2</sub>

CO/H<sub>2</sub>

°C

mbar

ΔP

NO

## **Truly smart flue gas measurement: this is what the testo 300 stands for.**

The compact flue gas analyser is fully operated via the large touch display. You can see all the measuring values straight away without scrolling. The particularly scratch-resistant screen is embedded in a robust plastic housing which remains reliable even in tough day-to-day working conditions.

Menus for the most important measurements are already stored in the testo 300 and reliably guide you through the

relevant application. The testo 300 flue gas analyser isn't hampered with slow waiting times or start-up phases, it is immediately ready to go at the touch of a button in standby mode. Documentation is dealt with just as quickly – reports can be created and sent directly on site.

Fitted with the 'longlife' cells, the testo 300 offers a 4 year warranty. There is also an optional NO<sub>x</sub> sensor available. The O<sub>2</sub> sensor, fitted in all Longlife models, is extremely durable and an optional automatic dilution up to a maximum of 30,000 ppm CO protects the CO sensor.

## Truly smart: The new testo 300 flue gas analyser.

Providing reliable accurate results is not enough. A contemporary flue gas analyser also makes all work steps as easy as possible for you, both before and after the measurement, as well as during the measurement itself.

The user-friendly testo 300 was developed with precisely this objective in mind. With smart-touch operation, robust construction and e-mailing of reports, the testo 300 will quickly become your indispensable companion for all measuring tasks involving heating systems.

### Operation via smart-touch

The smart-touch display responds immediately without any delay. This allows intuitive operation – just as easy as on your smartphone

### E-mailing of reports

The testo 300 enables the convenient creation of documentation directly on site. And the dictation function even saves you typing in the process. You can send reports to the office or customers straight away via WLAN.

### Keep an eye on all the measuring values

You can see all the system's parameters straight away on the large 5" HD display.

### Get the result faster

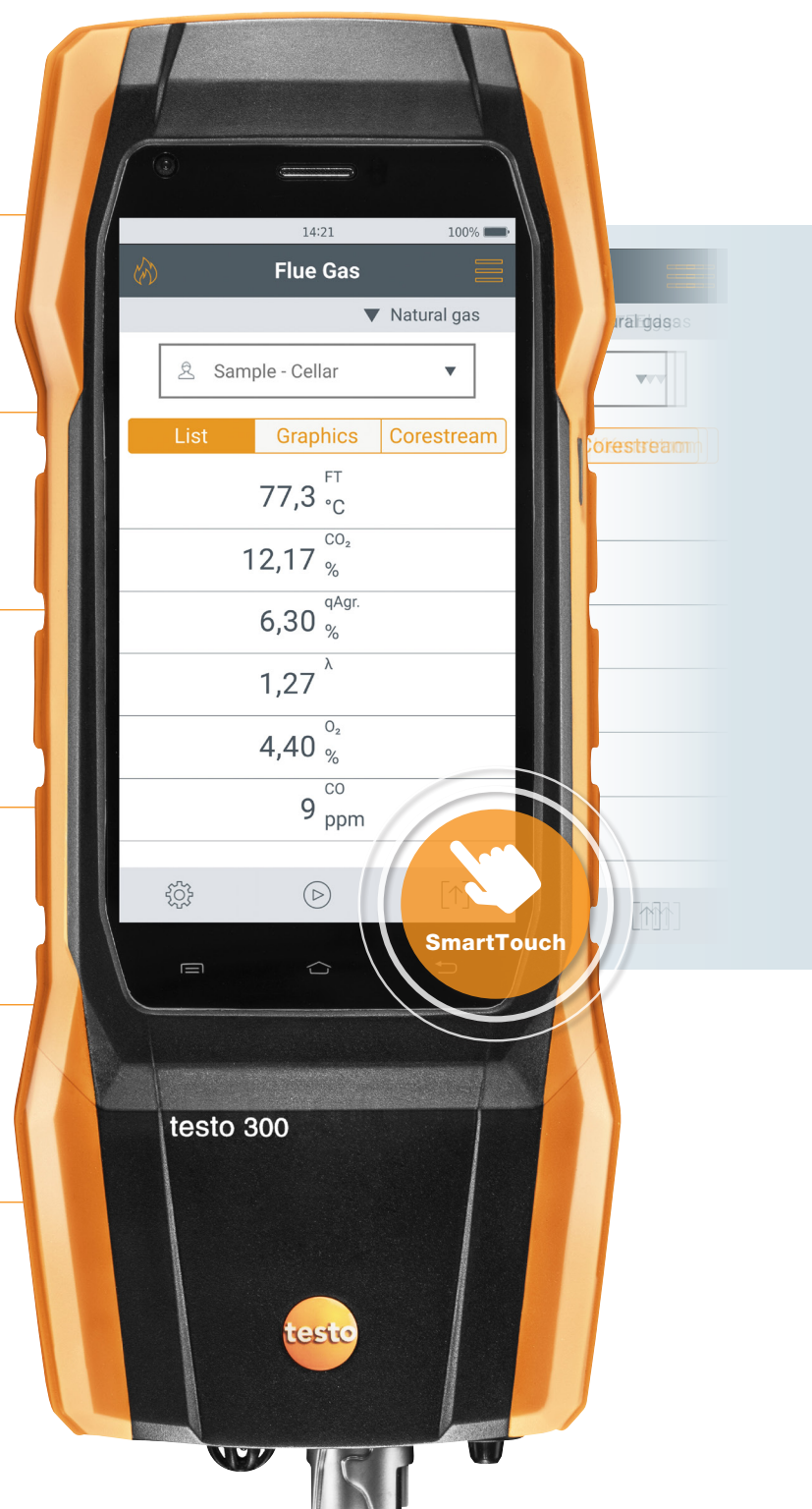
Clearly structured menus for all relevant measurements are already stored in the measuring instrument and guide you efficiently through the application.

