



Committing to the future

testo 327-1/-2

## The Fast and Robust Flue Gas Measuring Instrument for All Important Parameters

NEW!

O<sub>2</sub>

CO<sub>2</sub>

°C

hPa

CO



EN 50379-2 and 1. BImSchV  
TUV-tested for O<sub>2</sub>, °C, hPa



# The new generation of measuring instruments testo 327

The new generation of flue gas analyzers testo 327 is extremely robust and safe. The measuring instruments provide more convenience in application and help to fulfil measurement routines more confidently.

Whether as a robust tool for flue gas measurement on all types of gas heaters or as a starting instrument for new tasks in service and maintenance of gas and oil burners - the measuring instruments are fast, extremely reliable and always ready for use.

## 1. EASY



### The 4-line display:

The powerful LED backlighting guarantees excellent legibility, even in bad light conditions.



### The fast probe connection:

All gas paths are connected with one click. Fast, easy to clean and protected from incorrect connection.

## 2. LONG-LIVING



### State-of-the-art Li-ion rechargeable batteries:

Technology with a high capacity and without memory effect and deep discharge.



### The Testo measuring cells:

Replacing measurement cells is as easy as replacing a battery.





### 3. ROBUST



**Elastomer protective cover:**  
The "second skin" is integrated into the instrument's design and protects from impact in tough day-to-day use.

The protective case can be easily removed and separately cleaned.

**Built-in condensate trap:**  
The new construction - the condensate trap has a separate housing inside the instrument, which protects it from outside influences.

This prevents false measurements resulting from leaks. The condensate trap can be easily and quickly emptied.

**New probe concept:**  
The robust probes filter out dirt right where it occurs, before it can get into the gas path. The easily exchangeable particle filter is built into the probe handle.



# testo 327-1 – the basic instrument for heating constructors and gas fitters

The basic flue gas analyzer for all important parameters.

- Includes all basic functions such as combustive efficiency, flue gas loss, O<sub>2</sub>, CO<sub>2</sub>, CO and flue draught
- Robust and protected from impact with Elastomer covering
- Easy operation
- Excellent handling thanks to easy-to-follow menus and ergonomic housing
- Stable readings in 30 sec.
- The complete range of probes of testo 330 is compatible
- Low eight (approx. 500 g)

## An overview of the instrument's functions

- Easy-to-follow menu
- 4-line segment display
- LED display illumination
- Easy IR printout
- Built-in condensate trap
- TÜV-tested (°C, O<sub>2</sub>)
- EN 50379 Part 2 for O<sub>2</sub>, °C, hPa
- EN 50379 Part 3 for CO
- Small Li-ion battery (1200 ma, battery life 5 h) chargeable in instrument or external charger
- Fast probe connection with single probe plug
- Ambient CO measurement via flue gas probe
- O<sub>2</sub> dual wall measurement (storable)
- Separate air temperature measurement
- CO measurement undiluted (storable)
- Draught measurement
- Spare battery chargeable in instrument or separately
- 8 fuels
- IP 40





The set is delivered complete in a robust system case made of ABS plastic.



