

Be sure. testo



# Testo - the complete instrument supplier for heating engineers

Helping you work quicker and more simply with smart technology





Thermal Imaging App



Арр

www.testo.co.uk

# Testo: global leader in flue gas analysis

Testo is the global leader in flue gas analysis. Our broad range of analysers covers entry level through to domestic and commercial analysers and even up to MCERTS-approved emissions analysers for environmental compliance. This breadth of experience has resulted in a range which is unparalleled in terms of accuracy, durability and usability. Put simply, Testo flue gas analysers are the best.

Testo understands that every engineer and every boiler have unique requirements from a flue gas analyser. The information in this brochure should help you to choose the flue gas analyser to fit your needs. Before you choose, here are a few important considerations. Testo flue gas analysers all conform to the required UK standard, which is EN 50379 (2012).

All Testo flue gas analysers use  $O_2$  and CO sensors to sample combustion gases and then calculate the corresponding level of  $CO_2$  using the  $CO_2$ max coefficient of the fuel type. This creates a more reliable measurement, especially in the event of increased  $CO_2$  levels being blended into future gas supplies.

Combined with the measured CO value, the analysers all display a calculated  $CO:CO_2$  combustion ratio to four decimal places in accordance with EN 50379.



# Indispensable instruments for heating engineers

Gas engineers depend on a wide range of instruments to carry out their work. Testo provide a complete range of instruments for all these measurement requirements.

Testo instruments are designed to ensure exceptional ease of use, accuracy and integration with other Testo instruments. Our instruments are built to last and provide years of reliable use, making them excellent value for money. The Testo instrument range includes:

- Gas leak, ambient CO and CO<sub>2</sub> detection
- Smart Probes: wireless probes operated via Smartphone or tablet
- Thermometers
- Anemometers
- Pressure meters
- Electrical measurement
- Thermal imaging cameras
- Data loggers

# Fast, simple and reliable flue gas analyser service

Testo understands that you need simple and reliable flue gas analyser service, completed as quickly as possible. Our flue gas analyser service plan offers our lowest ever cost of ownership over a 5 year period.

Whether you return your flue gas analyser direct to Testo or opt to use a Testo Approved Service Centre, you will benefit from the same pricing.

Instruments serviced by Testo are typically turned around in just 2 working days, or you can opt for our optional 24 Hour Express service.

For further information and pricing, please see page 27.



#### Your advantages with Testo

#### Largest portfolio:

With Testo, you find all the measuring instruments you need for installation, servicing and maintenance of heating systems.

#### Worry-free working:

With Testo, you don't just get the right measuring instruments, but also services such as regular maintenance and calibration from one provider.

#### Innovative technology:

With heating technology from Testo, you leave the competition behind you – and all at an attractive price.

# Testo flue gas analysers overview

	testo 310	testo 327-1	testo 320B
Fuels available	Oil, gas, solid fuels	Oil, gas, solid fuels	Oil, gas, solid fuels
Measurement sensors	0 <sub>2</sub> , CO	0 <sub>2</sub> , CO	0 <sub>2</sub> , CO
Measuring ranges	CO: 0 to 4000 ppm CO <sub>2</sub> : 0 to CO <sub>2</sub> max	CO: 0 to 4000 ppm CO <sub>2</sub> : 0 to CO <sub>2</sub> max	CO: 0 to 4000 ppm CO <sub>2</sub> : 0 to CO <sub>2</sub> max
CO measurement (H <sub>2</sub> -compensated)	•	8	8
Long-life CO sensor with up to 6 years' service life	•	8	8
Gas pressure testing			
Draught measurement	Separate from flue gas measurement	Parallel to flue gas measurement	Parallel to flue gas measurement
Flow/return temperature measurement	•		
Error and sensor diagnosis			
Zeroing of analyser in flue possible	8	8	•
Create digital measurement protocol directly in the App and send via email	8	8	8
Warranty (sensor and instrument)	2 years	3 years	3 years
Warranty with product registration (instrument, sensors, probe)	n/a	n/a	n/a
Display	2-line LCD display	4-line alphanumeric LCD display	Colour display
Memory	8	8	20 measurement protocols
Software/App	=	=	Export values to Excel file
Price	From £399	From £450	From £589

Be sure. <mark>testo</mark>

	testo 320 Bluetooth	testo 300	testo 300LL
Fuels available	Oil, gas, solid fuels	Oil, gas, solid fuels	Oil, gas, solid fuels
Measurement sensors	0 <sub>2</sub> , CO	O <sub>2</sub> , CO NO optional	O <sub>2</sub> , CO H <sub>2</sub> -compensated, NO optional
Measuring ranges	CO: 0 to 4,000 ppm CO <sub>2</sub> : 0 to CO <sub>2</sub> max	CO: 0 to 4,000 ppm CO <sub>2</sub> : 0 to CO <sub>2</sub> max	CO H <sub>2</sub> -compensated: 0 to 30,000 ppm (via fresh air dilution)
CO measurement (H <sub>2</sub> - compensated)	8		
Long-life CO sensor with up to 6 years' service life	8	8	
Gas pressure testing			
Draught measurement	Parallel to flue gas measurement	Parallel to flue gas measurement	Parallel to flue gas measurement
Flow/return temperature measurement			
Error and sensor diagnosis			
Zeroing of analyser in flue possible	8	8	
Create digital measurement protocol directly in the App and send via email			
Warranty (sensors and instrument)	3 years	3 years	4 years
Warranty with product registration (instrument, sensors, probe)	n/a	4 years	5 years
Display	Colour display	5" HD touchscreen display	5" HD touchscreen display
Memory	Up to 500 measurement protocols	1 million measured values	1 million measured values
Software/App	testo Combustion App	testo EasyHeat PC software	testo EasyHeat PC software
Price	From £650	From £849	From £1,469

# testo 310 flue gas analyser

The testo 310 flue gas analyser combines simple functions with a high level of measurement accuracy and is perfectly suited to all basic measurements on a heating system. Long battery lifetime of up to ten hours, guarantees high availability. Its easy handling and compact design make the testo 310 a robust tool for day-to-day work – even when things get rough.

