



Committing to the future

testo 330-2
testo 330-2 LL

Cutting Edge Technology for Customer Service and Maintenance Technicians

More robust, longer-living, faster and safer, thanks to an extended sensor life

NEW!

L 4 years warranty
on instrument and probe



°C

hPa

O₂

CO/H₂

NO

ΔP



EN 50379-2 and 1. BImSchV/KÜO
TÜV tested for O₂, °C, hPa
TÜV By RgG 251 for testo 330-2 LL
TÜV By RgG 237 for testo 330-2

Highest longevity with even more assurance!

Revolutionary: Testo launches a new generation of measuring cells!

Reduced after-costs!

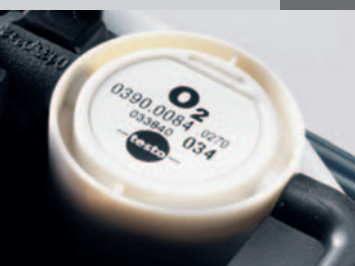
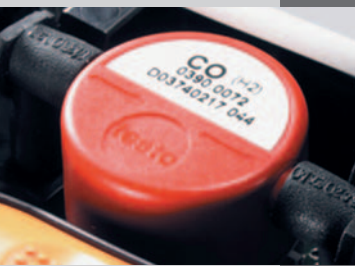
Thanks to the extended sensor life of up to 6 years for O₂ and CO in the testo 330-2 LL, the after-costs for the user are greatly reduced. At least one change of O₂ and CO cell can be omitted during the typical phase of usage of the instrument. In addition to this, Testo gives a warranty of 4 years on the complete instrument (testo

330-2 LL incl. O₂ and CO measurement cells and probe).

Exception: Wearing parts such as filter, thermocouple (12 months), NO/NO_{low} cell (24 months)

More assurance!

Thanks to the longer life of the complete instrument testo 330-2 LL, downtime - e.g. due to exhausted sensors - is drastically reduced. The instrument stays ready for use and free from malfunctions for longer.



