

# Flue gas analyser

## testo 300

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Intuitive measurement menus with fast-response Smart-Touch display

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Efficient, wireless parallel measurement of up to four testo Smart Probes simultaneously

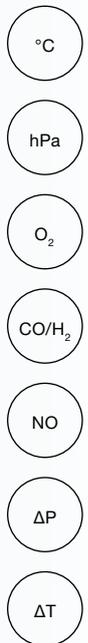
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Practical second screen function and easy data integration into user-specific software

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Documentation on site and reports sent by e-mail via testo Smart App

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The compact testo 300 flue gas analyser is operated completely via the large touch display. You can see all the measuring values straight away on this without scrolling. The particularly scratch-resistant screen is embedded in a robust plastic housing which stands up reliably to the rigours of everyday use. From standby mode, the flue gas analyzer is ready to go at the touch of a button. Menus for the most important measurements are already stored and they guide you safely through the respective application. The testo Bluetooth® Connector enables the efficient, wireless measurement of up to four additional parameters in parallel. The testo Smart Probe 115i for flow and return temperature measurement, the testo Smart Probe 510i for gas flow and static gas pressure measurement and the Smart Probe testo 915i for combustion air temperature measurement are integrated into your testo 300 via the testo Bluetooth® Connector and the measurements can be carried out in parallel with the flue gas analysis. All measurements

appear automatically on the display and can be started and stopped in parallel. Thanks to the practical second-screen function via convenient integration into the testo Smart App, you can keep a constant eye on all the relevant measurement data, even over long distances between the measuring instrument and the burner control. Reports can be created and sent directly on site via the testo 300 and integration in the testo Smart App. You can easily call up the measurements stored on your testo 300 and transfer them to your in-house software (via the previously programmed interface) using the new QR code. In addition, the testo 300 can be equipped with an optional NO sensor. The O<sub>2</sub> sensor installed in all Longlife models is extremely durable and automatic dilution up to max. 30,000 ppm CO protects the CO sensor.

# testo 300 – THERE'S NO ALTERNATIVE

**Why make measurements complicated when you can keep them simple?** The daily work routine is becoming more and more demanding. Time is getting scarcer, while processes are becoming more complex. However, on the other hand, some things unfortunately don't change: Instrument operation and documentation are cumbersome

and time-consuming. But it doesn't have to be that way! Efficient, wireless measurement of up to four additional parameters in parallel via the testo Smart Probes – thanks to testo 300! Featuring a practical second screen and intuitive operation – it really couldn't be easier.

## Intuitive measurement menus

with responsive Smart-Touch display

## Efficient, wireless parallel measurement

of up to 4 Smart Probes simultaneously

## Practical 2nd screen function

and easy data integration into user-specific software

## Documentation on site

and reports sent by e-mail (via App)

## Versatile probes

and fast probe changes by the user

## Magnetic holder to secure the instrument

and robust workmanship

## Ready to measure immediately from standby mode

at the touch of a button

## Measurement report can be signed

on the instrument itself

## High-resolution colour display

## TüV-tested

according to EN50379, part 1 and 3



testo Smart App  
for free download



## Intuitive measurement menus with fast-response Smart-Touch display

The testo 300 makes flue gas measurement unbelievably easy thanks to its intuitive operation. The Smart-Touch display responds immediately without any delay. That allows intuitive operation – just as easy as on your smartphone.



## Efficient, wireless parallel measurement of up to 4 Smart Probes simultaneously

### Wireless parallel measurements in record time

Efficient, wireless measurement of up to four additional parameters in parallel via the testo Smart Probes:

- **testo 510i:** Differential pressure measuring instrument (measurement of gas flow or static pressure)
- **testo 115i:** Temperature measuring instrument (measurement of flow/return temperature with 2 Smart Probes)
- **testo 915i:** Combustion air temperature measurement (time-saving without wired probes or additional measuring instruments)



## Practical second screen function and easy data integration into user-specific software

Thanks to the practical second screen function and integration into the testo Smart App, you can keep a constant eye on all the relevant measurement data, even over long distances between the measuring instrument and the burner control – this saves time and unnecessary journeys. Integrating the data from all readings into your user-specific software is easy: via WLAN/Bluetooth® / App-to-App with the testo 300.



## Instrument models and accessories

testo 300 flue gas analyser						
Order no.	Longlife sensors	O <sub>2</sub> sensor	CO sensor	CO H <sub>2</sub> sensor	NO sensor	Zeroing with probe in flue gas
0564 3002 90	–	✓	4,000 ppm	–	Retrofittable	–
0564 3002 91	–	✓	4,000 ppm	–	Retrofittable	–
300564 3002 01	–	✓	4,000 ppm	–	Retrofittable	–
300564 3002 02	–	✓	4,000 ppm	–	Retrofittable	–

testo 300 Longlife flue gas analyser						
Order no.	Longlife sensors	O <sub>2</sub> sensor	CO sensor	CO H <sub>2</sub> sensor	NO sensor	Zeroing with probe in flue gas
0564 3004 82	✓	✓	8,000 ppm (30,000 ppm via auto dilution)	✓	Retrofittable	✓
0564 3004 89	✓	✓	8,000 ppm (30,000 ppm via auto dilution)	✓	Retrofittable	✓
0564 3004 84	✓	✓	8,000 ppm (30,000 ppm via auto dilution)	✓	✓	✓

### Advantage of Longlife sensors in LL models

High-end sensors with a service life of up to 6 years for intensive use (several times a day). At least one sensor replacement is saved in the course of a normal working life.