Technical data	327-1	327-2
Temperature measurement:		
Measuring range:	-40 to +600 °C	
Accuracy:	±0.5 °C (0 to +99,9 °C)	
	±0.5 % of m.v. (from +100°C)	
Resolution:	0.1 °C	
Measurement value sensor:	Thermocouple Type K (NiCr-Ni) acc. to DIN IEC 584, Part 2, Class 1	
Draught / pressure measurement:		
Draught:	±40 hPa	
Accuracy:	±0.02 hPa (-0.50 to +0.60 hPa)	
	±0.03hPa. (+0.61 to +3.00 hPa)	
	1.5 %of m.v. (+3.01 to +40 hPa)	
Resolution:	±0.01 hPa (fine draught option: 0.001 hPa)	
Delta P:	---	±200 hPa
Accuracy:	---	±0,5 hPa (0 to +50 hPa)
		±1.0 % of m.v. (+50.1 to +100.0 hPa)
		±1.5 % of m.v. (+100.1 to +200.0 hPa)
Resolution:		0.1 hPa (Option Fine Delta P 0.01 hPa)
Determination of efficiency (ETA)		
Measuring range:	0 to 120 %	
Resolution:	0.1 %	
Exhaust loss:		
Measuring range:	0 to 99.9 %	
Resolution:	0.1 %	
O <sub>2</sub> measurement:		
Measuring range:	0 to 21 Vol. %	
Accuracy:	±0.2 Vol. %	
Resolution:	0.1 %	
Adjustment time t <sub>90</sub> :	approx. 40 sec.	
CO <sub>2</sub> recording:		
Display range:	0 to CO <sub>2max</sub>	
Accuracy:	±0.2 Vol. %	
Resolution:	0.01 Vol. %	
Recording:	dig. calculation from aus O <sub>2</sub>	
Adjustment time t <sub>90</sub> :	approx. 40 sec.	
CO measurement:		
Measuring range:	0 to 4000 ppm	
Accuracy: (H <sub>2</sub> content< 10%)	±20 ppm (up to 400 ppm) ±5 % of m.v. (up to 1000 ppm)	
	±10 % of m.v. (up to 4000 ppm)	
Option (H <sub>2</sub> - compensated)		
Measuring range:	---	0 to 8000 ppm
Accuracy:	---	±20 ppm (up to 200 ppm) ±5 % of m.v. up to 2000 ppm)
		±10 % of m.v. (up to 8000 ppm)
Resolution:	1 ppm	
General technical data:		
Weight:	approx. 500 g	
Dimensions:	216x68x47	
Transport / storage temperature:	-20 to +50 °C	
Ambient temperature:	-5 to +45 °C	
Power supply:	Li-ion rech. battery	
Battery life:	> 5h	> 10h
Warranty:	24 months on instrument, probes and measurement cells 12 months on thermocouple and battery (does not apply to wearing parts)	

# testo 327-2 – the service instrument for heating constructors and gas fitters

The fast, reliable flue gas analyzer for the convenient realization of all necessary measurements



Additional  $\Delta P$  measurement  
up to 200 mbar



Always safe: thanks to the diagnosis  
and display of the condition of the  
wearing parts



## on heating systems



Measurement cells can be easily exchanged by the user



Life expectancy of the measurement cells up to 3 years



Optionally H<sub>2</sub>-compensated CO measurement cell for official tests according to EN Norm 50379-2



Powerful Li-ion battery in the testo 327-2, chargeable in the instrument or in external charger (battery life 10 hours with pump operating)

### An overview of the instrument's additional functions

- Easy measurement cell replacement thanks to Testo-specific measurement cells
- Life expectancy of the measurement cells up to 3 years
- Safety thanks to instrument and sensor diagnosis
- IR & IRDA interface for easy readout of data to a PC, printer or Pocket PC
- Bluetooth preparation
- Delta-T measurement
- Delta-P measurement: 2 measuring ranges
- Memory (20)
- Li-ion battery (2,400 mAh), life 10 h.
- TÜV-tested (°C, O<sub>2</sub>, optionally CO)
- Optionally. CO with H<sub>2</sub> compensation
- Officially tested according to EN Norm 50379-2 for °C; O<sub>2</sub>, hPa, Part 3 for CO
- Optionally Part 2 for CO with H<sub>2</sub> compensation