### Ready to use straight away

No more waiting time. In standby mode, the testo 300 is ready to measure at the touch of a button.

### Completely worry-free

The testo 300 has quality sensor technology with up to 6 years' service life, measures high CO values up to 30,000 ppm and is future-proofed thanks to NO preparation.



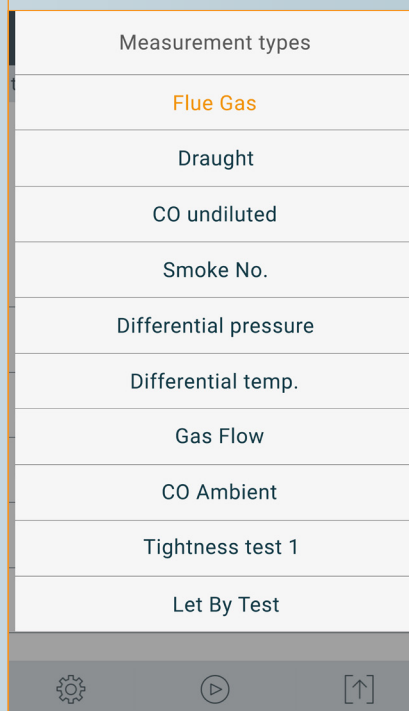
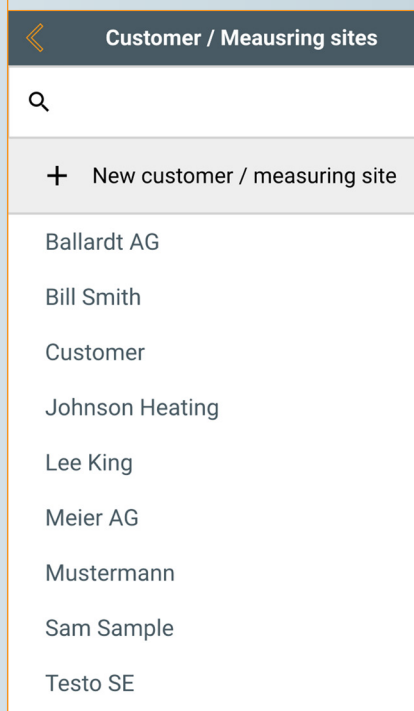
### Customers/measuring points

Integrated address book with details of the relevant heating system (e.g. manufacturer, system type, system name, serial no., fuel, etc.).



### Professional documentation

Create measurement protocols with all the information about readings, customers and heating systems directly on site, add comments to them, have the protocols confirmed by the customer's signature and send the protocols. You can also store your company logo. All PDF reports with all the important information are also saved in the instrument, so that they are always to hand.