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
USB mains unit, including USB cable	0554 1106
testo EasyHeat PC software for displaying measurement procedures as diagrams, tables and for customer data management.	0554 3332

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

testo Bluetooth® Connector	Order no.
testo Bluetooth® Connector for connecting the testo 300 flue gas analyser to testo Smart Probes	0554 3004

When you purchase a new testo 300, the testo Bluetooth® Connector is included in the scope of delivery. The testo Bluetooth® Connector is only designed for connecting testo Smart Probes.

## testo 300 Kits

### testo 300 Handset Only

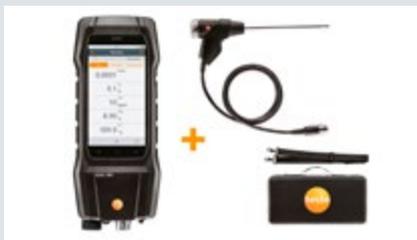
testo 300 flue gas analyser handset O<sub>2</sub>, CO 4,000 ppm, USB bluetooth adaptor for smart probe connection, calibration protocol



Order no. **0633 3002 78**

### testo 300 Standard Kit

All items from testo 300 handset + compact flue gas probe (180mm, Ø 6 mm) and soft transport case



Order no. **0564 3002 90**

### testo 300 Advanced Kit

All items from testo 300 standard kit + 2x clamp probes (NTC) for temperature measurements on pipes (Ø 6-35 mm) cable length 1.4 m, Pressure connection kit with 2 silicone hoses



Order no. **0564 3002 91**

### testo 300 Smart Kit

All items from testo 300 standard kit + 2x testo 115i bluetooth pipe thermometers, 1x testo 510i bluetooth manometer, 1x pressure connection set



Order no. **300564 3002 01**

### testo 300 Ultra Smart Kit

All items from testo 300 smart kit + 1x testo 316i gas leak detector



Order no. **300564 3002 02**

### testo 300 Upgrade Kit

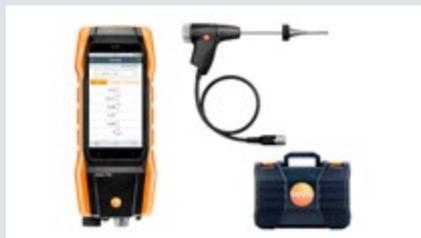
For testo 300 owners - testo USB bluetooth adaptor (allows smart probe connection,) 2x testo 115i clamp thermometers, testo 510i manometer



Order no. **300564 3002 03**

### testo 300LL Standard Kit

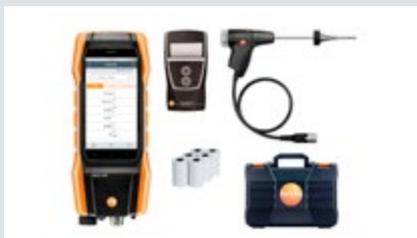
testo 300LL handset, USB bluetooth adaptor for smart probe connection, modular flue gas probe USB, mains unit, including cable, hard case, spare dirt filters for flue gas probe



Order no. **0564 3004 82**

### testo 300LL Standard Kit + Printer

All items from testo 300LL standard kit + testo Bluetooth® printer, spare thermal paper



Order no. **0564 3004 89**

### testo 300LL NOx Kit + Printer

All items from testo 300LL standard kit + testo Bluetooth® printer, spare thermal paper, NO sensor



Order no. **0564 3004 84**

## Probes and accessories

<b>Modular flue gas probes</b>	<b>Order no.</b>
Modular flue gas probe, including probe stop 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 probe stop 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 probe stop 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 probe stop 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

<b>Compact flue gas probes</b>	<b>Order no.</b>
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

<b>Probe accessories and probe filters</b>	<b>Order no.</b>
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 probe stop cone; Ø 8 mm; Tmax. +1,000 °C	0554 8764
Probe shaft; length 700 mm; including probe stop cone; Ø 8 mm; Tmax. +1,000 °C	0554 8765
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 averaging	0554 5762
Multi-hole probe shaft; length 180 mm; Ø 8 mm; for CO averaging	0554 5763
Hose extension; 2.8 m; probe-instrument extension line	0554 1202
Spare dirt filter, modular probe, 10 off	0554 3385
Spare dirt filter, compact probe, 10 off	0554 0040
Probe stop cone with spring clamp and handle, Tmax. +200 °C, material Teflon, Ø 6 mm	0554 3327
Probe stop cone with spring clamp and handle, Tmax. +200 °C, material Teflon, Ø 8 mm	0554 3328

