

New

Standard flue gas analyzer

testo 320 – Standard flue gas analyzer.
Clear data. Streamlined workflows.
Access your data anywhere. Get your job
done faster – every day.



°F

NO

inHg

ΔP

O₂

ΔT

CO

– Clear view at a glance

Large 5.5" touchscreen with
real-time data

– Streamlined workflows

App-like interface with step-by-step
guidance for fast navigation and
consistent results

– testo Smart App integration

Remote control, second screen
and fast reporting on site

– Centralized data management

Connecting measurements, jobs
and devices in one system via testo
Smart Connect

– Parallel measurements

Capture multiple values at once
for faster daily work.

– All-day operation

Long battery life and fast charging
for uninterrupted use throughout the
working day

The testo 320 supports HVAC/R professionals in their daily work. With a wide range of systems, increasing time pressure and the need for efficient processes, reliable and easy-to-use measurement solutions are essential. By combining intuitive operation with connected systems, the testo 320 helps simplify routine tasks and deliver consistent results.

With the testo Smart App, measurements can be controlled, documented and reported directly on site – including remote control and fast reporting. With testo Smart Connect, all measurement data is centrally managed in the cloud, connecting measurements, jobs and devices in one system and providing full transparency and easy access across teams and locations.

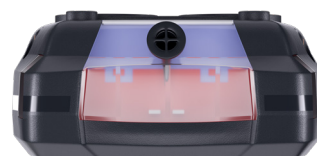
Designed for efficient daily operation, the testo 320 delivers reliable performance with sensors developed by Testo for standard HVAC/R applications. The large 5.5" touchscreen provides a clear view of all measurement data at a glance, while streamlined workflows guide users step by step and ensure fast navigation and easy handling.

This combination of usability and efficiency reduces effort, minimizes errors and enables faster workflows. Parallel measurements allow multiple values to be captured simultaneously, further increasing efficiency in daily work. Long battery life and fast USB-C charging ensure uninterrupted operation throughout the working day – minimizing downtime and keeping workflows moving.



Technical data

Storage temperature	-4 to 122 °F
Operating temperature	23 to 113 °F
Charging temperature	32 to 95 °F
Humidity application range	15... 90 %RH (non-condensing)
Power supply	Rechargeable battery, USB mains unit
Rechargeable battery life	10 h
Quick charge	Charge time / operating time: 20 min / ~60 min (77 °F)
Protection class	IP40
System requirements	iOS ≥17.0 / Android ≥14.0; Bluetooth ≥4.2
Wireless range	Up to 328 ft with no obstructions
Wireless probe connection	4 Bluetooth® probes connectable: Smart Probes (°F, Delta P), CO + CO ₂ probes
Memory	≤1,000,000 readings
Display	5.5" IPS touchscreen, 1268 × 702 pixels
Weight	approx. 1.5 lb
Dimensions (incl. probe connection)	approx. 9 x 4 x 2 in (L x W x H)
Warranty	24 + 12 months (with registration)



Measuring data

Measurement parameter	Measuring range	Accuracy (± 1 digit)	Resolution
O ₂	0 ... 21 vol.%	± 0.2 vol.%	0.1 vol.%
CO (without H ₂ compensation)	0 ... 5,000 ppm	± 20 ppm (0 ... 400 ppm) $\pm 5\%$ of m.v. (401 ... 2,000 ppm) $\pm 10\%$ of m.v. (2,001 ... 5,000 ppm)	1 ppm
CO (with H ₂ compensation)	0 ... 10,000 ppm	± 10 ppm or $\pm 10\%$ of m.v. (0 ... 200 ppm) ± 20 ppm or $\pm 5\%$ of m.v. (201 ... 2,000 ppm) $\pm 10\%$ of m.v. (2,001 ... 10,000 ppm)	1 ppm
Efficiency testing (η)	0 ... 120%	–	0.1%
Flue gas loss	0 ... 99.9%	–	0.1%
CO ₂ (calculated from O ₂)	Display range 0 ... CO ₂ max.	± 0.2 vol.%	0.1 vol.%
Draught/draft	-0.29 to 1.18 inHg	± 0.0001 inHg (0 ... 0.003 inHg)	0.00003 inHg (0 ... 0.003 inHg)
		± 0.00014 inHg (0.002 to 0.089 inHg)	0.0003 inHg (remaining range)
		$\pm 1.5\%$ of m.v. (0.089 to 1.181 inHg)	
Pressure	-0.29 to 1.18 inHg	± 0.014 inHg (0 to 1.476 inHg) $\pm 1\%$ of m.v. (1.479 to 2.952 inHg) $\pm 1.5\%$ of m.v. (2.955 to 5.905 inHg)	0.0002 inHg
Temperature (instrument)	-40 to 2,192 °F	± 0.9 °C (32 to 212 °F)	0.18 °F (-40 to 1831.82 °F)
		$\pm 0.5\%$ of m.v. (remaining range)	1.8 °F (remaining range)
Ambient CO (internal/flue gas probe)	0 ... 2,000 ppm	± 10 ppm (0 ... 100 ppm) $\pm 10\%$ of m.v. (101 ... 2,000 ppm)	1 ppm
Ambient CO (external with CO probe)	0 ... 500 ppm	± 3 ppm (0 ... 29 ppm) $\pm 10\%$ of m.v. (30 ... 500 ppm)	1 ppm