Robust design for daily use

Battery lifetime up to 10 hours

Integrated measurement menus: flue gas, draught, ambient CO and pressure

Fast sensor zeroing in only 30 seconds

Illuminated display

Documentation of measurement results via printer with infrared interface

Integral flue gas probe with fixed cable

#### **Technical Data**

Temperature	0 to +400 °C
Draught	-20 to +20 mbar
Pressure	-40 to +40 mbar
0 <sub>2</sub>	0 to 21 Vol. %
CO	0 to 4000 ppm
CO <sub>2</sub>	0 to CO <sub>2</sub> max
Ambient CO	0 to 4000 ppm

Clear reports can be created as required on site thanks to the infrared interface printer. The current measurement value can be printed out from all measurement menus, either during or after the measurement. The testo 310 offers all advantages of electronic flue gas measurement in high quality at a perfect cost/benefit ratio.



 O2

 CO2

 CO

 Mbar

 CO

 CO

 CO

 CO

 CO

 CO

 CO

 Ratio

#### testo 310 Printer Kit

testo 310 analyser, hard case, rechargeable battery & USB mains charger, silicone hose for pressure, particle filters x 5, calibration protocol, probe 180mm with cone, spare pressure plugs

Order no. 0563 3110 Price £499.00



#### testo 310 Standard Kit

testo 310 analyser, hard case, rechargeable battery & USB mains charger, silicone hose for pressure, particle filters x 5, calibration protocol, probe 180mm with cone, spare pressure plugs



Order no. 0563 3100 Price £399.00

# testo 327-1 flue gas analyser

The testo 327 measures combustion efficiency, °C,  $O_2$ ,  $CO_2$ ,  $CO_2$ , CO and flue draught. Ambient CO measurement is also possible. The powerful LED backlighting in the 4-line display guarantees good legibility even in unfavourable lighting. The instrument stands out thanks to its ergonomic housing design, as well as its durability.

Fast and robust probe connection
7 selectable fuels
Timed Ambient CO measurement
Tightness and let-by tests
Flow and return temperatures (using additional probes)
Easy IR printout
4,000 ppm CO sensor protected by automatic pump shut-off
Tested to EN50379, conforms to BS7967 & Gas Safe TB143

#### **Technical Data**

Temperature	-40 to +600 °C
Draught	±40 mbar
Efficiency measurement (Eta)	0 to 120%
Flue gas loss (qA)	0 to 99.9%
O <sub>2</sub> measurement	0 to 21 Vol. %
CO <sub>2</sub> measurement	0 to CO <sub>2</sub> max
CO measurement	0 to 4000 ppm
Pressure	-200 to +200 mbar

New kits for 2020

New pipe clamp probes for quicker and easier use

New durable soft case with shoulder strap

#### testo 327 Standard Kit

testo 327 flue gas analyser and calibration protocol, rechargeable battery, flue gas probe (180mm x 6mm diameter), soft transport case

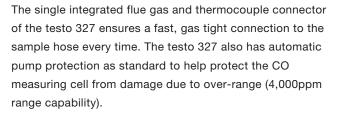


Order no. 0563 3203 80 Price £450.00 asier use

#### testo 327 Advanced Kit

testo 327 flue gas analyser and calibration protocol, rechargeable battery, flue gas probe (180mm x 6mm diameter), pressure hose adapter kit, differential temperature kit, testo infrared printer (0554 0549), soft transport case

Order no. 0563 3203 81 Price £590.00







# testo 320B flue gas analyser

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

#### testo 320B and testo 320:

Colour display and simple menu operation

Test menus for flue gas, timed CO build up, let by and tightness, differential temperature, draught and pressure

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

Displays ratio, CO,  $O_2$ , CO<sub>2</sub>, flue & ambient temperature, excess air and gross and net efficiency

For use with all common fuel types

3 year instrument and sensor warranty

Memory with USB data transfer to PC

Automatic CO sensor protection shuts off pump

#### **Technical Data**

Temperature	-40 to +1,200 °C
Draught	-9.99 to +40 mbar
Pressure	0 to +300 mbar
0 <sub>2</sub>	0 to 21 Vol. %
CO	0 to 4,000 ppm
CO <sub>2</sub>	0 to CO <sub>2</sub> max



New pipe clamp probes for quicker and easier use New durable soft case with shoulder strap

#### testo 320B Standard Kit

testo 320B with  $O_2$  and CO sensors, soft transport case, batteryand USB mains unit, flue gas probe (180 mm,  $\emptyset$  6 mm)



Order no. 0563 3223 80 Price £589.00 The numerous measurement menus of the testo 320 are clearly structured. Standardised menu procedures, which are stored in the instrument, simplify operation. The high resolution display allows a detailed presentation of the measurement procedures and is easily legible even under the worst conditions.





testo 320B Advanced Kit

testo 320B with O<sub>2</sub> and CO sensors, soft transport case, battery and USB mains unit, flue gas probe (180 mm, Ø 6 mm), plus differential pressure kit, differential temperature kit and testo IR printer

Order no. 0563 3223 81 Price £730.00





 $O_2$ 

 $CO_2$ 

СО

mbar

°C

Ratio

со amb

# testo 320 Bluetooth flue gas analyser

All the features of the testo 320B, plus additional features including connection via Bluetooth to testo Combustion App and ambient CO measurement.

#### testo 320 units only:

Bluetooth connection to free combustion app (android only)

Possibility of ambient CO measurement, either via flue gas probe or optional external CO probe

Gas leak measurement for flammable gases with optional gas leak detection probe

Flue gas matrix screen including boiler type and parameters

Gas and oil ratings

#### Technical Data

Temperature	-40 to +1,200 °C
Draught	-9.99 to +40 mbar
Pressure	0 to +300 mbar
0 <sub>2</sub>	0 to 21 Vol. %
CO	0 to 4,000 ppm
CO <sub>2</sub>	0 to CO <sub>2</sub> max



testo App	Combus	tion

Free download for Android



#### New kits for 2020

- New pipe clamp probes for quicker and easier use
- New durable soft case with shoulder strap

#### testo 320 Bluetooth Standard Kit

testo 320 Bluetooth with O2 and CO sensors, soft transport case, battery and USB mains unit, flue gas probe (180 mm, Ø 6 mm)



Order no. 0563 3220 80 £650.00 **Price** 

#### testo 320 Bluetooth Advanced Kit

testo 320 Bluetooth with O<sub>2</sub> and CO sensors, soft transport case, battery and USB mains unit, flue gas probe (180 mm, Ø 6 mm), plus differential pressure kit, differential temperature kit and testo IR printer

Order no. 0563 3220 81 **Price** £790.00



# testo 300 smart flue gas analyser

The smart testo 300 flue gas analyser is fully operated via the 5" HD smart touch display, so you can see all the measuring values straight away without scrolling. The 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.