<b>More probes and accessories</b>	<b>Order no.</b>
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

<b>Temperature probes</b>	<b>Order no.</b>
Combustion air temperature probe with 190 mm probe shaft, including probe stop cone and magnetic holder for securing	0600 9799
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

# testo Smart Probes

testo Smart Probes	Order no.
<b>testo 510i</b> , differential pressure measuring instrument with smartphone operation, including hose kit (Ø 4 mm and 5 mm) with adapter, batteries and calibration protocol	0560 1510
<b>testo 115i</b> , clamp thermometer with smartphone operation, for measurements on pipes of 6 to max. 35 mm diameter, including batteries and calibration protocol	0560 2115 02
Wireless Smart Probe <b>testo 915i</b> with air probe (TC Type K), including batteries and calibration protocol	0563 3915

## Technical data

Measurement parameter	Measuring range	Accuracy (±1 digit)	Solution
<b>O<sub>2</sub> measurement</b>	0 to 21 vol.%	±0.2 vol.%	0.1 vol.%
<b>CO measurement (without H<sub>2</sub> compensation)</b>	0 to 4,000 ppm	±20 ppm (0 to 400 ppm) ±5% of m.v. (401 to 2,000 ppm) ±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	±10 ppm or ± 10% of m.v. (0 to 200 ppm) ±20 ppm or ± 5% of m.v. (201 to 2,000 ppm) ±10% of m.v. (2,001 to 8,000 ppm)	1 ppm
<b>CO measurement (without H<sub>2</sub>-compensation with dilution)</b>	0 to 15,000 ppm	±200 ppm or ± 20% of m.v.	1 ppm
<b>CO measurement (with H<sub>2</sub> compensation and dilution)</b>	0 to 30,000 ppm	±100 ppm or ± 10% of m.v.	1 ppm
<b>CO<sub>low</sub> measurement (with H<sub>2</sub> compensation)</b>	0 to 500 ppm	±2 ppm (0 to 40 ppm) ±5% of m.v. (remaining measuring range)	0.1 ppm
<b>NO measurement</b>	0 to 3,000 ppm	±5 ppm (0 to 100 ppm) ±5% of m.v. (101 to 2,000 ppm) ±10% of m.v. (2,001 to 3,000 ppm)	1 ppm
<b>NO<sub>low</sub> measurement</b>	0 to 300 ppm	±2 ppm (0 to 39.9 ppm) ±5% of m.v. (40 to 300 ppm)	0.1 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.	±0.2 vol.%	0.1 vol.%
<b>Draught measurement</b>	-9.99 to +40 hPa	±0.005 hPa (0 to 0.1 hPa) ±0.02 hPa (0.1 to +3.00 hPa) ±1.5% of m.v. (+3.01 to +40 hPa)	0.001 hPa (0 to 0.1 hPa) 0.01 hPa (remaining meas. range)
<b>4 Pa measurement (for instruments with dilution)</b>	-50 to +50 Pa	±0.3 Pa (< 10 Pa) ±3% of m.v. (remaining measuring range)	0.1 Pa
<b>Pressure measurement</b>	-100 to +200 hPa	±0.5 hPa (0 to +50.0 hPa) ±1 % of m.v. (+50.1 to +100.0 hPa) ±1.5% of m.v. (+100.1 to +200 hPa)	0.01 hPa
<b>Temperature (instrument)</b>	-40 to +1200 °C	±0.5 °C (0.0 to +100.0 °C) ±0.5% of m.v. (remaining measuring range)	0.1°C (-40 to +999.9°C) 1 °C (remaining measuring range)
<b>Ambient CO measurement (internal/flue gas probe)</b>	0 to 2,000 ppm	±10 ppm (0 to 100 ppm) ±10% of m.v. (101 to 2,000 ppm)	1 ppm
<b>Ambient CO measurement (external with CO probe)</b>	0 to 500 ppm	±3 ppm (0 to 29 ppm) ±10% of m.v. (30 to 500 ppm)	1 ppm

# Technical data

## 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, non-condensing
Power supply	Rechargeable battery, USB mains unit
Rechargeable battery life	10 h
Protection class	IP 40
System requirements	Requires iOS 11.0 or newer, Android 6.0 or newer, mobile device with Bluetooth 4.0
Wireless range	Up to 100m with no obstructions
Testo BT Connector	Interface for connecting testo Smart Probes to the measuring instrument
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 warranty	Instrument/probe/gas sensors O <sub>2</sub> , CO sensor 36 months Thermocouple and rechargeable battery 12 months
testo 300 Longlife warranty	Instrument/probe/gas sensors O <sub>2</sub> , CO sensor 60 months NO, NO <sub>low</sub> , CO <sub>low</sub> sensor 24 months Thermocouple and rechargeable battery 12 months
Warranty terms and conditions	<a href="https://www.testo.com/guarantee">https://www.testo.com/guarantee</a>