

We measure it.



## Compact industrial emissions measurement.

The testo 340 featuring 4 gas sensors combines professional technology, ease of use and solid workmanship in one single instrument.

# Handy, robust and with lots of extra features.

The compact, easy-to-use testo 340 enables you to carry out emissions measurements on industrial combustion and power generation plants both accurately and flexibly. It can be equipped with up to four gas sensors and offers interfaces for a large number of probes – therefore it can be perfectly adapted to suit any application.



## Measuring when you have fluctuating gas concentrations

The measuring ranges of the CO, CO<sub>low</sub>, NO, NO<sub>low</sub> and SO<sub>2</sub> sensors are automatically extended by a factor of 5 in the event of high gas concentrations. The burden placed on the sensor is no higher than at low gas concentrations.



## Integrated, automatically controlled measurement gas pump

automatically keeps the pump flow constant in the event of negative pressure or overpressure of -200 to +50 mbar.



## Integrated condensate trap

eliminates any condensate build-up in the actual gas sensor. The testo 340 notifies you when the condensate trap needs to be emptied.



## Flexible sensor upgrade

The testo 340 is fitted with an O<sub>2</sub> sensor as standard. Three other gas sensors can be selected as required. The sensors can be changed or upgraded on site without the need for any time-consuming test gas adjustment.



## Compact and robust

This handy, extremely robust measuring instrument allows for flexible measurements even in harsh environments.



## Large fuel selection

with 18 standard fuels and 10 other, freely definable fuels for adapting to suit all applications.





#### 4 | Large selection of probes

ensures a high degree of flexibility for all applications. Special flue gas probes for industrial engines are designed for overpressure at the measuring point. Industrial probes are available for harsh process conditions.



#### 5 | Changing probes is easy

When changing probes, simply attach the probe shaft to the probe handle and snap it into place. The robust quick probe connector prevents any confusion.



#### 6 | Indestructible gas sampling hose

is bend-resistant, can be extended up to max. 7.8 m and is space-saving. The probe can remain positioned in the flue gas while the gas sensors are in the zeroing phase



#### TÜV inspection / EN standard

Accuracy checked for O<sub>2</sub>, CO<sub>2</sub>, CO, NO, NO<sub>low</sub>, °C, hPa in accordance with the standard EN 50379 Part 2 and sensor replacement checked (adjustment without test gas)



# Convenient measurement data management.

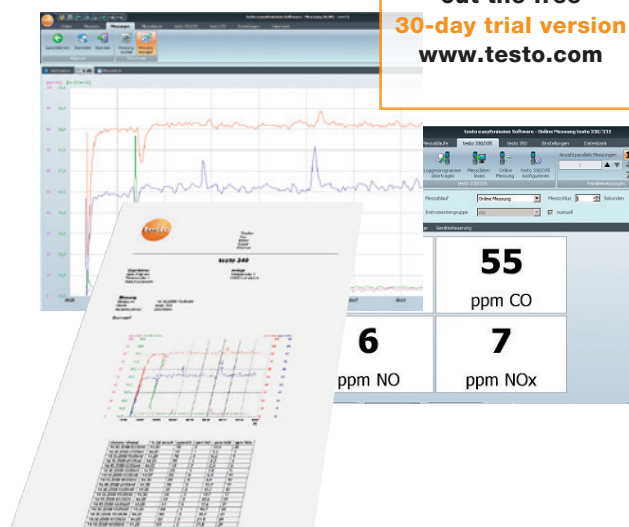
## testo easyEmission software: read, edit, archive and manage data.

The testo easyEmission software can be used to read, edit, archive and manage measurement data from the testo 340. In addition, the measuring instrument can carry out online measurement when directly connected to testo easyEmission via Bluetooth® or USB port. An online measurement allows you to display real-time values on the screen even while the measurement is ongoing. Readings can be displayed in graph or table form. Once the measurement has finished, the readings can easily be transferred to Excel. There is also the option of saving the measurement protocol in PDF format. The software also offers the option of easily creating customer-specific and application-specific measurement protocols depending on the requirement.