💎 100 % 📋 12

Flue Gas

0.0001

5.1

10 ppm

8.99 %

109.9 ·c

testo 300

Ratio

%

02

со

CO2

mbar

°C

Ratio

СО

amb

ΔP

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

Stored, intuitive menus for all relevant measurements

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

4 strong magnets with rubber coating for material friendly mounting

Emailing of reports directly on site, with integrated customer address book



#### **Technical Data**

Temperature	-40 to 1,200 °C
Draught	-9.99 to +40 mbar
Pressure	-100 to +200 mbar
0 <sub>2</sub>	0 to 21 Vol. %
CO	0 to 4,000 ppm
CO <sub>2</sub>	0 to CO <sub>2</sub> max.



testo 300 flue gas analyser O2, CO 4,000 ppm, compact flue gas probe (180mm, Ø 6 mm), testo EasyHeat PC software, soft transport case, plus testo printer, pipe clamp probes for differential temperature and pressure hose connection set

Order no.	0564 3002 81
Price	£1,199.00

testo 300 Standard Kit

testo 300 flue gas analyser O<sub>2</sub>, CO 4,000 ppm, compact flue gas probe (180mm, Ø 6 mm), testo EasyHeat PC software and soft transport case



#### testo 300 Standard + Printer Kit

testo 300 flue gas analyser O<sub>2</sub>, CO 4,000 ppm, compact flue gas probe (180mm, Ø 6 mm), testo EasyHeat PC software, soft transport case, plus testo printer





# testo 300LL smart flue gas analyser

Designed for commercial boiler installation and servicing

Fitted with 'longlife' cells and a 4 year warranty

CO sensor with  $\rm H_2$  compensation. 0 to 30,000 ppm with automatic fresh air dilution

Supplied with modular style flue gas probe 8mm diameter x 180mm long

Emailing of reports directly on site, with integrated customer address book

Optional NO sensor can be fitted to allow calculated NOx measurement

Technical Data		
Temperature	-40 to 1,200 °C	
Draught	-9.99 to +40 mbar	
Pressure	0 to +300 mbar	
0 <sub>2</sub>	0 to 21 Vol. %	
CO H <sub>2</sub> compensated	0 to 30,000 ppm via automatic dilution	
CO <sub>2</sub>	0 to CO <sub>2</sub> max.	



# testo 300 & 300LL NOx measurement kits

For engineers who need to measure and record NOx values within the combustion process on domestic or light commercial boilers, Testo have introduced specific measurement kits based around the testo 300 flue gas analyser unit.

These models give a calculated NOx measurement using the onboard NO sensor, and a preset NO<sub>2</sub> percentage.

testo 300 flue gas analyser with O <sub>2</sub> & CO sensors, NO, mains unit, compact flue gas probe (180 mm x Ø 6 mm), spare dirt filters, testo Bluetooth printer, spare thermal paper, testo 300 softcase, EasyHeat PC analysis software	testo 300LL with O <sub>2</sub> sensor, H <sub>2</sub> compensated CO sensor, NO, mains unit, modular flue gas probe (180 mm, Ø 8 mm), spare dirt filters, testo Bluetooth printer, instrument case, EasyHeat PC analysis software
Order no. 0564 3002 74	Order no. 0564 3004 84
Price £1,499.00	Price £1,999.00

# testo 340 industrial emissions analyser

The compact, easy-to-operate testo 340 emissions analyser is the right tool for many different emission measurements. The compact design and the reliable technology make it the ideal measuring instrument for commissioning, service and maintenance work and in test measurements on industrial burners, stationary industrial engines, gas turbines and thermal processes.

Measuring range extension for unrestricted measurement at high gas concentrations up to 5 x sensor range

Flue gas analysis with up to 4 gas sensors – freely configurable

Large selection of probes

Bluetooth interface

Convenient measurement data management

TÜV-tested / EN norm

#### Technical Data

O <sub>2</sub> measurement	0 to 25 vol.%
CO measurement (H <sub>2</sub> -compensated)	0 to 10,000 ppm
CO <sub>low</sub> measurement (H <sub>2</sub> -compensated)	0 to 500 ppm
NO measurement	0 to 4,000 ppm
NO <sub>low</sub> measurement	0 to 300 ppm
NO <sub>2</sub> measurement	0 to 500 ppm
SO <sub>2</sub> measurement	0 to 5,000 ppm
Temperature measurement	-40 to +1,200 °C
Draught measurement	-40 to +40 hPa
Differential pressure measurement	-200 to 200 hPa
Absolute pressure measurement	600 to +1,150 hPa
Derived parameters:	
Efficiency	0 to 120%
Flue gas loss	0 to 99.9%
Flue gas dewpoint	0 to 99.9 °C
CO <sub>2</sub> determination (calculation from O <sub>2</sub> )	0 to CO <sub>2</sub> max.

The unique measuring range extension allows unrestricted measurements to be carried out even at high gas concentrations. The testo 340 is equipped with an  $O_2$  sensor as standard. Three further gas sensors can be configured individually, in order to be able to adapt the instrument optimally to the respective measurement task. The instrument can also be operated remotely from your Android Smartphone or tablet using the free App.



#### testo 340 Combustion Kit

testo 340 analyser unit with  $O_2$ , CO, NO cells and Bluetooth module fitted, testo 340 carry case, switching power supply 6, 3VDC 2A, carry strap



Order no.	0563 9352
Price	£2,290.00

#### testo 340 NO<sub>2</sub> / NOx Kit

testo 340 analyser unit with  $O_2$ , CO, NO,  $NO_2$  cells and Bluetooth module fitted, testo 340 carry case, switching power supply 6, 3VDC 2A, carry strap



£2,990.00

testo 340 SO<sub>2</sub> Kit

testo 340 analyser unit with  $O_2$ , CO, NO,  $SO_2$ cells and Bluetooth module fitted, testo 340 carry case, switching power supply 6, 3VDC 2A, carry strap



12 Please note, these kits do not include sampling probe/hose, printer or software. These should be chosen to suit your specific application. Find out more at www.testo.co.uk or contact our sales office on 01420 544433 if you require assistance.

