

Highly efficient flue gas analyser

testo 320B – Just a few “clicks” away from a heating system diagnosis

Measurement of flue gas, draught, pressure, ambient CO and differential temperature

High-resolution colour graphic display

Quick and easy menu structure

Memory for 20 measurement protocols

O₂ and CO sensor and flue gas probe with temperature probe

Independently tested to EN50379. Meets the requirements of BS7967 and Gas Safe TB143

3 year instrument and CO & O₂ sensor warranty



The testo 320B is a high quality measuring instrument for efficient flue gas analysis. Its wide measuring range makes it a reliable partner for eliminating malfunctions and emergencies, monitoring legal limit values or for daily routine work servicing heating systems.

The numerous measurement menus of the testo 320B are

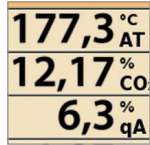
clearly structured and include test menus for flue gas, timed CO build up, let by and tightness, differential temperature, draught and pressure.

A high-resolution display allows a detailed presentation of the measurement procedures and is easily legible even under the worst conditions.

Product properties

High-resolution colour graphic display

The measurement menus and measurement values are presented in detail and always easily legible.



Sensor monitoring

Integrated traffic light system which continuously monitors the sensor functionality.



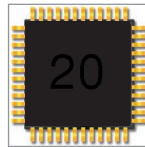
Fast sensor zeroing

Automatic zeroing of the sensor in only 30 seconds after start-up, and which can be cancelled if not required.



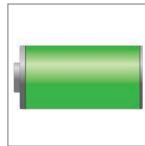
Memory

Up to 20 measurement protocols can be saved.



Lithium battery

Operation with a Lithium battery (1500mAh) – no battery change necessary, up to eight hours running time, charging via USB connection possible.



Attachment

Integrated magnets for fast attachment to burner/boiler.





Stamp of approval

The flue gas analyser testo 320 is TÜV-tested according to EN 50379, Parts 1-3. Meets the requirements of BS7967 and Gas Safe TB143



Robust design

Robust, durable instrument – ideally suited even to rough surroundings.



Condensate trap

Integrated condensate trap – very easily emptied.



Efficient exchange of probes

Fast and easy exchange of probes via the probe coupling. All gas paths are connected to the instrument at once with the bayonet connection.



Probe filter

Easy exchange of probe filter.



Flexibility

A range of probe lengths and diameters ensure a high degree of flexibility for all applications.

Ordering data

testo 320B Flue Gas Analyser Standard Kit

Part No. 0563 3223 80

testo 320B flue gas analyser with O₂ & CO sensor, international mains unit, basic flue gas probe (180 mm, Ø 6 mm) and soft transport case



testo 320B Flue Gas Analyser Advanced Kit

Part No. 0563 3223 81

testo 320B flue gas analyser with O₂ & CO sensor, international mains unit, basic flue gas probe (180 mm, Ø 6 mm), differential pressure set, differential temperature set, testo IR printer and soft transport case



Accessories

Smoke tester with oil and soot sheet, for measuring soot in flue gas, excl. cone (part no. 0554 9010)	0554 0307	
Testo Bluetooth®/IRDA printer incl. 1 roll of printer paper, rechargeable battery and mains unit	0554 0620	
Testo fast printer IrDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries	0554 0549	
Spare thermal paper for printer, permanent ink	0554 0568	
PC analysis software easyheat, for presenting measurement procedures as diagrams, tables and for managing customer data	0554 3332	
USB mains unit incl. cable	0554 1105	
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	
ISO calibration certificate/flue gas	0520 0003	

Probes

Compact basic flue gas probes	Part no.	
Flue gas probe compact; length 180 mm; Ø 6 mm; Tmax. 500 °C; probe stop; NiCr-Ni thermocouple, 2.2 m hose and particle filter included	0600 9740	
Flue gas probe compact; length 300 mm; Ø 6 mm; Tmax. 500 °C; probe stop; NiCr-Ni thermocouple, 2.2 m hose and particle filter included	0600 9741	

Modular flue gas probes	Part no.	
Flue gas probe modular, incl. cone for attachment; thermocouple NiCr-Ni; hose 2.2 m; particle filter; length 180 mm; Ø 8 mm; Tmax. 500 °C; TÜV-tested	0600 9760	
Flue gas probe; length 300 mm; Ø 8 mm; Tmax. 500 °C; TÜV approval; probe stop; NiCr-Ni thermocouple; 2.2 m hose and particle filter included	0600 9761	
Flue gas probe; length 180 mm; Ø 6 mm; Tmax. 500 °C; probe stop; NiCr-Ni thermocouple; 2.2 m hose and particle filter included	0600 9762	
Flue gas probe; length 300 mm; Ø 6 mm; Tmax. 500 °C; probe stop; NiCr-Ni thermocouple; 2.2 m hose and particle filter included	0600 9763	
Flue gas probe flexible; thermocouple NiCr-Ni; hose 2.2 m; dirt filter; length 330 mm; Ø 9 mm; Tmax. 180 °C; short-term 200 °C; ideal for measuring at inaccessible points	0600 9770	