### Further advantages of testo easyEmission:

- User-defined measurement intervals
- Adjust instrument settings
- Simple implementation of individual formulas for your own calculations
- Calculation of fuel factors when using customer-specific fuels
- Carry out individual cross-sensitivity adjustment of the gas sensors

Download and try out the free 30-day trial version [www.testo.com](http://www.testo.com)

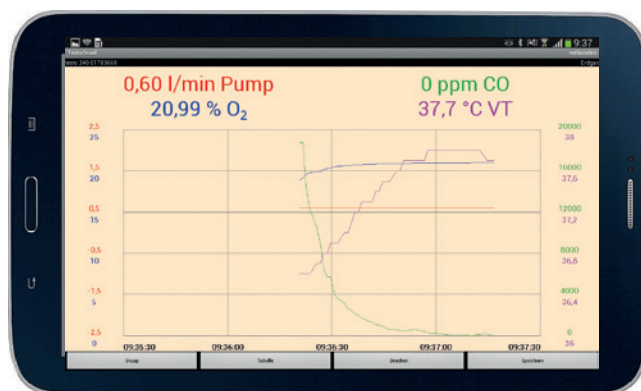


### App: remote control via smartphone / tablet.

The free app turns your Android smartphone or tablet into a display unit for the testo 340. Your measurement can therefore be controlled regardless of measuring location or system size – without taking up any additional time.

### Functions:

- Start/stop current measurements
- Send measurement protocols via e-mail
- Save measurement protocols on the memory card of your smartphone/tablet
- Display measurement data in table or graph form
- Print out current readings on the testo Bluetooth® printer
- Read out the readings from another app or HTML application in accordance with the ZIV specification



### Infrared or Bluetooth®: overview of the data interfaces of the testo 340.

This shows how easy it is to control measurements and read, transmit and print measurement data. These data interfaces are available for easy communication and data transmission:



# The introduction to industrial emission control.

The testo 340's high measurement accuracy and simple handling make it possible to conduct efficient and reliable "emission checks" for the rapid assessment of industrial combustion systems.



## **Spot measurements for up to two hours**

The testo 340 can independently run five user-defined measurement programmes. Spot measurements of up to two hours are therefore possible. "Online" measurement is also possible using Bluetooth or a USB cable.

## **Simultaneous differential pressure measurement**

The simultaneous measurement of flue gas and flow velocity makes it possible to calculate the current mass flow.

## **If there are many different measuring points on your system**

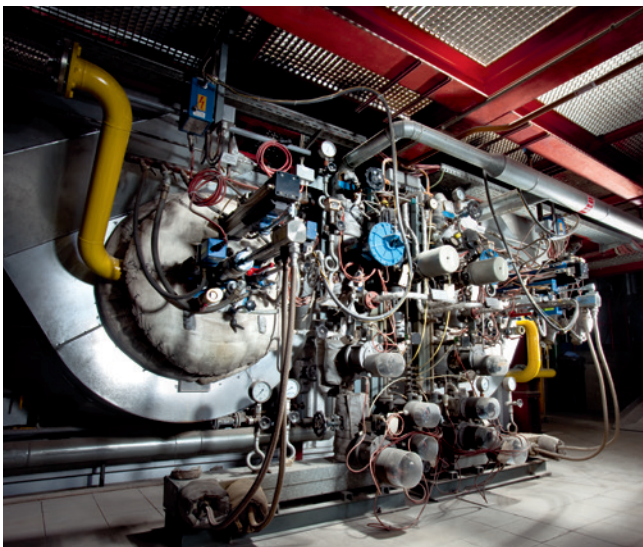
The rechargeable battery life of more than six hours makes it possible for mains-independent operation.

## **Ultimate flexibility in the selection of sensors**

The testo 340 is fitted with an O<sub>2</sub> sensor as standard. Three other gas measurement parameters can be selected as required: CO, CO<sub>low</sub>, NO, NO<sub>low</sub>, NO<sub>2</sub> and SO<sub>2</sub>.

# Servicing and maintenance work on industrial burners and combustion plants.

The testo 340 offers multiple technical functions for safe and efficient commissioning, tuning, efficiency-optimization and troubleshooting when servicing industrial burners.