Price



# Accessories for flue gas analysers

	Description	Order No.	Price
o or first	<b>Testo IR Printer</b> Infrared printer, includes 1 roll of thermal paper and batteries. (For use with testo 310 only)	0554 3100	£135.00
CO	<b>Testo IRDA Printer</b> This printer offers a faster print out of readings via IRDA interface and includes1 roll of thermal paper and batteries.(For use with testo 310, 320B, 327, 330, 340 and 350)	0554 0549	£199.00
	<b>Testo Bluetooth IRDA Printer for</b> <b>testo 300</b> Fast documentation for the testo 300 and testo 300LL. Includes 1 roll of thermal paper and batteries	0554 0621	£289.00
	<b>Thermal Printer Rolls</b> Pack of six thermal printer rolls with 10 year legibility. (For models: 0554 3100, 0554 0549, 0554 0553)	0554 0568	£24.00
	<b>Differential Pressure Set</b> Hose connection set for gas pressure measurement. For use with testo 327, testo 320B, testo 300 and testo 330	0554 1203	£22.90
	<b>Differential Temperature Set</b> 2 x clamp probes and thermocouple adaptor for differential temperature testing. For use with testo 327, 320, 320B & 330.	0554 7223	£59.90
	<b>CPA1 Set</b> B2 angled probe, B1 gas cooker probe, hose connector, silicon hose, gas pressure controller and gas leak detector	300554 1000	£185.00
	Clamp Probe with NTC temperature sensor - for measurements on pipes (Ø 6-35 mm. For use with testo 300 only	0615 5505	£39.00
	<b>Clamp Probe</b> with NTC temperature sensor - for use with testo 327 and 320	0600 5505	£19.90
	Testo Smoke Pump Smoke tester including smoke paper sheet, smoke chart and cone	300554 0307	£ 99.00
	<b>Spare Particle Filters</b> for compact style probe, 10 off	0554 0040	£22.00
	<b>Spare Particle Filters</b> for compact style probe, 10 off	0554 3385	£18.50
eeto	<b>Testo Soft Transport Bag</b> Soft bag with shoulder strap suitable for all Testo flue gas analysers	0516 3001	£55.00
	<b>Testo Hard Transport Case</b> Suitable for all Testo flue gas analysers and accessories	0516 3300	£77.00

# **Gas leak detectors**

# Gas leak detector testo 317-2

- Shows gas concentration in visual bar display
- Increasing alarm sounds with increasing gas concentration
- Continuous sound if threshold is exceeded

#### testo 317-2

testo 317-2 gas leak detector, case with belt clip and wrist strap and batteries

0632 3172 £99.00

0632 0316

£169.00



Technical Data				
	Methane (CH₄)	Propane (C <sub>3</sub> H <sub>8</sub> )		
Range	0 to 20000 ppm	0 to 10000 ppm		
Lower response threshold	100 ppm	50 ppm		
1st alarm limit	10,000 ppm (20% LEL)	5,000 ppm (20% LEL)		

# Gas leak detector testo 316-1

- Detects even the smallest leaks. Monitors Methane
- Flexible measurement probe for hard to reach locations
- Optical and audible alarms when limits are exceeded

#### testo 316-1

Order no.

Price

testo 316-1 gas leak detector with flexible probe and battery



Technical Data	
Measuring range	0 to 10,000 ppm CH4
1st alarm limit	from 200 ppm CH4 (LED yellow)
2nd alarm limit	from 10,000 ppm CH4 (LED red)

# Multi gas leak detector testo 316-2

- Detects propane, methane and hydrogen
- 18-step bar for displaying gas concentration and alarm
- Flexible gooseneck sensor

Technical Data					
	Methane (CH <sub>4</sub> )	Propane (C <sub>3</sub> H <sub>8</sub> )	Leak detec- tion (H <sub>2</sub> )		
Range	10 ppm to 4.0 Vol.%	10 ppm to 1.9 Vol.%	10 ppm to 4.0 Vol.%		
Lower response threshold	10 ppm	10 ppm	10 ppm		
1st alarm limit	200 ppm	100 ppm	200 ppm		

#### testo 316-2

Order no.

Price

testo 316-2 gas leak detector with flexible measurement probe, mains charger, earphones





# Ambient CO and CO<sub>2</sub> monitoring

## **Ambient CO monitor** testo 317-3

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.

- Detects the presence of dangerous levels of ambient CO
- 3 year warranty on CO sensor

**Technical Data** Measuring range

Accuracy

Resolution

Visual and audible alarm. Adjustable alarm threshold

0 to +1,999 ppm

1 ppm

## Ambient CO/CO<sub>2</sub> measuring instrument testo 315-3

±3 ppm (0 to +29 ppm), ±10 ppm (+30 to +99 ppm), ±10 % (+100 ppm)

The testo 315-3 offers a highly accurate electrochemical sensor for CO measurement and a shock-resistant infrared CO<sub>2</sub> sensor.

- Parallel measurement of CO and CO<sub>2</sub> in ambient air • according to EN 50543 for testing in commercial kitchens
- Convenient, easy handling
- Data printout on site using optional IR printer unit
- Optional temperature/humidity module

Technical Data				
	CO sensor			

	CO sensor	CO <sub>2</sub> sensor	Temp/humidity module (optional)
Range	0 to 100 ppm	0 to 10.000 ppm	+5 to +95 %RH, -10 to +60 °C
Accuracy	±3 ppm (0 to 20 ppm) ±5 ppm (>20 ppm)	±300 ppm (0 to 4.000 ppm) ±8% of m.v. (4.000 to 6.000 ppm) ±500 ppm (6.000 to 10.000 ppm)	±2.5 %RH (5 to 95 %RH) ±0.5 °C (±1 Digit)
Resolution	0.5 ppm	10 ppm	0.1 %RH 0.1 °C

#### testo 317-3

testo 317-3 CO monitor, carrying case with belt clip, headphones, wrist strap, sampler and calibration protocol

er no.	0632 3173
e	£129.00

Orde Price



0632 3153 Order no. £699.00

**Price** 







# Gas pressure

## Differential pressure meter testo 510

The compact testo 510 is suitable for pressure testing on gas pipework (tightness & let-by). Also flow measurements in ventilation ducts using a Pitot tube. The testo 510 comes with a silicone connection hose and other useful accessories.