### Intuitive measurement menus

Clearly structured and explicit menus for all applications involving heating systems are already stored in the testo 300. This allows you to do your jobs even more efficiently.





## Instrument kits and accessories

testo 300 kits		
Order no.	testo 300 kit	testo 300 kit with printer
	0564 3004 82	0564 3004 83
Instrument, including mains unit	testo 300 fitted with O <sub>2</sub> , CO H <sub>2</sub> , 30,000 ppm, NO sensor - can be retrofitted	testo 300 fitted with O <sub>2</sub> , CO H <sub>2</sub> , 30,000 ppm, NO sensor - can be retrofitted
Probe, including 10 spare filters	Modular flue gas probe (180 mm, Ø 8 mm)	Modular flue gas probe (180 mm, Ø 8 mm)
Printer, including spare paper	–	✓
testo EasyHeat PC software	✓	✓
Instrument case	✓	✓
Warranty	4 years	4 years



Accessories	Order no.
testo Bluetooth®printer, including 1 roll of thermal paper, rechargeable battery and mains unit, for instruments including the testo 300, testo 330i and testo 440	0554 0621
Spare thermal paper for printer, permanent ink	0554 0568
Smoke tester, including oil and soot papers for measuring soot in flue gas, excluding cone (order no. 0554 9010)	0554 0307
Filter paper for determining soot number, 40 measuring strips for approx. 200 measurements	0554 0308
USB mains unit, including USB cable	0554 1105
testo EasyHeat PC software for displaying measurement procedures as diagrams, tables and for customer data management.	0554 3332
ISO calibration certificate for flue gas	0520 0003

Cases and carrying bags	Order no.
Instrument case (height: 130 mm) for instrument, probes and accessories	0516 3300
Instrument case with double base (height: 180 mm) for instrument, probes and accessories	0516 3301
testo 300 instrument bag with carrying strap	0516 3001

## Probes and accessories

Modular flue gas probes	Order no.
Modular flue gas probe, including cone for fixing; thermocouple NiCr-Ni; hose 2.2 m; dirt filter; length 180 mm; Ø 8 mm; Tmax. +500°C, TÜV-tested	0600 9760
Modular flue gas probe, including cone for fixing; thermocouple NiCr-Ni; hose 2.2 m; dirt filter; length 300 mm; Ø 8 mm; Tmax. +500°C, TÜV-tested	0600 9761
Modular flue gas probe, including cone for fixing; thermocouple NiCr-Ni; hose 2.2 m; dirt filter; length 180 mm; Ø 6 mm; Tmax. +500°C	0600 9762
Modular flue gas probe, including cone for fixing; thermocouple NiCr-Ni; hose 2.2 m; dirt filter; length 300 mm; Ø 6 mm; Tmax. +500°C	0600 9763
Flexible flue gas probe; thermocouple NiCr-Ni; hose 2.2 m; dirt filter; length 330 mm; Ø 9 mm; Tmax. +180°C; short-term +200°C; ideal for measurements in difficult-to-access locations	0600 9770
Compact flue gas probes	Order no.
Compact basic flue gas probe, 180 mm, Ø 6 mm, Tmax. +500°C	0600 9740
Compact basic flue gas probe, 300 mm, Ø 6 mm, Tmax. +500°C	0600 9741
Probe accessories and probe filter	Order no.
Modular probe shaft; length 180 mm; Ø 8 mm; Tmax. +500°C	0554 9760
Modular probe shaft; length 300 mm; Ø 8 mm; Tmax. +500°C	0554 9761
Probe shaft; length 335 mm; including cone; Ø 8 mm; Tmax. +1,000°C	0554 8764
Flexible probe shaft; length 330 mm; Ø 9 mm; Tmax. +180°C	0554 9770
Multi-hole probe shaft; length 300 mm; Ø 8 mm; for CO mean value calculation	0554 5762
Multi-hole probe shaft; length 180 mm; Ø 8 mm; for CO mean value calculation	0554 5763
Hose extension; 2.8 m; probe-instrument extension tube	0554 1202
Spare dirt filter, modular probe, 10 off	0554 3385
Spare dirt filter, compact probe, 10 off	0554 0040
Cone with spring clamp and handle option, Tmax. +200°C, Teflon material, Ø 6 mm	0554 3327
Cone with spring clamp and handle option, Tmax. +200°C, Teflon material, Ø 8 mm	0554 3328
More probes and accessories	Order no.
Dual wall clearance probe for O <sub>2</sub> air input measurement	0632 1260
Ambient CO probe (digital), fixed cable	0632 1272
Solid fuel kit, including probe shaft, adapter	0600 9765
Hose connection kit with adapter for testo 300 for separate gas pressure measurement	0554 1203
Pressure connection hose, single, Ø 4/6 mm	0554 0449
Capillary hose kit for 4 Pa measurement (can only be used in combination with 0554 1203)	0554 1215
Pressure test kit for gas pipe test, testo 300, testo 330-1/-2 LL version 2010	0554 1213
Temperature probes	Order no.
Robust combustion air probe with NTC temperature sensor	0615 1712
Clamp probe with NTC temperature sensor for measurements on pipes (Ø 6 to 35 mm)	0615 5505
Pipe wrap probe (NTC) for pipe diameters from 5 to 65 mm	0615 5605
Waterproof immersion/penetration probe with NTC temperature sensor	0615 1212
Temperature probe with Velcro (NTC)	0615 4611