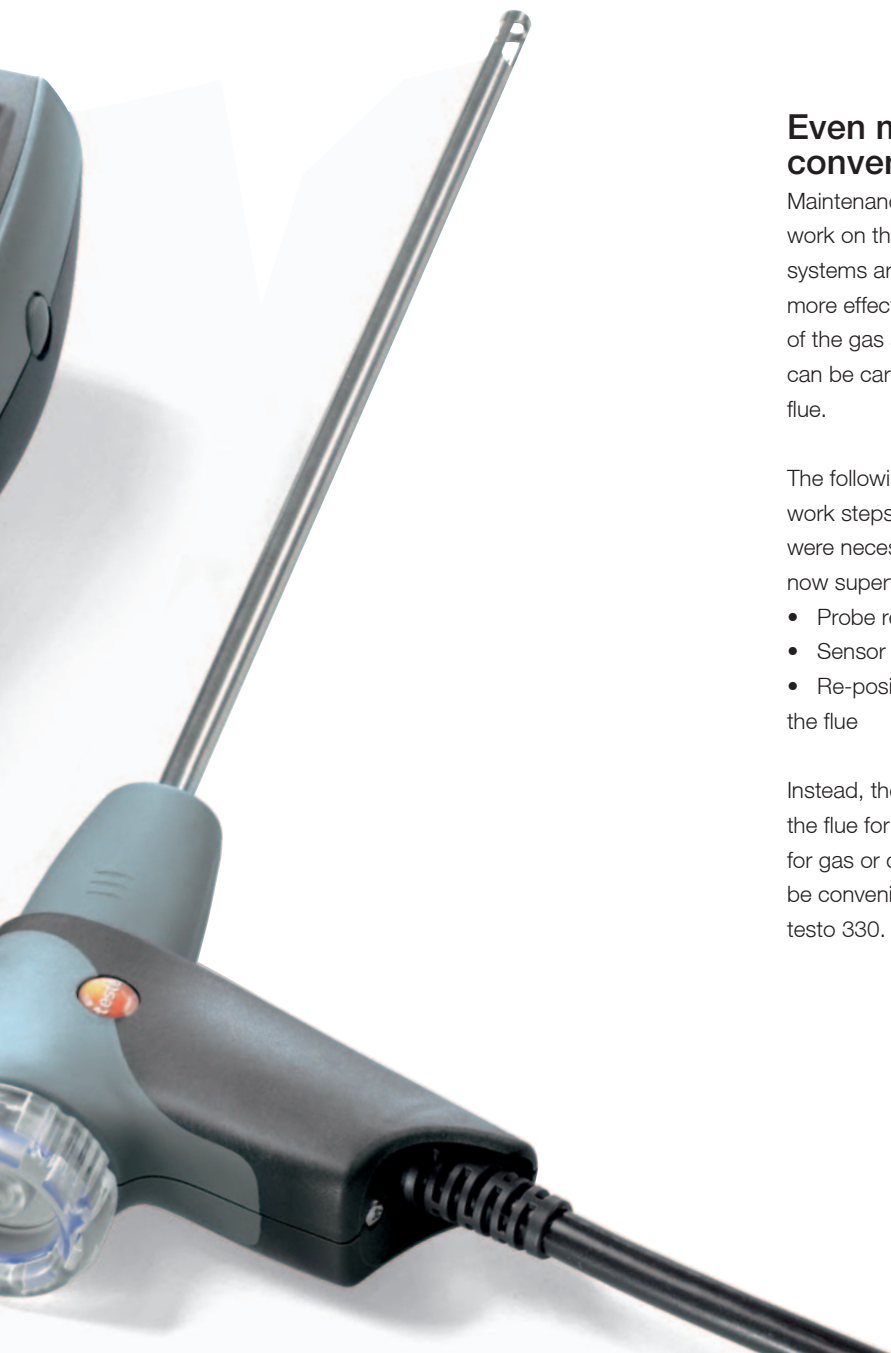
The heart of the new testo 330-2 LL

With the development of the new longlife sensors, Testo have once again proven their innovative spirit.

The O₂ Longlife sensor distinguishes itself from the

standard sensor through its even more robust design, an improved diffusion barrier for the protection of the anode material, and a lead-free metal alloy. This makes it not only longer living but also environmentally more friendly.

An additional feature of the new CO Longlife sensor is also the exchangeable NO filter.



Even more convenience

Maintenance and monitoring work on the most diverse systems are now even faster and more effective, since the zeroing of the gas and draught sensors can be carried out directly in the flue.

The following time-consuming work steps, which up to now were necessary for zeroing, are now superfluous:

- Probe removal
- Sensor zeroing
- Re-positioning of the probe in the flue

Instead, the probe can remain in the flue for each zeroing, whether for gas or draught zeroing, and be conveniently zeroed from the testo 330.



The right accessories for every application



The probes

The robust probe handle which fits comfortably in your hand facilitates easy positioning. The probe has a quick connection function ensuring that all gas paths are connected correctly. The particle filter accommodated in the handle blocks out particles efficiently. Additionally, the probes require little or no maintenance and are easy to clean. Different lengths and diameters ensure a high flexibility level for all applications. When changing the probe, the probe shaft is simply attached to the probe handle and clicks into place. The multi-hole

and dual wall clearance probe round off our wide range of flue gas probes. The ambient CO probe as well as the CO₂ probe are recognised automatically by the analyser and the measurement results immediately appear in their own graphically supported menu. Furthermore, the user-defined alarm limit is coupled with an audible signal. Measurements can be carried out in their entirety simultaneously with flue gas measurement. The gas leak detection probe which can be attached to the

analyser also has a user-defined alarm limit. A warning signal is triggered if the limit is exceeded. The probe is also recognised automatically and the results are shown in a trend graph in their own menu.



User-friendly!