- Differential pressure measurement from 0 to 100 hPa
- Flow measurement possible with optional Pitot tube
- 10 units to choose from; Pa, hPa, mbar, mmH2O, mmHg, inH2O, inHg, psi, m/s, fpm



Order no. Price 0563 0510 £109.00

Technical Data		
Measuring range	0 to 100 mbar	
Accuracy	±0.03 mbar (0 to 0.30 mbar) ±0.05 mbar (0.31 to 1.00 mbar) ±(0.1 mbar + 1.5 % of mv) (1.01 to 100 mbar)	

Resolution 0.01 mbar



## Bluetooth differential pressure Smart Probe testo 510i

the testo 510i differential pressure measuring instrument with smartphone operation for pressure testing on gas pipework (tightness & let-by). Readings can be viewed conveniently on your smartphone/tablet via the testo Smart Probes App and emailed directly.

- Measurement of gas flow and static pressure
- Measurement menu for pressure drop test
- Simple configuration and determination of volume flow



Technical Data		
Measuring range	-150 to +150 mbar	
Accuracy	±0.05 mbar (0 to +1 mbar) ±(0.2 mbar + 1.5 % of mv) (+1 to +150 mbar)	
Resolution	0.01 mbar	



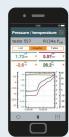


# Testo Smart Probes: compact Bluetooth probes for heating systems

Measure temperature, pressure or humidity more easily and more productively than ever before with the testo Smart Probes - handy measuring tools that can be operated by your smartphone/tablet via the testo Smart Probes App.

The Testo Smart Probes transmit readings via Bluetooth to the testo Smart Probes App on your smartphone/tablet. You can then use this to analyse and document the data, and to send them as an email report directly on site.

New: extended range and better handling





testo Smart Probes App: Download now for iOS or Android free of charge:





#### Your benefits:

Range up to 100 m

- More mobility: readings always to hand right where they are needed.
- More reliability: direct digital processing of measurement results.
- More professionalism: clear PDF report with photos, logo and comments.
- The new Smart Probes testo 115i, testo 605i and testo 549i have an extended Bluetooth range of up to 100 metres.
- Measurement at a vent is comfortable with the bendable probe of the new testo 605i. Its thinner measurement tip is ideal for smaller measurement apertures, and the stable magnetic holder ensures even more secure attachment.
  - The connection of the new testo 549i is angled by  $45^\circ$  for easier mounting.

#### testo Smart Probes heating kits

Measure and check all heating system temperatures and pressures in conjunction with your smartphone.

- Measurement menu for pressure drop test, including alerts via testo Smart Probes App
- Measurement of gas flow and static pressure
- Flow/return/differential temperature on boilers and radiator balancing

#### Heating kit (0563 0004 10) also offers:

- Rapid image documentation with IR temperature readings and measuring spot marking
- Non-contact temperature measurement on underfloor heating systems and radiators

#### **Smart Probes heating kit**

Contains testo 115i surface thermometer, testo 510i differential pressure meter & testo 805i infrared thermometer in testo smart case

Order no. 0563 0004 10 Price £195.00



#### Smart Probes differential temperature/ pressure kit

Kit contains 2 x testo 115i surface thermometers and testo 510i differential pressure meter in testo smart case

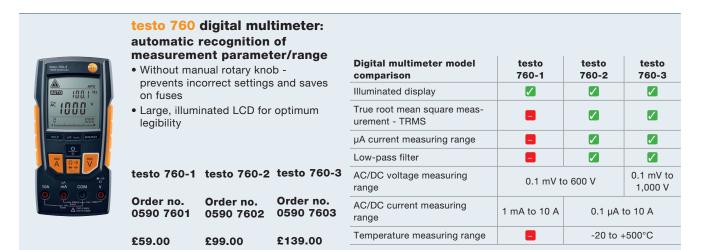
Order no. 300563 0015 Price £189.00



# testo Smart Probes: compact Bluetooth probes for heating systems

<ul> <li>testo 115i clamp therme</li> <li>Temperature measurement, su measurement on heating syste</li> <li>-40 to +150 °C</li> <li>Order no. 0560 2115 02</li> </ul>	uitable for p		***	
<ul> <li>testo 510i differential pr</li> <li>Measurement menu for pressu</li> <li>-150 to +150 hPa</li> </ul> Order no. 0560 1510	ure drop te	-	8	
<ul> <li>testo 605i humidity mea</li> <li>Air humidity/temperature mea</li> <li>-20 to +60 °C; 0 to 100 %RH</li> </ul> Order no. 0560 2605 02	-		8	-
<ul> <li>testo 405i thermal anen</li> <li>Air flow velocity/temperature, also for calculating cooling/he</li> <li>-20 to +60 °C; 0 to 30 m/s</li> <li>Order no. 0560 1405</li> </ul>	volume flo eating perfo	w measurement,	8	
<ul> <li>testo 410i vane anemon</li> <li>Air flow velocity/temperature, also for calculating cooling/he</li> <li>-20 to +60 °C; 0.4 to 30 m/s</li> <li>Order no. 0560 1410</li> </ul>	volume flor eating perfo		**	
<ul> <li>testo 805i</li> <li>infrared thermometer</li> <li>Non-contact surface temperature</li> <li>Measuring spot marking</li> <li>-50 to +150 °C</li> <li>Order no. Price</li> <li>0560 1805 £69.00</li> </ul>		testo 905ithermometer• Reliable measurement of a temperatures• -50 to +150 °COrder no.0560 1905 £59.00	air	testo Smart Probes App FREE downloadImage: state of the sta

# Electrical measurement technology Indispensable for heating engineers





#### testo 770 clamp meter: grabs cables in all positions

- Unique grab mechanism makes it easier to work at tight measuring points
- Can be used via Bluetooth with testo Smart Probes App and smartphone/ tablet (testo 770-3 only)

testo 770-1	testo 770-2	testo 770-3
Order no. 0590 7701		
£89.00	£119.00	£149.00

testo 750 voltage tester: with unique all-round display
Clear, patented 360° all-round display is legible from all sides
Ergonomic handle shape
Checks residual current circuit breakers (testo 750-2/-3 only)

testo 750-1 testo 750-2 testo 750-3

Order no.