Device models & sensors

Device Info



Testo sensors	
O ₂ sensor	
CO sensor	5,000 ppm
H ₂ compensation (CO sensor)	
NO sensor	optional
Zeroing in flue gas	
Warranty (years)	2 + 1
Order number (kits and contents, see next page)	0633 3200 01

Testo Sensors



Order number	0393 0020	0393 0070	0393 0170
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Kits

Each kit includes:



Standard
flue gas analyzer
testo 320



Instrument bag with
carrying strap
0516 3001



Compact basic flue
gas probe, 7 in,
Ø 0.24 in
0600 9740



Spare particle filter,
10 pcs
0554 0040



Plug-in mains
adapter
0554 1131

Optional
printer:



Mobile
Bluetooth® printer
0554 0622

Kits, based on device model of testo 320



testo 320
Kit 1 – O₂, CO

Order number
0564 3200 20

Kits with printer

testo 320
**Kit 2 – O₂, CO
with printer**

Order number
0564 3200 21

Accessories

		Order number
General accessories	testo Bluetooth® printer, including 1 roll of thermal paper, rechargeable battery and mains unit	0554 0622
	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 (USB-C)	0554 1131
	ISO flue gas calibration certificate	0520 0055
Modular flue gas probes	Modular flue gas probe, including cone for fixing; thermocouple NiCr-Ni; hose 7 ft; dirt filter; length 7 in; Ø 0.32 in; $T_{\max}$ 932 °F, TÜV-tested	0600 9760
	Modular flue gas probe, including cone for fixing; thermocouple NiCr-Ni; hose 7 ft; dirt filter; length 1 ft; Ø 0.32 in; $T_{\max}$ 932 °F, TÜV-tested	0600 9761
	Modular flue gas probe, including cone for fixing; thermocouple NiCr-Ni; hose 7 ft; dirt filter; length 7 in; Ø 0.24 in; $T_{\max}$ 932 °F	0600 9762
	Modular flue gas probe, including cone for fixing; thermocouple NiCr-Ni; hose 7 ft; dirt filter; length 1 ft; Ø 0.24 in; $T_{\max}$ 932 °F	0600 9763
	Flexible flue gas probe; thermocouple NiCr-Ni; hose 7 ft; dirt filter; length 1 ft; Ø 0.35 in; $T_{\max}$ 356 °F; short-term 392 °F; ideal for measurements in difficult-to-access locations	0600 9770
Compact flue gas probes	Compact basic flue gas probe, 7 in, Ø 0.24 in, $T_{\max}$ 932 °F	0600 9740
	Compact basic flue gas probe, 1 ft, Ø 0.24 in, $T_{\max}$ 932 °F	0600 9741