## Technical data

Measurement parameter	Measuring range	Accuracy ( $\pm 1$ digit)	Resolution
<b>O<sub>2</sub> measurement</b>	0 to 21 vol. %	$\pm 0.2$ vol. %	0.1 vol. %
<b>CO measurement (without H<sub>2</sub> compensation)</b>	0 to 4,000 ppm	$\pm 20$ ppm (0 to 400 ppm) $\pm 5\%$ of m.v. (401 to 2,000 ppm) $\pm 10\%$ of m.v. (2,001 to 4,000 ppm)	1 ppm
<b>CO measurement (with H<sub>2</sub> compensation)</b>	0 to 8,000 ppm	$\pm 10$ ppm or $\pm 10\%$ of m.v. (0 to 200 ppm) $\pm 20$ ppm or $\pm 5\%$ of m.v. (201 to 2,000 ppm) $\pm 10\%$ of m.v. (2,001 to 8,000 ppm)	1 ppm
<b>CO measurement (without H<sub>2</sub> compensation and dilution)</b>	0 to 15,000 ppm	$\pm 200$ ppm or $\pm 20\%$ of m.v.	1 ppm
<b>CO measurement (with H<sub>2</sub> compensation and dilution)</b>	0 to 30,000 ppm	$\pm 100$ ppm or $\pm 10\%$ of m.v.	1 ppm
<b>NO measurement</b>	0 to 3,000 ppm	$\pm 5$ ppm (0 to 100 ppm) $\pm 5\%$ of m.v. (101 to 2,000 ppm) $\pm 10\%$ of m.v. (2,001 to 3,000 ppm)	1 ppm
<b>Efficiency testing (Eta)</b>	0 to 120%		0.1%
<b>Flue gas loss</b>	0 to 99.9%		0.1%
<b>CO<sub>2</sub> determination (digital calculation from O<sub>2</sub>)</b>	Display range 0 to CO <sub>2</sub> max.	$\pm 0.2$ vol. %	0.1 vol. %
<b>Draught measurement</b>	-9.99 to +40 mbar	$\pm 0.005$ mbar (0 to 0.1 mbar) $\pm 0.02$ mbar (0.1 to +3.00 mbar) $\pm 1.5\%$ of m.v. (+3.01 to +40 mbar)	0.001 mbar (0 to 0.1 mbar) 0.01 mbar (remaining meas. range)
<b>Pressure measurement</b>	-100 to +200 mbar	$\pm 0.5$ mbar (0 to +50.0 mbar) $\pm 1\%$ of m.v. (+50.1 to +100.0 mbar) $\pm 1.5\%$ of m.v. (+100.1 to +200 mbar)	0.01 mbar
<b>Temperature (instrument)</b>	-40 to +1,200°C	$\pm 0.5^\circ\text{C}$ (0.0 to +100.0°C) $\pm 0.5\%$ of m.v. (remaining meas. range)	0.1°C (-40 to +999.9°C) 1°C (remaining meas. range)
<b>Ambient CO measurement (internal/flue gas probe)</b>	0 to 2,000 ppm	$\pm 10$ ppm (0 to 100 ppm) $\pm 10\%$ of m.v. (101 to 2,000 ppm)	1 ppm
<b>Ambient CO measurement (external with CO probe)</b>	0 to 500 ppm	$\pm 3$ ppm (0 to 29 ppm) $\pm 10\%$ of m.v. (30 to 500 ppm)	1 ppm