The new, highly robust fast probe connection for all gas paths eliminates any confusion. The single cable cannot be bent, is indestructible and saves space. The menu-driven operational procedures - in compliance with standards - help you to avoid

errors and save you time. The very large display is a perfect additional aid.

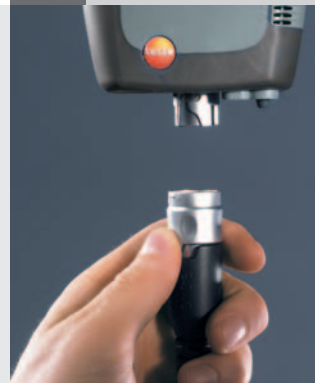




Illustration not obligatorily identical

At a glance

The sets for customer service and maintenance technicians

Testo has put together a special set for customer service and maintenance technicians. Of course, it is always possible to add to and supplement the set by selecting from the wide range of accessories available.

The new Longlife set

- Exhaust gas analyser testo 330-2 LL incl. rech. battery and calibration protocol
- Mains unit 100-240 V for mains operation for charging the battery in the instrument
- Modular exhaust gas probe, immersion depth 300 mm, Ø 8 mm
- Combustion air temperature probe, immersion depth 190 mm
- Hose connection set for separate gas pressure measurement
- Report printer IRDA
- Flexible probe shaft length 300 mm, Ø 10 mm, Tmax 500 °C
- Basic system case for instrument, probes and accessories

Part no. 0563 3325 70

Our classic

- testo 330-2 flue gas analyser incl. rechargeable battery and calibration protocol
- 100-240 V mains unit for mains operation or battery recharging in instrument
- Modular flue gas probe, immersion depth: 300 mm, ø 8 mm
- Combustion air temperature probe, 190 mm long
- Hose connection set for separate gas pressure measurement
- IRDA printer
- Smoke tester incl. oil, soot sheets and reference scale
- Basic system case for analyser, probes and accessories

Part no. 0563 3315 70

Always a step ahead

testo 330-2 / testo 330-2 LL at a glance

Instrument diagnosis

- Automatic instrument leak test
- Rechargeable battery status display
- Sensor status display
- Monitoring of condensate trap level with "FULL" message
- Display of pump capacity (l/min.)
- Display of error status incl. description and diagnosis
- Display of last maintenance
- Display of instrument temperature
- Operating hour counter

Additional measurement tasks

- ΔT measurement, flow/return
- Ambient CO measurement
- Ambient CO₂ measurement
- Detection of gas leaks with gas leak detection probe
- ΔP measurement for gas pressure
- Gas/oil flow rate determination

Automatic menu selection

- Recognition of connected probe

Initialisation of flue gas sensors without removal of probes

- The probe can remain in the flue during initialisation
- Draught zeroing without removal of the probe (testo 330-2 LL only). The probe can remain in the flue during zeroing

Memory management

- 200 meas. data records with address and systems no.
- Several measurement data records per system number are possible
- Read in using barcode reader
- IRDA interface for data transfer to PDA/Notebook
- USB interface for data transfer to PC
- ZIV driver for all conventional branch software

Additional features

- Interface to Testo Software with analysis and graphics functions and online measurement
- Interface to burners
- Calculated parameter: Flue gas dewpoint
- Graphics display
- Integrated impact protection with magnet, recessed display
- Protection class: IP40
- Rechargeable battery lifetime > 6 h with pump operating
- Battery rechargeable separately and in instrument
- Adjustable alarm thresholds for ambient CO/CO₂ measurement

TÜV testing / EN norm

- Accuracy tested for O₂, CO₂, CO, NO, NO_{low}, hPa
- TÜV By RgG 237 for testo 330-2, TÜV By RgG 251 for testo 330-2 LL acc.to 1. BImSchV/KÜO / EN 50379 Part 2 for O₂, °C, hPa and CO