## **Direct display of fuel-air ratio and efficiency**

All relevant combustion and calculation parameters for optimum tuning are clearly shown in the display.

## **Measuring range extension and automatic sensor protection**

When commissioning burners or carrying out measurements on unfamiliar systems, very high concentrations can occur unexpectedly. In cases like these, the measuring range extension is automatically activated. This protects the sensor, as the load placed on it is no higher than at low concentrations.

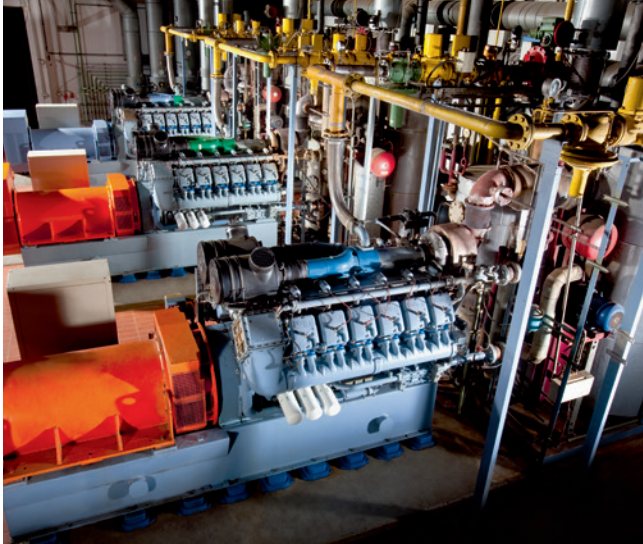
## **Always ready for use – even in tough day-to-day working environments**

The robust housing protects the measuring instrument from knocks.



# Inspections and tuning work on stationary industrial engines.

The versatile options for combining the various gas sensors in the testo 340 offer you ultimate flexibility for measurements on stationary engines.



## **Separate NO and NO<sub>2</sub> measurement**

The real NO<sub>x</sub> value is measured using the NO and NO<sub>2</sub> sensor combination. In gas engines, the NO<sub>2</sub> component of the NO<sub>x</sub> value can fluctuate significantly, so the separate measurement of both gases is necessary to attain correct NO<sub>x</sub> values.

## **Measurements even at high CO concentrations**

At unexpectedly high concentrations (up to 50,000 ppm), the automatic dilution of the sensor with fresh air allows measurements even when the engine conditions are not defined, without negatively affecting the service life of the sensor.

## **Special flue gas probes for industrial engines**

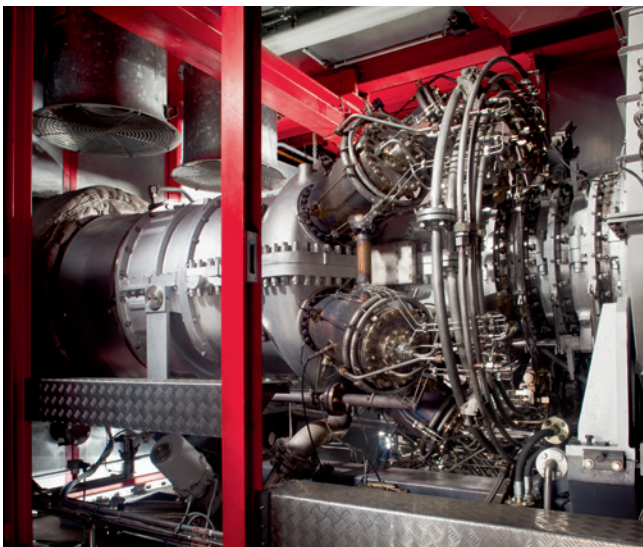
These probes are highly heat-resistant and specially designed to compensate for different pressure conditions, e.g. for measurements before and after the catalytic converter.

## **Engine-specific parameters**

The key parameters for industrial engines, such as O<sub>2</sub>, CO, NO, NO<sub>2</sub>, NO<sub>x</sub> and Lambda, can be displayed simultaneously.