Probe accessories	Part no.	
Probe shaft; length 180 mm; 8 mm; Tmax. 500 °C	0554 9760	
Probe shaft; length 300 mm; Ø 8 mm; Tmax. 500 °C	0554 9761	
Probe shaft flexible; length 330 mm; Ø 9 mm; Tmax. 180 °C	0554 9770	
Probe shaft multi-hole; length 300 mm; Ø 8 mm; for mean CO calculation	0554 5762	
Probe shaft multi-hole; length 180 mm; Ø 8 mm; for mean CO calculation	0554 5763	
Hose extension; 2.8 m; extension cable for probe	0554 1202	
Hose connection set with adapter for separate gas pressure measurement	0554 1203	
Spare dirt filter, modular probe; 10 off	0554 3385	
Spare particle filter, compact probe; 10 off	0554 0040	

Probes

Additional probes**Part no.**

Dual wall clearance probe for O ₂ supply air measurement	0632 1260	
Differential temperature set; consisting of 2 clamp probes and thermocouple adapter	0554 7223	

Combustion air temperature probes**Part no.**

Combustion air temperature probe, immersion depth 190 mm	0600 9787	
Combustion air temperature probe, immersion depth 60 mm	0600 9797	

Additional temperature probes**Part no.**

Mini ambient air probe; for separate ambient air temperature measurement; 0 to +80 °C	0600 3692	
Very fast reaction surface probe	0604 0194	
Connection cable	0430 0143	

Technical data

	Measuring range	Accuracy ± 1 digit	Resolution	Adjustment time t_{90}
Temperature	-40 to +1200 °C	± 0.5 °C (0 to +100.0 °C) ± 0.5 % of m.v. (remaining range)	0.1 °C (-40 to +999,9 °C) 1 °C (> +1000 °C)	
Draught measurement	-9.99 to +40 hPa	± 0.02 hPa or $\pm 5\%$ of m.v. (-0.50 to +0.60 hPa) ± 0.03 hPa (+0.61 to +3.00 hPa) $\pm 1.5\%$ of m.v. (+3.01 to +40.00 hPa)	0.01 hPa with fine draught option 0.001 hPa	
Pressure measurement	0 to +300 hPa	± 0.5 hPa (0.0 to 50.0 hPa) $\pm 1\%$ of m.v. (50.1 to 100.0 hPa) $\pm 1.5\%$ of m.v. (remaining range)	0.1 hPa with fine draught option 0.01 hPa	
O₂ measurement	0 to 21 Vol. %	± 0.2 Vol. %	0.1 Vol. %	< 20 s
Ambient CO measurement	0 to 4000 ppm	± 3 ppm for readings below 20 ppm $\pm 5\%$ for readings over 20 ppm	1 ppm	< 60 s
Determination of degree of effectivity (Eta)	0 to 120%		0.1%	
Flue gas loss	0 to 99.9%		0.1%	
CO₂ determination digital calculation from O ₂	Display range 0 to CO ₂ max	± 0.2 Vol. %	0.1 Vol. %	< 40 s
Ambient CO measurement (with CO probe)	0 to 500 ppm	± 5 ppm (0 to 100 ppm) $\pm 5\%$ of m.v. (> 100 ppm)	1 ppm	
Gas leak measurement for flammable gases (with gas leak detection probe)	Display range 0 to 10.000 ppm CH ₄ / C ₃ H ₈	Signal optical display (LED) audible signal via buzzer		< 2 s
Ambient CO₂ measurement (with ambient CO₂ probe)	0 to 1 Vol. % 0 to 10.000 ppm	± 50 ppm or $\pm 2\%$ of m.v. (0 to 5000 ppm) ± 100 ppm or $\pm 3\%$ of m.v. (5001 to 10000 ppm)		
Differential pressure, flow velocity and temperature via fine pressure probe	± 10.000 Pa 0.15 to 3 m/s max. -40 to +1,200 °C (dependent on probe)	± 0.3 Pa (0 to 9.99 Pa) plus ± 1 Digit $\pm 3\%$ of m.v. (10 to 10.000 Pa) plus ± 1 Digit ± 0.5 °C (-40 to 100 °C) ± 0.5 % of m.v. (rem. measuring range) plus probe accuracy	0.1 m/s 0.1 °C	

General technical data

Storage temperature	-20 to +50 °C
Operating temperature	-5 to +45 °C
Power supply	Battery: 3.7 V / 2,400 mAh Mains unit: 6 V / 1.2 A
Memory	20 measurement values

Display	Colour graphic display 240 x 320 pixels
Weight	573 g
Dimensions	240 x 85 x 65 mm
Warranty	Instrument/probe/gas sensors: 36 months Thermocouple/rech. battery: 12 months