## Fax order form

Qty.	Instrument / options	Order no.
	testo 327-1 flue gas analyzer incl. rech. batteries and calibration protocol, for measuring O <sub>2</sub> , CO, hPa and °C	0632 3201
	testo 327-1 O <sub>2</sub> flue gas analyzer incl. rech. batteries and calibration protocol, for measuring O <sub>2</sub> , hPa and °C	0632 3203
	testo 327-1 CO flue gas analyzer incl. rech. batteries and calibration protocol, for measuring CO, hPa and °C	0632 3204
	testo 327-2 flue gas analyzer incl. rech. batteries and calibration protocol, for measuring O <sub>2</sub> , CO, hPa and °C	0632 3202
Qty.	Upgrades / options	Order no.
	Upgrade CO-H <sub>2</sub> measurement for testo 327-2	0440 3273
	Option: fine draught measurement, resolution 01 Pa, measurement range up to 100 Pa (instead of standard draught measurement) - for testo 327-1, 327-1 O <sub>2</sub> /CO and testo 327-2	0440 3271
	Option: fine differential pressure measurement 0.1 Pa, - for testo 327-2 only -	0440 3272
Qty.	Retrofits	Order no.
	Retrofit O <sub>2</sub> measurement for testo 327-1 CO	on request
	Retrofit CO measurement for testo 327-1 O <sub>2</sub>	on request
Qty.	Set testo 327-1	Order no.
	<ul style="list-style-type: none"> <li>Flue gas analyzer 327-1 incl. rech. batteries and calibration protocol</li> <li>Mains unit 100-240 V for mains operation or battery charging in instrument</li> <li>Compact flue gas probe, immersion depth 180 mm, Ø 6 mm</li> <li>Combustion air probe, immersion depth 190 mm</li> <li>Report printer with wireless infrared interface</li> <li>Instrument cleaner 100 ml</li> <li>Basic system case for instrument, probes and accessories</li> </ul>	0632 3201 0554 1086 0600 9740 0600 9787 0554 0547 0554 1207 0516 3334
Qty.	Set testo 327-2 for heating flitters	Order no.
	<ul style="list-style-type: none"> <li>Flue gas analyzer testo 327-2 incl. rech. battery and calibration protocol option: CO-H<sub>2</sub> measurement</li> <li>Mains unit 100-240 V for mains operation or battery charging in instrument</li> <li>Modular flue gas probe, length 300 mm, Ø 8 mm, TÜV-tested</li> <li>Combustion air probe, immersion depth 190 mm</li> <li>Hose connection set for separate gas pressure measurement</li> <li>Report printer with wireless infrared interface</li> <li>Flexible probe shaft, length 330 mm, Ø 10 mm, Tmax. 180°C</li> <li>Instrument cleaner 100 ml</li> <li>Basic system case for instrument, probes and accessories</li> </ul>	0632 3202 0440 3273 0554 1086 0600 9761 0600 9787 0554 1203 0554 0547 0554 9764 0554 1207 0516 3334
Qty.	Set testo 327-2 for chimney sweeps	Order no.
	<ul style="list-style-type: none"> <li>Flue gas analyzer testo 327-2 incl. rech. battery and calibration protocol option: CO-H<sub>2</sub> measurement</li> <li>Mains unit 100-240 V for mains operation or battery charging in instrument</li> <li>Modular flue gas probe, length 300 mm, Ø 8 mm, TÜV-tested</li> <li>Combustion air probe, immersion depth 190 mm</li> <li>Dual wall clearance probe for measuring O<sub>2</sub> in input air</li> <li>CO multiple hole probe shaft, length 300 mm, Ø 8 mm</li> <li>Flexible probe shaft, length 330 mm, Ø 10 mm, Tmax. 180°C</li> <li>Instrument cleaner 100 ml</li> <li>Basic system case for instrument, probes and accessories</li> </ul>	0632 3202 0440 3273 0554 1086 0600 9761 0600 9787 0632 1260 0554 5762 0554 9764 0554 1207 0516 3334
Qty.	Spare measurement cells:	Order no.
	Spare O <sub>2</sub> measurement cell for testo 327-1, 327-1 O <sub>2</sub>	0390 0047
	Spare CO measurement cell for testo 327-1, 327-1 CO	0390 0046
	Spare O <sub>2</sub> measurement cell for testo 327-2, testo-spezifisch	0390 0092
	Spare CO measurement cell for testo 327-2, testo-specific, w/o H <sub>2</sub> -compensation	0390 0095
	Spare CO measurement cell for testo 327-2, testo-specific, with H <sub>2</sub> -compensation	0390 0109