# Emissions measurements on turbines.

To reduce emissions from gas turbines, CO and NO measurements using the testo 340 in low ranges are necessary. The CO<sub>low</sub> and NO<sub>low</sub> sensors of the testo 340 are ideal for this.



## **Special NO<sub>low</sub> sensor for low concentrations**

The NO<sub>low</sub> sensor for measurements on LowNO<sub>x</sub> turbines can be freely combined with other sensors.

## **Measuring range extension and CO<sub>low</sub> sensor**

Thanks to the measuring range extension, the CO<sub>low</sub> sensor can measure up to 2,500 ppm without any problems.

## **Simple and precise test gas adjustment by the user**

If required, the testo 340 can be easily adjusted with test gas on site.

## Ordering data

### testo 340

testo 340 flue gas analyzer incl. battery, calibration protocol and carrying strap, equipped with O<sub>2</sub> sensor and integrated flow/differential pressure measurement

Order no. 0632 3340



The testo 340 must be fitted with a second gas sensor, otherwise the instrument is unable to function. Up to 3 additional sensors can be fitted.



Options	Order no.	
Option CO (H <sub>2</sub> -compensated) measuring module, 0 to 10,000 ppm, resolution 1 ppm		
Option CO <sub>low</sub> (H <sub>2</sub> -compensated) measuring module, 0 to 500 ppm, resolution 0.1 ppm		
Option NO measuring module, 0 to 4,000 ppm, resolution 1 ppm		
Option NO <sub>low</sub> measuring module, 0 to 300 ppm, resolution 0.1 ppm		
Option NO <sub>2</sub> measuring module, 0 to 500 ppm, resolution 0.1 ppm		
Option SO <sub>2</sub> measuring module, 0 to 5,000 ppm, resolution 1 ppm		
Option BLUETOOTH® module		
Option for dilution of all sensors		

Accessories	Order no.	
Transport case for analyzer, sensors and probes	0516 3400	
International mains unit 100-240 V AC / 6.3 V DC; for mains operation or battery charging in instrument	0554 1096	
“easyEmission” software including instrument/PC USB connection cable	0554 3334	
“easyEmission” software multi-user licence	0554 3338	
Testo fast printer IRDA with wireless infrared interface, 1 roll of thermal paper and 4 AA batteries	0554 0549	
testo BLUETOOTH® printer with wireless Bluetooth interface, incl. 1 roll of thermal paper, rech. battery and mains unit	0554 0553	
Spare thermal paper for printer (6 rolls), permanent	0554 0568	
Spare rechargeable battery with charging station	0554 1087	
NO replacement filter, 1 pcs.	0554 4150	
CO replacement filter, 1 pcs.	0554 4100	

Calibration certificates	Order no.	
ISO calibration certificate for flue gas	0520 0003	
ISO calibration certificate for flow, hot wire/vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004	
ISO calibration certificate for flow, hot wire/vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034	



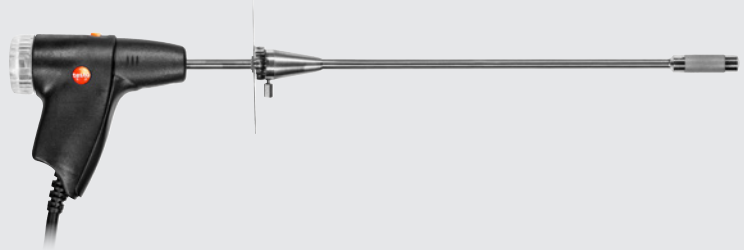


# The Testo **probe** concept.

The probes for the testo 340 were specially designed by our engineers to be able to measure aggressive condensate, high dust concentrations or mechanical stress reliably and accurately, even at very high temperatures – by professionals for professionals.