Accessories

		Order number
Smart probes	testo 510i, differential pressure measuring instrument with smartphone operation, including hose kit (Ø 0.16 in and 0.20 in) with adapter, batteries and calibration protocol (Bluetooth®)	0560 1510
	testo 115i, clamp thermometer with smartphone operation, for measurements on pipes of 0.24 in to max. 1.4 in diameter, including batteries and calibration protocol (Bluetooth®)	0560 2115 03
	testo 915i with flexible including batteries and calibration protocol (Bluetooth®)	0563 4915
Temperature probes	Combustion air temperature probe with 7.5 in probe shaft including cone and magnets for attachment (TUC)	0600 9799
	Clamp probe with NTC temperature sensor for measurements on pipes (Ø 0.24 to 1.4 in) (TUC)	0615 5505
	Pipe wrap probe (NTC) for pipe diameters from 0.20 to 2.5 in (TUC)	0615 5605
	Waterproof immersion/penetration probe with NTC temperature sensor (TUC)	0615 1212
	Temperature probe with Velcro (NTC) (TUC)	0615 4611
Probes & accessories	Dual wall clearance probe for O ₂ air input measurement (flue gas socket)	0632 1260
	Ambient CO probe (digital), fixed cable (TUC)	0632 1272
	CO probe (digital) – with Bluetooth®	0632 1271
	CO ₂ probe (digital) – with Bluetooth® including temperature and humidity sensor	0632 1551
	Solid fuel kit, including probe shaft, adapter (flue gas socket)	0600 9765
	Hose connection kit with adapter for separate gas pressure measurement (flue gas socket)	0554 1203
	Pressure connection hose, single, Ø 0.15/0.24 mm	0554 0449
	Pressure test kit for gas pipe test	0554 1213

Accessories

		Order number
Probe accessories & probe filter	Modular probe shaft; length 7 in; Ø 0.32 in; T _{max} 932 °F	0554 9760
	Modular probe shaft; length 1 ft; Ø 0.32 in; T _{max} 932 °F	0554 9761
	Probe shaft; length 1 ft; including cone; Ø 0.32 in; T _{max} 1,832 °F	0554 8764
	Probe shaft; length 2.3 ft; including cone; Ø 0.32 in; T _{max} 1,832 °F	0554 8765
	Flexible probe shaft; length 1 ft; Ø 0.35 in; T _{max} 356 °F	0554 9770
	Hose extension; 9 ft; probe-instrument extension tube	0554 1202
	Spare dirt filter, modular probe, 10 off	0554 3385
	Spare dirt filter, compact probe, 10 off	0554 0040
	Multi-hole probe shaft; length 1 ft; Ø 0.32 in; for CO mean value calculation	0554 5762
	Multi-hole probe shaft; length 7 in; Ø 0.32 in; for CO mean value calculation	0554 5763
	Cone with spring clamp and handle option, T _{max} 392 °F, Teflon material, Ø 0.24 in	0554 3327
	Cone with spring clamp and handle option, T _{max} 392 °F, Teflon material, Ø 0.32 in	0554 3328
Cases & carrying bags	Instrument case (height: 5 in) for instrument, probes and accessories	0516 3300
	Instrument case with double base (height: 7 in) for instrument, probes and accessories	0516 3301
	Instrument bag with carrying strap	0516 3001

Control via app



testo Smart App – one app for every step

The testo Smart App guides flue gas measurements, simplifies reporting and keeps heating system diagnostics connected – from setup to documentation.

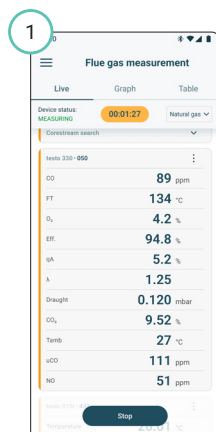
- Guided measurements for heating systems and flue gas analysis
- Automatic Bluetooth connection with smart probes and flue gas analyzers
- Easy setup and live monitoring during evacuation and measurements
- All readings and reports at a glance
- Fast creation and sharing of measurement reports

New

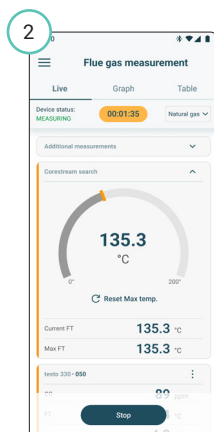
testo Smart Connect

Measurement data is automatically synced and always available – across devices, teams and locations.

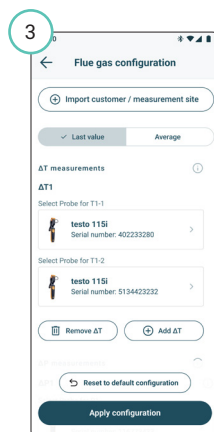
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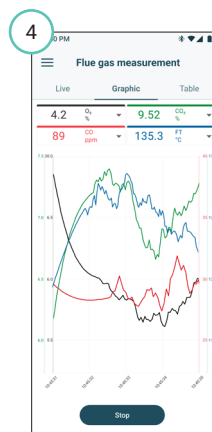
Full remote control



Corestream search



Connect Smart Probes



Analysis of the data