Technical Data			
Temperature	Meas. range	-40 to +1200 °C	
	Accuracy	±0,5 °C (0.0 to +100.0 °C) ±0,5 % of mv (remaining range)	
	Resolution	0.1 °C (-40 to 999,9 °C) 1 °C (remaining range)	
Draught measurement	Meas. range	-9.99 to +40 hPa	
	Accuracy	±0.02 hPa or ±5 % of mv (-0.50 to +0.60 hPa) ±0.03 hPa (+0.61 to +3.00 hPa) ±1.5 % of mv (+3.01 to +40.00 hPa)	
	Resolution	0.01 hPa	
Pressure measurement	Meas. range	0 to 200 hPa	
	Accuracy	±0.5 hPa (0.0 to 50.0 hPa) ±1 % of mv (50.1 to 100.0 hPa) ±1.5 % of mv (remaining range)	
	Resolution	0.1 hPa	
O ₂ measurement	Meas. range	0 to 21 Vol. %	
	Resolution	0.1 Vol. %	
	Accuracy	±0.2 Vol. %	
	Adjustment time t ₉₀	< 20 s	
CO measurement (H ₂ compensated)	Meas. range	0 to 8000 ppm	
	Resolution	1 ppm	
	Accuracy	±10 ppm or ±10% of mv (0 to 200 ppm) ±20 ppm or ±5% of mv (201 to 2000 ppm) ±10% of mv (2001 to 8000 ppm)	
	Adjustment time t ₉₀	< 40 s	
	from 8000 ppm	Display range	8000 to 30000 ppm (automatic dilution)
	Resolution	500 ppm	
Efficiency (Eta)	Meas. range	0 to 120 %	
	Resolution	0.1 %	
Flue gas loss	Meas. range	0 to 99.9 %	
	Resolution	0.1 %	
CO ₂ measurement	Display range	0 to CO ₂ max	
	Resolution	0.1 Vol. %	
	Accuracy	±0.2 Vol. %	
	Determination	Digital calculation from O ₂	
	Adjustment time t ₉₀	< 40 s	
Option: NO _{low} measurement	Meas. range	0 to 300 ppm	
	Resolution	0.1 ppm	
	Accuracy	±2 ppm (0.0 to 40.0 ppm) ±5% of mv (remaining range)	
	Adjustment time t ₉₀	< 30 s	
Option: NO measurement	Meas. range	0 to 3000 ppm	
	Resolution	1 ppm	
	Accuracy	±5 ppm (0 to 100 ppm) ±5% of mv (101 to 2000 ppm) ±10% of mv (2001 to 3000 ppm)	
	Adjustment time t ₉₀	< 30 s	
Ambient CO measurement (with CO probe)	Meas. range	0 to 500 ppm	
	Resolution	1 ppm	
	Accuracy	±5 ppm (0 to 100 ppm) ±5% of mv (>100 ppm)	
	Adjustment time t ₉₀	Approx. 35 s	
Gas leak measurement for combustible gases (with gas leak detection probe)	Display range	0 to 10,000 ppm CH ₄ / C ₃ H ₈	
	Signal	Optical display (LED) audible display via buzzer	
	Adjustment time t ₉₀	< 2 s	
Ambient CO ₂ measurement (with ambient CO ₂ probe)	Meas. range	0 to 1 Vol. % 0 to 10000 ppm	
	Accuracy	±(50 ppm ±2 % of mv) (0 to 5000 ppm)	
	Adjustment time t ₉₀	Approx. 35 s	
General Technical Data	Memory	200 Sites	
	Weight	600 g (without rechargeable battery)	
	Dimensions	270 x 90 x 65 mm	
	Storage temp.	-20 to +50 °C	
	Oper. temp.	-5 to +45 °C	
	Display	Graphics display: 160 x 240 pixel	
	Power supply	Rech. block: 3.7V/2.2Ah Power: 6V/1.2A	
Warranty	testo 330-2	Instrument/probe/cells (O ₂ , CO, NO, NO _{low})	24 months
		Thermocouple and rechargeable battery	12 months
	testo 330-2 LL	Instrument/probe/cells (O ₂ , CO)	48 months
		NO, NO _{low} cell Thermocouple and rechargeable battery	24 months 12 months