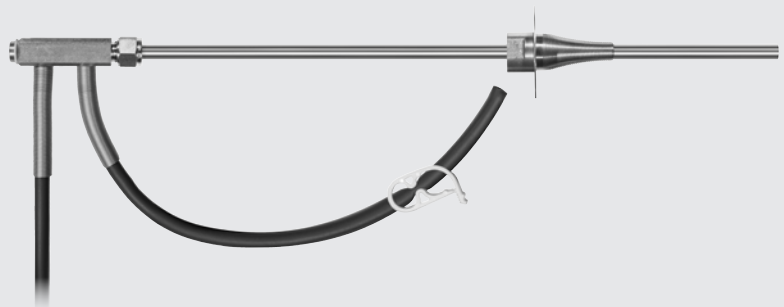
## **Modular standard gas sampling probes**

Standard gas sampling probes are available for different temperature ranges (500 °C / 1000 °C), in different lengths (35 mm/700 mm) and even for dusty flue gas (with preliminary filter).



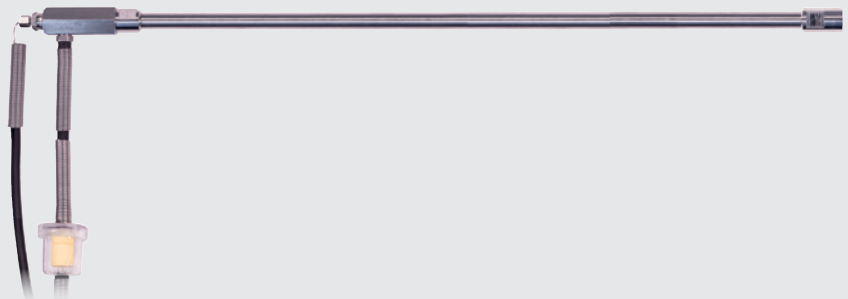
## **Gas sampling probes for measurements on industrial engines**

The gas sampling probes for industrial engines are particularly suitable for measurements on stationary industrial engines (e.g. gas engines / diesel engines).



## **Industrial gas sampling probes**

The unheated or heated industrial gas sampling probe is used for measurements involving high temperatures, high dust loads or wet flue gas. The industrial gas sampling probe can be customized to the relevant measuring task by adding accessories.







testo

340

Location 01	
2010-10-10	
10:47 p.m.	
3,4 Vol. %	O2
80 ppm	CO
41 ppm	NO
10,2 ppm	NO2
51,2 ppm	NOx
180 °C	FT
26 °C	AT
0,6 l/min	Pump

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# Probes

<b>Standard gas sampling probes: Modular flue gas probes, available in 2 lengths, incl. probe stop for fixing, thermocouple NiCr-Ni, hose 2.2 m and dirt filter</b>	<b>Order no.</b>	
Flue gas probe, modular, 335 mm immersion depth, incl. probe stop, thermocouple NiCr-Ni (Ti) Tmax 500 °C and NO <sub>2</sub> /SO <sub>2</sub> special hose 2.2 m	0600 9766	
Flue gas probe, modular, 700 mm immersion depth, incl. probe stop, thermocouple NiCr-Ni (Ti) Tmax 500 °C and NO <sub>2</sub> /SO <sub>2</sub> special hose 2.2 m	0600 9767	
Flue gas probe, modular, 335 mm immersion depth, incl. probe stop, thermocouple NiCr-Ni (Ti) Tmax 1000 °C and NO <sub>2</sub> /SO <sub>2</sub> special hose 2.2 m	0600 8764	
Flue gas probe, modular, 700 mm immersion depth, incl. probe stop, thermocouple NiCr-Ni Tmax 1,000 °C and NO <sub>2</sub> /SO <sub>2</sub> special hose 2.2 m	0600 8765	
Flue gas probe, modular, with preliminary filter Ø 14 mm 335 mm immersion depth, incl. probe stop, thermocouple NiCr-Ni (Ti) Tmax 1,000 °C and NO <sub>2</sub> /SO <sub>2</sub> special hose 2.2 m	0600 8766	
Flue gas probe, modular, with preliminary filter Ø 14 mm 700 mm immersion depth, incl. probe stop, thermocouple NiCr-Ni (Ti) Tmax 1,000 °C and NO <sub>2</sub> /SO <sub>2</sub> special hose 2.2 m	0600 8767	