£49.00

Order no.

£65.00

0590 7502 0590 7503

Order no.

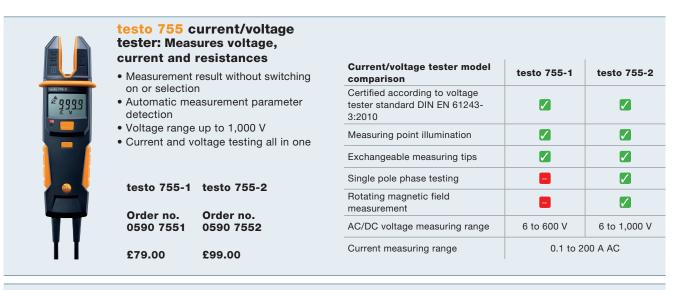
£29.00

0590 7501

Clamp meter model comparison	testo 770-1	testo 770-2	testo 770-3
True root mean square measurement - TRMS			
Starting current measurement			
µA current measuring range	-		
Bluetooth and testo Smart Probes App	-		
AC/DC voltage measuring range	11	mV to 600 V	
AC/DC current measuring range	0.1 to	400 A	0.1 to 600 A
Power (watts) measurement	-		
testo Smart Probes App: Download now for iOS or Android free of charge (testo 770-3 only)			Google Play Download on the App Store



Voltage tester model comparison	testo 750-1	testo 750-2	testo 750-3
Patented all-round LED display			
Certified according to voltage tester standard DIN EN 61243-3:2010			
Measuring point illumination			
Single pole phase testing			
Additional LC display			
AC/DC voltage measuring range	12 to 690 V		
Continuity testing measuring range	< 500 kΩ		



#### testo 745 non-contact voltage tester: No other instrument is so reliable

- Optical and acoustic signal
- 2 sensitivities (12 to 50 V / 50 to 1,000 V)
- Measuring point illuminationFilter (LPF) for high-frequency
- interference signals
- Waterproof and dustproof according to IP 67

#### testo 745

Order no. 0590 7450





Non-contact voltage testing on a distributor box for a heating system with the testo 745.

#### **Practical accessories for electrical measuring instruments**

Magnetic hook For testo 760 multimeter	Transport bag For testo 760 For testo 755/770 For testo 750 Order no. Order no. Order no.
Order no. 0590 0001 £18.90	0590 0016 0590 0017 0590 0018 £21.90 £21.90 £21.90
Thermocouple adapter For testo 760 multimeter	Standard measuring cables (Angled plug) Tip Ø: 2 mm
Order no. 0590 0002     £21.90       Thermocouple adapter type K       For testo 770 clamp meter	Order no. 0590 0010     £16.90       Standard measuring cables       (Angled plug)
Order no. 0590 0021 £21.90	Tip Ø: 4 mm Order no. 0590 0011 £16.90
Clamp meter adapter For testo 760-2/-3 multimeter	Set of crocodile clips For use with the measuring cable 0590 0011
Order no. 0590 0003 £89.00	Order no. 0590 0009 £16.90

Be sure. testo

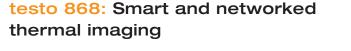
# First choice for heating engineers Smart thermal imagers from Testo

#### testo 865: Switch on, point,

know more



- Infrared resolution 160 x 120 pixels (with testo SuperResolution Technology 320 x 240 pixels) • Automatic detection of hot and cold
- spots • Measuring range: -20 to +280°C



- Price
- Infrared resolution 160 x 120 pixels (with testo SuperResolution Technology 320 x 240 pixels) • Integrated digital camera
  - With testo Thermography App
  - Measuring range:-30 to +100°C; 0 to +650°C



Order no.

0560 8681 £1,099.00

testo 871: Smart thermography for

professional requirements

Price

Order no.

• Infrared resolution 240 x 180 pixels (with testo SuperResolution technology 480 x 360 pixels)

0560 8650

£699.00

- Integrated digital camera
- Wireless measurement data transfer from testo 770-3 clamp meter for electrical thermography and testo 605i for humidity measuring instrument
- With testo Thermography App
- Measuring range: -30 to +100°C; 0 to +650°C





Order no. Price



0560 8712 £1,590.00



- testo 872 thermal imager plus testo 605i thermohygrometer
- Infrared resolution 320 x 240 pixels (with testo SuperResolution Technology 640 x 480 pixels)
- Integrated digital camera and laser marker
- Wireless measurement data transfer from testo 770-3 clamp meter and testo 605i humidity measuring instrument
- With testo Thermography App
- Measuring range: -30 to +100°C; 0 to +650°C



- Order no. Price





testo Thermography App

- · Create compact reports quickly, save them online and send them by email
- · Contains helpful functions for fast, on-site analysis
- Transmit thermal images live to smartphone/tablet
- Download now for iOS or Android free of charge:





# **Contact temperature measurement**

# Contact thermometers testo 925/testo 922

- Ideal for applications in heating, air conditioning and ventilation
- With optional radio probes
- Display of differential temperature (testo 922)

#### **Technical Data**

Measuring range	-50 to +1000°C
Accuracy ±1 digit	±(0.5°C +0.3% of m.v.) (-40 to +900°C) ±(0.7°C +0.5% of m.v.) (remaining measuring range)
Resolution	0.1°C (-50 to +199.9°C) 1°C (remaining measuring range)



# Non-contact temperature measurement

# Compact infrared thermometer testo 810

- Simultaneous measurement of surface temperature and air temperature
- Display of the temperature difference
- Adjustable emission level