Fax Order Form

Qty.	Instrument/options	Best.-Nr.
	testo 330-2 flue gas analyser incl. rechargeable battery and calibration protocol	0632 3302
	testo 330-2 LL flue gas analyser with Longlife cells with integrated draught and gas zeroing, incl. rech. batt. and calibration protocol	0632 3305
	Option: Fine draught measurement, Resolution 0.1 Pa, measurement range to 100 Pa (instead of the standard draught measurement)	0440 3921
	Option: NO meas. cell, meas. range 0 to 3000 ppm, 1 ppm resolution	0440 3922
	Option: NOlow meas. cell, meas. range 0 to 300 ppm, 0.1 ppm resolution	0440 3931
Qty.	Set testo 330-2 LL: Pro analysis: Customer service/technicians	Best.-Nr.
	<ul style="list-style-type: none"> Exhaust gas analyzer testo 330-2 LL incl. rech. battery and calibration protocol Mains unit 100-240 V for mains operation for charging the battery in the instrument Modular exhaust gas probe, immersion depth 300 mm, Ø 8 mm Combustion air temperature probe, immersion depth 190 mm Hose connection set for separate gas pressure measurement Report printer IRDA Flexible probe shaft length 300 mm, Ø 10 mm, Tmax 500 °C Basic system case for instrument, probes and accessories 	0563 3325 70
Qty.	testo 330-2 Set: Pro flue gas analysis: Customer service/technicians	Best.-Nr.
	<ul style="list-style-type: none"> testo 330-2 flue gas analyser incl. rechargeable battery and calibration protocol 100-240 V mains unit for mains operation or battery recharging in instrument Modular flue gas probe, immersion depth: 300 mm, Ø 8 mm Combustion air temperature probe, 190 mm long Hose connection set for separate gas pressure measurement IRDA printer Smoke tester incl. oil, soot sheets and reference scale Basic system case for analyser, probes and accessories 	0563 3315 70
Qty.	Spare measurement cells	Best.-Nr.
	Spare O2 measurement cell for testo 330-2	0390 0092
	Spare CO measurement cell (H2 compensated) for testo 330-2	0390 0109
	Spare NOlow measurement cell 0 to 300 ppm for testo 330-2/-2 LL	0390 0094
	Spare NO measuring cell 0-3000 ppm für testo 330-2/-2 LL	0390 0074
	O2 measurement cell für testo 330-2 LL	0390 0061
	CO measurement cell für testo 330-2 LL	0390 0090
	Upgrade: NO meas. cell, meas. range 0 to 3000 ppm, 1 ppm resolution für testo 330-2/-2 LL	0554 3922
	Upgrade: NOlow meas. cell, meas. range 0 to 300 ppm, 0.1 ppm resolution für testo 330-2/-2 LL	0554 3931
Qty.	Upgrade testo 330-2 to testo 330-2 LL (only possible by Testo service!)	Part no.
	Upgrade testo 330-2 to testo 330-2 LL consisting of	
	Option code upgrade testo 330-2 to testo 330-2 LL	0450 1100
	Upgrade O2 LL measurement cell	0554 3938
	Upgrade CO LL measurement cell	0554 3937
Qty.	Accessories	Best.-Nr.
	100-240 V mains unit for mains operation or batt. recharging in analyser	0554 1086
	Spare rech. batt. w/ charging station	0554 1087
	Testo printer with wireless IRDA and infrared interface, 1 roll of thermal paper and 4 AA batteries	0554 0547
	Testo IrDA printer with bidirectional IrDA interface and rech. battery, for communication testo 330 and PDA	0554 0548
	Spare thermal paper for printer (6 rolls), permanent ink	0554 0568
	Barcode reader to read in customer number on site	0554 0461
	Barcode labels, self-adhesive (1200 off)	0554 0411
	Adhesive pockets (50 off) for printout, paper barcode labels...	0554 0116
	Instrument cleaner (100 ml)	0554 1207
	Smoke tester with oil, soot sheet, for measuring soot in flue gas	0554 0307
	Hose connection set for separate gas pressure measurement	0554 1203
	Differential temperature set consisting of 2 pipe clamp probes and adapter	0554 1204
	Spare particle filter (10 off)	0554 3385
	Full version EasyHeat (PC software)	0554 3332
	Upgrade EasyHeat Mobile for PDA	0554 1211
	Full version EasyHeat + EasyHeat Mobile (for PC und PDA)	0554 1210
	USB connection cable, instrument to PC	0449 0047
	ISO calibration certificate/flue gas	0520 0003