### General technical data

Certification	The testo 300 is TÜV-tested according to 1st German Federal Immission Control Ordinance (BImSchV) EN 50379, Parts 1-3		
Storage temperature	-20 to +50°C		
Operating temperature	-5 to +45°C		
Charging temperature	0 to +45°C		
Humidity application range	15 to 90% RH, not condensing		
Power supply	Rechargeable battery, USB mains unit		
Rechargeable battery life	10 hrs		
Protection class	IP 40		
Memory	1 million measuring values		
Display	5.0" touch display, HD 1280*720 pixels, IPS (160 k)		
Weight	Approx. 800 g		
Dimensions	L: 244 mm (including probe connection) H: 59 mm W: 98 mm		
testo 300 Longlife warranty	Instrument/probe/gas sensors O <sub>2</sub> , CO sensor 48 months NO sensor 24 months Thermocouple and rechargeable battery 12 months		
Warranty terms	<a href="https://www.testo.com/guarantee">https://www.testo.com/guarantee</a>		

## Other instruments for heating engineers

### testo Smart Probes Heating Set



Measure and check all heating system temperatures and pressures in conjunction with your smartphone. The robust testo Smart Case enables the measuring instruments to be conveniently transported and ensures that they are always to hand when needed.

- Measurement of gas flow and static pressure
- Non-contact temperature measurement on underfloor heating systems and radiators
- Measurement menu for pressure drop test, including alerts via testo Smart Probes App
- Rapid image documentation with IR temperature readings and measuring spot marking

Set contains testo 115i, testo 510i and testo 805i in a testo Smart Case

Order no 0563 0004

### testo 317-3 CO Monitor



The compact testo 317-3 CO meter is designed to provide you with a quick and reliable means of testing the surrounding air for carbon monoxide.

- Ready to go: no zero phase
- Alarm with adjustable thresholds
- Carry case with belt clip and handstrap
- 3-year CO sensor warranty

Order no 0632 3173

### testo 760-2 TRMS Multimeter



The allrounder for all important electrical measuring tasks. Thanks to the automatic detection of measurement parameters, it offers the greatest possible reliability for every application. You can also measure current in the  $\mu\text{A}$  range and determine the true root mean square using this digital multimeter.

- True root mean square measurement - TRMS
- Current measurement in the  $\mu\text{A}$  range
- Integrated temperature adapter
- Low-pass filter for accurate measurement results on frequency converter controlled motors

Order no 0590 7602

### testo 830 Infrared Thermometer



Allows efficient, non-contact surface temperature measurements to be carried out. The IR thermometer will leave you well equipped, especially for control readings in trade and industry. The gun-style design is easy to handle and the integrated processor provides accurate measurement results.

- Infrared thermometer for non-contact surface temperature measurements
- Easy to use thanks to the gun-style design
- Adjustable emission level

#### testo 830-T1

- 10:1 optics and high resolution processor for accurate measurement results

Order no 0560 8311

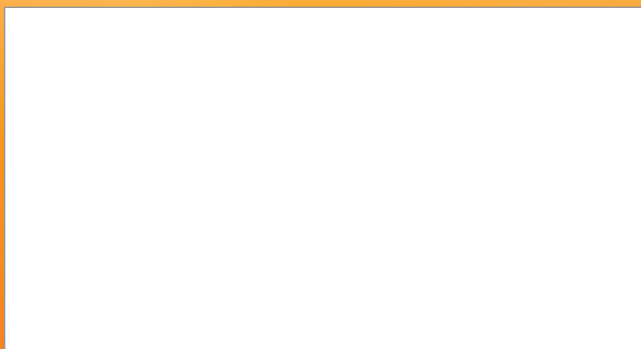
#### testo 830-T2

- 12:1 optics and high resolution processor for accurate measurement results
- Contact measurement possible with connectable temperature probe (TC type K)

Order no 0560 8312

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Subject to change without notice.



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