#### **Technical Data**

Measuring range	-10 to +50 °C
Accuracy	±0.5 °C
Resolution	0.1 °C

#### testo 810

testo 810 infrared thermometer with integrated NTC temperature sensor, including protective cap, calibration protocol, belt pouch, and batteries

ler no.	0560 0810
ce	£59.00

# Infrared thermometer Smart Probe testo 810i

- Non-contact infrared measurement of surface temperature
- Easy selection of emission level via stored materials list
- Highly visible marking of the measuring spot thanks to 8-point laser

	sto Smart obes App: ownload free
	iOS or
(-20 to -0.1 °C) ±2.5 °C (-30 to -20.1 °C)	Google Play
Resolution 0.1 °C	Download on the App Store

#### testo 810i

testo 810i infrared thermometer with smartphone operation, including batteries and calibration protocol

Order no. 0560 1805 Price £69.00



Ord

Pric



# Non-contact temperature measurement

# Fast infrared thermometers for surface temperature measurement testo 830

#### The testo 830 infrared thermometer range:

- testo 830-T1 with 1-point laser measurement spot marking and 10:1 optics.
- testo 830-T2 with 2-point laser measurement spot marking and 12:1 optics. External type-K t/c can be connected.
- testo 830-T4 with 2-point laser measurement spot marking and 30:1 optics. This instrument measures the surface temperature even of smaller objects at a safe distance. External type-K t/c can be connected.

	testo 830-T1	testo 830-T2	testo 830-T4
Measuring range			
Infrared	-30 to +400 °C	-30 to +400 °C	-30 to +400 °C
Type K (NiCr-Ni)	_	-50 to +500 °C	-50 to +500 °C
Accuracy ±1 digit			
Infrared	±1.5 °C or 1.5 % of m.v. (+0.1 to +400 °C) ±2 °C or ±2 % of m.v. (-30 to 0 °C) the higher value applies	±1.5 °C or ±1.5% of m.v. (+0.1 to +400 °C) ±2 °C or ±2% of m.v. (-30 to 0 °C) the higher value applies	±1,5 °C (-20 to 0 °C) ±2 °C (-30 to -20,1 °C) ±1 °C or 1% of m.v. (remaining range)
Type K (NiCr-Ni)	-	±0.5 °C +0.5%	±0.5 °C +0.5% of m.v.
Resolution	0.1 °C	0.1 °C	0.1 °C
Measurement rate			
Infrared	0.5 s	0.5 s	0,5 s
Type K (NiCr-Ni)	_	1.75 s	1.75 s
Meas. spot marking	1-point laser	2-point laser	2-point laser
Distance to measurement spot	10:1	12:1	30:1 (typical at a distance of 0.7 m to the measurement object

#### testo 830-T2 Set

testo 830-T2 infrared thermometer with protective leather case, includes crossband surface probe (0602 0393), batteries and factory calibration certificate



#### testo 830-T4 Set

testo 830-T4 infrared thermometer with protective leather case, includes crossband surface probe (0602 0393), batteries and factory calibration certificate





#### Order no. Price

0560 8311 £45.00

# testo 830-T2 infrared thermometer includes batteries and factory calibration certificate

Order no. Price 0560 8312 £50.00



# **Temperature and humidity measurement**

## Compact humidity/temperature meter testo 610

- Easy temperature and humidity measurement
- Calculation of dew point and wet bulb temperature
- Illuminated display
- Capacitive humidity sensor with long-term stability

#### **Technical data**

	Temperature - NTC	Humidity - Capacitive
Measuring range	-10 to +50 °C	0 to 100 %RH
Accuracy	±0.5 °C	±2.5 %RH (5 to 95 %RH)
Resolution	0.1 °C	0.1 %RH

#### testo 610

testo 610 thermohygrometer, protective cap, calibration protocol, belt pouch and batteries



Order no. 0560 0610 Price

£99.00

## Humidity/temperature measuring instrument testo 625

- Display of temperature and relative humidity, wet bulb temperature and dew point
- Min/max values
- Display illumination

<b>Technical Data</b>	
Measuring range	0 to +100% RH / -10 to +60°C
Accuracy ±1 digit	±2.5% RH (+5 to +95% RH) / ±0.5°C
Resolution	0.1% RH/0.1°C

#### testo 625

testo 625, humidity/temperature measuring instrument, including plug-in humidity probe head, calibration protocol and batteries

Order no. **Price** 

0563 6251 £175.00



# Temperature/humidity data logging

For simple testing and recording of room temperatures and humidity levels. Testo 174 loggers record up to 16,000 measurements. Download results to free PC software to review and analyse.

#### testo 174T

testo 174T mini temperature data logger, 1-channel, includes wall bracket, batteries and calibration protocol

#### Order no. 0572 1560 Price £39.90



Technical Data	
Sensor type	NTC
Measuring range	-30 to +70 °C
Accuracy ±1 digit	±0,5 °C (-30 to +70 °C)
Resolution	0.1 °C

testo 174T mini data logger set, 1-channel, includes USB interface for programming and reading out the logger, wall bracket, batteries and calibration protocol

Order no. 0572 0561 Price £99.00

#### testo 174H

testo 174H mini temperature and humidity data logger, 2-channel, includes wall bracket, batteries and calibration protocol

#### Order no. 0572 6560 Price £70.00

testo 174H mini data logger set, 2-channel, includes USB interface for programming and reading out the logger, wall bracket, batteries and calibration protocol

Order no. 0572 0566 Price £125.00





<b>Technical Data</b>	
Sensor type	NTC
Measuring range	-20 to +70 °C
Accuracy ±1 digit	±0.5 °C (-20 to +70 °C)
Resolution	0.1 °C
Sensor type	Testo humid. sensor, cap.
Measuring range	0 to 100 %RH*
Accuracy ±1 digit	±3 %RH (2 to 98 %RH) ±0.03 %RH/K
Resolution	0.1 %RH



testo Smart Probes App

Download free

for iOS or Android Google Play

# **Airflow measurement**

## **Compact** vane anemometer testo 410-1

- Measurement of air velocity and air temperature .
- Ideal for spot measurements at ventilation grilles
- Displays m/s, km/h, fpm, mph and kts
- Calculates wind chill and the Beaufort wind force
- Practical: with single-point averaging, max/min and Hold function