Qty.	Cases	Best.-Nr.
	Basic system case for analyser, probes and accessories	0516 3330
	Basic system case with two levels for analyser, probes and additional accessories	0516 3331
	Product system case with small plastic boxes without contents, can be interlocked to basic system case	0516 0328
	Tools system case with tools section without content, can be interlocked to basic system case	0516 0329
	Universal system case w/o pockets, can be interlocked to basic system case	0516 0331
	Measurement case (leather) with drawers for instruments and accessories	0516 0303

Qty.	Probes	Part no.
	Modular flue gas probes, available in 2 lengths, incl. positioning cone, NiCr-Ni thermocouple, 2.2 m hose and particle filter	
	Flue gas probe 180 mm long, Ø 8 mm, Tmax 500 °C	0600 9760
	Flue gas probe 300 mm long, Ø 8 mm, Tmax 500 °C	0600 9761
	Flue gas probe 180 mm long, Ø 6 mm, Tmax 500 °C	0600 9762
	Flue gas probe 300 mm long, Ø 6 mm, Tmax 500 °C	0600 9763
	Probe accessories	
	Probe shaft 180 mm long, Ø 8 mm, Tmax 500 °C	0554 9760
	Probe shaft 180 mm long, Ø 6 mm, Tmax 500 °C	0554 9762
	Probe shaft 300 mm long, Ø 8 mm, Tmax 500 °C	0554 9761
	Probe shaft 300 mm long, Ø 6 mm, Tmax 500 °C	0554 9763
	Probe shaft, 335 mm long, with probe stop, Ø 8 mm, Tmax 1000 °C	0554 8764
	Probe shaft, 700 mm long, with probe stop, Ø 8 mm, Tmax 1000 °C	0554 8765
	Flexible probe shaft 330 mm long, Ø 10 mm, Tmax 500 °C	0554 9764
	Multi-hole probe shaft, 300 mm long, Ø 8 mm, for mean CO calculation	0554 5762
	Multi-hole probe shaft, 180 mm long, Ø 8 mm, for mean CO calculation	0554 5763
	Hose extension, 2.8 m, extension cable for probe and analyser	0554 1202
	6 mm probe stop, PTFE, with spring clamp and handle, Tmax 200 °C	0554 3327
	8 mm probe stop, PTFE, with spring clamp and handle, Tmax 200 °C	0554 3328
	8 mm probe stop, steel, with spring clamp and handle, Tmax 500 °C	0554 3330
	6 mm, probe stop, steel, with spring clamp and handle, Tmax 500 °C	0554 3329

Additional probes		
	Dual wall clearance probe	0632 1260
	Gas leak probe	0632 3330
	Ambient CO probe	0632 1247
	Ambient CO2 probe	0632 1240
	Connection cable	0430 0143
Combustion air temperature probe		
	Combustion air temperature probe, immersion depth 300 mm	0600 9791
	Combustion air temperature probe, immersion depth 190 mm	0600 9787
	Combustion air temperature probe, immersion depth 60 mm	0600 9797
Additional temperature probes		
	Mini ambient air probe	0600 3692
	Pipe clamp probe	0600 4593
	Quick-action surface probe	0604 0194
	Connection cable	0430 0143

Sender

Name	Address
Company	City
Department	Date, Signature