

# Flue gas analyzer

testo 310 | EN - Flue gas analysis the easy way

Simultaneous, individual measurement and display of all relevant measurement parameters in accordance with DIN EN 50379-1, -3. Display configurable via the testo Smart App.

Simultaneous, additional measurements via the testo Smart App (e.g. gas flow pressure, flow and return temperature)

Easy and intuitive menu guidance

Data documented and sent digitally via testo Smart App

Digital customer data management via testo Smart App

Rechargeable lithium battery for over 8 hours of operation

Robust construction

Sensor zeroing in 30 seconds



The new testo 310 II EN flue gas analyzer combines simple functions with a high level of measurement accuracy, and is thus perfect for all basic measurements on heating systems certified according to DIN EN 50379-1, -3. Long battery lifetimes of more than eight hours guarantee you high availability. Simultaneous, individual measurement and display of the measurement parameters in the instrument's high-resolution display are easily possible.

The display can be easily configured via the testo Smart App and is individually settable for the user. Its easy handling and compact design make the testo 310 II EN a robust tool for daily work – even when things get rough.

The printer with Bluetooth® interface, specially developed for the testo 310 II EN, allows you to create clear reports on site as required. The current measurement value can be printed out of any measurement menu during or after the measurement. Via the simple connection to the testo Smart App, further measurements as well as digital documentation, data transfer and digital customer data management can be performed simultaneously. The testo 310 II EN offers all advantages of standard-compliant electronic flue gas measurement in high quality at a perfect cost-benefit ratio.

testo Smart App

Google Play Laden im App Store



## **Product features**



Certified according to **DIN EN 50379-1, -3** 



Additional, simultaneous measurements, digital documentation, data transfer and digital customer data management via the testo Smart App.

### Configurable display

Seven-line display with clear menu structure. Easy to operate and clearly legible. Display configurable via the testo Smart App.

Robust and light instrument for daily use excellently suitable even for rough and dirty

### **Automatic zeroing of sensor**

Automatic zeroing of the gas sensor in only 30 seconds after starting, which can be cancelled

### Rechargeable lithium battery

Operation with rechargeable lithium battery (1500 mAh) - no need to change battery, over eight hours running time, charging via USB-C

## **Condensate trap**

Integrated condensate trap very quick and easy to empty.

Integrated magnets for easy attachment to burner.



### **Probe filter**

Quickly and easily exchangeable.



Documentation via the Bluetooth® interface.



## Order data

## testo 310 II EN Standard kit

testo 310 II EN incl. rech. battery and calibration protocol for the measurement of  $O_2$ , CO, hPa and °C; probe 180 mm with cone; case; mains unit incl. cable; silicon hose for pressure measurement, 5 x particle filters; USB-C cable

Order no. 0563 3106

## testo 310 II EN Printer kit

testo 310 II EN incl. rech. battery and calibration protocol for the measurement of  $O_2$ , CO, hPa and °C; Bluetooth®/IRDA Printer (0554 0621); probe 180 mm with cone; case; mains unit incl. cable; silicon hose for pressure measurement; 5 x particle filters; 1 x roll thermal paper for printer; USB-C cable

Order no. 0563 3107



testo BLUETOOTH®/IRDA printer with wireless infrared interface, 1 roll of thermal paper and 4 AA batteries



Order no. 0554 0621

# Accessories

| Measuring instrument accessories               | Order no. |
|--|-----------|
| USB C mains unit, including cable              | 0554 1108 |
| testo BLUETOOTH®/IRDA printer                  | 0554 0621 |
| Spare thermal paper for printer, permanent ink | 0554 0568 |
| Spare dirt filter                              | 0554 0040 |

## Spare gas sensors

| Spare O <sub>2</sub> sensor | via service |  |
|-----------------------------|-------------|--|
| Spare CO sensor             | via service |  |

| testo Smart Probes   | Order no.    |  |
|--|--------------|--|
| <b>testo 510i,</b> differential pressure measuring instrument with smartphone operation, including hose kit (Ø 4 mm and 5 mm) with adapter, batteries and calibration protocol | 0560 1510    |  |
| <b>testo 115i,</b> clamp thermometer with smartphone operation, for measurements on pipes of 6 to max. 35 mm diameter, including batteries and calibration protocol            | 0560 2115 02 |  |
| Wireless Smart Probe testo 915i with air probe (TC Type K), including batteries and calibration protocol   | 0563 3915    |  |



# **Technical data**

|  | Measuring range  | Accuracy ±1 digit  | Resolution | Adjustment<br>time t <sub>90</sub> |
|--|------------------|--|------------|------------------------------------|
| Temperature<br>(flue gas)                                    | 0 to +400 °C     | ±1 °C (0 to +100 °C)<br>±1.5% of m. v. (>100 °C)   | 0.1 °C     | < 50 sec                           |
| Temperature<br>(ambient<br>temperature)                      | -20 to +100.0 °C | ±1 °C  | 0.1 °C     | < 50 sec                           |
| Draught<br>measurement                                       | -20 to +20 hPa   | ±0.02 hPa (-0,6 to +0,6 hPa)<br>±0.03 hPa (-3 to -0.6 hPa and +0.6 to +3 hPa)<br>±1.5% of m.v. (-20 to -3 hPa and +3 to +20 hPa) | 0.01 hPa   |                                    |
| Pressure<br>measurement                                      | -40 to +100 hPa  | ±0.5 hPa (0 to 50 hPa)<br>±1% of m.v. (remaining measuring range)  | 0.1 hPa    |                                    |
| O <sub>2</sub> measurement                                   | 0 to 21 vol.%    | ±0.2 vol.%   | 0.1 vol.%  | 30 sec                             |
| CO measurement<br>(without H <sub>2</sub> -<br>compensation) | 0 to 4000 ppm    | ±20 ppm (0 to 400 ppm)<br>±5% of m.v. (401 to 2000 ppm)<br>±10% of m.v. (2001 to 4000 ppm)                                       | 1 ppm      | 60 sec                             |
| Ambient<br>CO measurement                                    | 0 to 4000 ppm    | ±20 ppm (0 to 400 ppm)<br>±5% of m.v. (401 to 2000 ppm)<br>±10% of m.v. (2001 to 4000 ppm)                                       | 1 ppm      | 60 sec                             |
| Efficiency testing (Eta)                                     | 0 to 120 %       | -  | 0.1%       | -                                  |
| Flue gas loss  | 0 to 99.9%       | -  | 0.1%       | -                                  |

## General technical data

| Storage temperature        | -20 to +50 °C   |
|----------------------------|---|
| Operating temperature      | -5 to +45 °C  |
| Power supply               | Rechargeable battery 1500 mAh, mains unit 5V/2A               |
| Memory                     | Storage option also via the connection to the testo Smart App |
| Display                    | Graphic 7-line display  |
| Weight with probe          | Approx. 690 g   |
| Dimensions                 | 203 x 83 x 46 mm  |
| Battery life               | > 8 h (pump on, 20 °C ambient temperature)                    |
| Humidity application range | 0 to 80 %RH   |

| 0 to 80 %RH                         | IP40   |
|-------------------------------------|--|
| BT range                            | 60 m (without obstruction)   |
| System requirements testo Smart App | Requires iOS 13.0 or newer; requires<br>Andriod 8.0 or newer; requires mobile end<br>device with Bluetooth 4.0 |
| Warranty conditions                 | siehe Internetseite<br>www.testo.com/warranty  |
| Certification                       | according to DIN EN 50379-1, 3   |



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