#### **Technical Data**

	Temperature - NTC	Velocity - Vane
Measuring range	-10 to +50 °C	0.4 to 20 m/s
Accuracy	±0.5 °C	±(0.2 m/s + 2 % of mv)
Resolution	0.1 °C	0.1 m/s

#### testo 410-1

testo 410-1 vane anemometer including protective cap, wrist strap, calibration protocol and batteries

0560 4101

£79.00



Order no. Price

# Vane anemometer testo 417

- Ideal for testing Part-F building regs and for testing ventilation and extraction fan systems
- Measurement of flow, volume flow and temperature
- Flow direction detection
- Multi-point and timed mean calculation

#### **Technical Data**

	NTC	Vane	Volume flow	
Measuring range	0 to +50°C	+0.3 to +20 m/s	0 to +99,999 m <sup>3</sup> /h	
Accuracy ±1 digit	±0.5°C	±(0.1 m/s +1.5% of m.v.)		
Resolution	0.1°C	0.01 m/s	0.1 m <sup>3</sup> /h (0 to 99.9 m <sup>3</sup> /h) 1 m <sup>3</sup> /h (+100 to +99,999 m <sup>3</sup> /h)	

## Vane anemometer Smart Probe testo 410i

- Measurement of air velocity, volume flow and temperature
- Display of the volume flow
- Parametrisation of the outlet (dimension/ geometry)
- Convenient viewing of readings on a smartphone/ tablet with the testo Smart Probes App

#### **Technical Data**

			45:220
	Temperature - NTC	Velocity - Vane	Ö
Measuring range	-20 to +60 °C	0.4 to 30 m/s	_
Accuracy	±0.5 °C	±(0.2 m/s + 2 % of	mv)
Resolution	0.1 °C	0.1 m/s	

#### testo 410i

testo 410i vane anemometer with smartphone operation, including protective cap, batteries and calibration protocol



Order no. Price

0560 1410 £69.00



- and calibration protocol.
- Funnel set (Ø 200 mm for plate outlets and 3 330 mm for fans).

Order no. 0563 4171 £345.00

330 x	_
esto	testo

Accessories for testo 417	Order no.	Price
testovent 417, funnel set comprising funnel for plate outlets (Ø 200 mm) and funnel for fans (330 x 330 mm)	0563 4170	£170.00
Volume flow straightener testovent 417	0554 4172	£83.00
Flow straightener and funnel set	0554 4173	£229.00

Price

# testo 550 and 557 digital manifolds for heat pump servicing

With many consumers looking to move to 'greener' forms of energy usage, heat pump systems have started to have wider availability and appeal. For engineers involved in service and maintenance of heat pumps, Testo offers the 550 and 557 digital manifolds to help with providing fast and accurate diagnosis of system parameters.

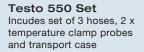
The testo 550 and 557 digital manifolds have the following features:

- Heat pump mode of operation with automatic switching of high side/low side pressures
- Automatic calculation and display of superheat and subcooling values

# testo 550 2-way digital manifold with Bluetooth

For service on refrigeration systems and heat pumps; includes 2 x temperature clamp probes, case and calibration protocol

Order no. 0563 1551 £269.00



Order no. 0563 2551 £299.00





 $\Rightarrow$ 



- Up to 60 refrigerants available in manifold with ability to add new refrigerants via app
- Pressure test mode with ambient temperature compensation for highest accuracy
- Bluetooth link to refrigeration app allowing simple
   on-site reporting

Compared to traditional analogue gauge sets, the testo 550 and 557 allow faster and more accurate measurement of pressure and temperatures within any heat pump or refrigeration system and with the Bluetooth link to our free Refrigeration App, engineers can send fast 'on-site' reports to clients.



### testo Refrigeration App

- Monitor the evaporation and condenser temperature/ pressures and superheat/subcool
- Easy refrigerant update
- Create reports, adds photos of the measurement location and send by email

#### Refrigeration App

Free download for Android & iOS







# Testo flue gas analyser service fast, simple, reliable

Testo understands that you need simple and reliable flue gas analyser service, completed as quickly as possible. Our flue gas analyser service plan offers our lowest cost of ownership over a 5 year period. Instruments serviced by Testo are typically turned around in just 2 working days, or you can choose our optional 24 Hour Express service.

Testo flue gas analyser service includes:

- Functional check of analyser and probe
- Calibration of gas sensors
- Calibration of NO sensor, if fitted
- Calibration of flue temperature
- Calibration of pressure sensors
- Printer, PSU and case checking
- Calibration certificate to ensure compliance
   with BS7967 & EN50379
- Device warranty

# Making Service Simple

Domestic flue gas analysers				
Model	Year	Order number	Price	
Testo 310, 320, 320B, 327	1, 2, 4 & 5	300000 7001	£109	
Testo 310, 320, 320B, 327	3	300000 7002	£149	
Testo 300	1, 2 & 4	300000 7001	£109	
Testo 300	3 & 5	300000 7002	£149	

Commercial	flue	gas	analysers
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Model	Year	Order number	Price
Testo 300LL, 330LL	1, 2, 3 & 4	300000 8001	£149
Testo 300LL, 330LL	5	300000 8005	£209
Testo 300LL, 330LL	6	300000 8006	£329
Testo 300LL NO, 330LL NO	1, 2, 3 & 4	300000 8101	£199
Testo 300LL NO, 330LL NO	5	300000 8105	£359
Testo 300LL NO, 330LL NO	6	300000 8006	£329

#### **Additional services**

	Order number	Price	
Accidental Damage For added peace of mind, option to pay £45 up front for 12 months cover on repairs, including accidental damage. Includes parts found to be required during next service.	300000 0060	£45	
24 Hour Express Turnaround Guaranteed 24 hour turnaround from receipt of analyser by Testo to despatch.	300000 0030	£40	

Terms apply. Please see www.testo.com/en-UK/services/flue-gas-analyser-service

# Testo flue gas analyser 'how to' videos

A range of practical videos to help you get the most our of your Testo flue gas analyser. Simply click on the QR Code to view.



#### testo 320B - Ambient CO





testo 320 - Heating System





testo 300 - Application Video



#### testo 300 - Carrying out a Measurement



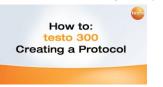


#### testo 300 - Managing Customers





testo 300 - Creating a Report





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