Qty.	Accessories	Order no.
	Mains unit 100-240 V for mains operation or battery charging in instrument	0554 1086
	Spare battery with charger	0554 1087
	Testo report printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries	0554 0547
	Spare thermal paper for printer (6 rolls), long-term legible	0554 0568
	Instrument cleaner (100 ml)	0554 1207
	Soot pump incl. oil, soot paper, for measuring soot in flue gas	0554 0307
	Hose connection set for separate gas pressure measurement	0554 1203
	Full version easyheat (PC software)	0554 3332
	Upgrade easyheat.mobile for Pocket PC	0554 1211
	Full version easyheat + easyheat.mobile (for PC and Pocket PC)	0554 1210
	ISO calibration certificate flue gas	0520 0003
	Differential temperature set consisting of 2 Velcro probes and temperature adapter	0554 1208
	Spare dirt filters (10 off)	0554 0040
Qty.	Case	Order no.
	Basic system case for instrument, probes and accessories	0516 3334
Qty.	Probes	Order no.
<b>Compact basic flue gas probes available in two lengths, incl. probe stop for fixing, thermocouple NiCr-Ni, hose 1.5 m and dirt filter</b>		
	Compact flue gas probe, length 180 mm, Ø 6 mm, Tmax. 500°C	0600 9740
	Compact flue gas probe, length 300 mm, Ø 6 mm, Tmax. 500°C	0600 9741
	Flexible flue gas probe, length 330 mm, Ø 10.5 mm, connection head 6 mm, Tmax. 180°C, short-term up to 200°C	0600 9742
<b>Modular flue gas probes from the testo 330 program, available in 2 lengths, incl. incl. probe stop for fixing, thermocouple NiCr-Ni, hose 2.2 m and dirt filter</b>		
	Flue gas probe, 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-tested	0600 9761
	Flue gas probe, length 180 mm, Ø 6 mm, Tmax 500 °C	0600 9762
	Flue gas probe, length 300 mm, Ø 6 mm, Tmax 500 °C	0600 9763
	Flexible flue gas probe, length 330 mm, Tmax. 180 °C, short-term up to 200 °C, bend radius max. 90° for measurements in difficult-to-access places	0600 9764
Probe accessories		
	Probe shaft, length 180 mm, Ø 8 mm, Tmax 500 °C	0554 9760
	Probe shaft, length 180 mm, Ø 6 mm, Tmax 500 °C	0554 9762
	Probe shaft, length 300 mm, Ø 8 mm, Tmax 500 °C	0554 9761
	Probe shaft, length 300 mm, Ø 6 mm, Tmax 500 °C	0554 9763
	Probe shaft, length 335 mm, incl. probe stop, Ø 8 mm, Tmax 1000 °C	0554 8764
	Flexible probe shaft, length 330 mm, Ø 10 mm, Tmax 180 °C	0554 9764
	Multiple hole probe shaft, length 300 mm, Ø 8 mm, for CO mean value calculation	0554 5762
	Multiple hole probe shaft, length 180 mm, Ø 8 mm, for CO mean value calculation	0554 5763
	Hose extension 2.8 m, extension line probe-instrument	0554 1202
	Probe stop 6 mm, PTFE, with spring clamp and handle, Tmax 200 °C	0554 3327
	Probe stop 8 mm, PTFE, with spring clamp and handle, Tmax 200 °C	0554 3328
	Probe stop 8 mm, steel, with spring clamp and handle, Tmax 500 °C	0554 3330
	Probe stop 6 mm, steel, with spring clamp and handle, Tmax 500 °C	0554 3329
Further probes		
	Dual wall clearance probe for measuring O <sub>2</sub> in input air	0632 1260
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
	Pipe wrap probe with Velcro	0600 0020
	Fast reaction surface probe, with thermal strip, short-term up to 500 °C	0604 0194

### From

First and last names

Street, building no.

Company

City, postcode

Department

Date, signature