<b>Probe accessories, standard gas sampling probes</b>	<b>Order no.</b>	
Hose extension; 2.8 m; extension line probe-instrument	0554 1202	
Probe shaft with preliminary filter, length 335 mm, incl. probe stop, Ø 8 mm, Tmax 1,000 °C	0600 3333	
Probe shaft with preliminary filter, length 700 mm, incl. probe stop, Ø 8 mm, Tmax 1,000 °C	0600 3333	
Spare sintered filter (2 pcs.)	0554 3372	
Replacement dirt filter for probe handle; 10 off	0554 3385	
Probe shaft length 700 mm, incl. probe stop, Ø 8 mm, Tmax 500 °C	0554 9767	
Probe shaft length 335 mm, incl. probe stop, Ø 8 mm, Tmax 1000 °C	0554 8764	
Probe shaft length 700 mm, incl. probe stop, Ø 8 mm, Tmax. 1000°C	0554 8765	

<b>Gas sampling probe for measurements on industrial engines</b>	<b>Order no.</b>	
Flue gas probe for industrial engines, 335 mm immersion depth incl. probe stop, integrated condensate trap and heat protection plate, Tmax. +1000 °C, special hose for NO <sub>2</sub> /SO <sub>2</sub> measurements, length 2.2 m	0600 7560	
Flue gas probe for industrial engines with probe shaft preliminary filter, 335 mm immersion depth incl. probe stop, integrated condensate trap and heat protection plate, Tmax. +1000 °C, special hose for NO <sub>2</sub> /SO <sub>2</sub> measurements, length 2.2 m	0600 7561	
Thermocouple for measuring flue gas temperature (NiCr-Ni, length 400 mm, Tmax. +1000 °C) with 2.4 m connection cable and additional temperature protection	0600 8894	
Spare dirt filter (10 pcs.) for condensate trap in the gas sampling hose	0554 3371	

<b>Temperature probe</b>	<b>Order no.</b>	
Mini ambient air probe; for separate ambient air measurement; 0 to +80 °C	0600 3692	
Combustion air temperature probe, immersion depth 60 mm	0600 9797	

<b>Pitot tubes</b>	<b>Order no.</b>	
Pitot tube, 350 mm long, stainless steel, measures flow speed	0635 2145	
Pitot tube, 1000 mm long, stainless steel, measures flow speed	0635 2345	
+Connection hose, silicone, length 5 m, maximum load capacity 700 hPa (mbar)	0554 0440	
Pitot tube, stainless steel, length 750 mm for measuring flow speed incl. temperature measurement, 3-fold hose (5 m length) and heat protection plate	0635 2042	

# Probes

Industrial probes	Details	Order no.	
<p>Industrial probe set 1200 °C, consisting of unheated handle, unheated probe shaft up to +1200 °C flue gas temperature, unheated gas sampling hose incl. inline filter, thermocouple Type K</p> <p><i>The set can optionally come with an extension tube and probe preliminary filter.</i></p>	<p><b>Probe shaft:</b> T<sub>max.</sub> +1200 °C Length 1.0 m, Ø 12 mm Material 2.4856 alloy 625</p> <p><b>Handle:</b> T<sub>max.</sub> +600 °C Material: 1.4404 stainless steel</p> <p><b>Gas sampling hose:</b> 2-chamber hose with PTFE inner core, length 4.0 m</p> <p><b>TC:</b> Type K, Length 1.2 m, Ø 2 mm T<sub>max.</sub> +1200 °C</p>	0600 7610	
<p>Industrial probe set 1800 °C, consisting of unheated handle, unheated probe shaft up to +1800 °C flue gas temperature, unheated gas sampling hose incl. inline filter, unheated handle</p> <p><i>For temperature measurements &gt; +1370 °C, we recommend a thermocouple Type S.</i></p>	<p><b>Probe shaft:</b> T<sub>max.</sub> +1800 °C Material Al<sub>2</sub>O<sub>3</sub> &gt; 99.7% Length 1.0 m, Ø 12 mm</p> <p><b>Gas sampling hose:</b> 2-chamber hose with PTFE inner core, length 4.0 m</p> <p><b>Handle:</b> T<sub>max.</sub> +600 °C Material: 1.4404 stainless steel</p>	0600 7620	
<p>Heated industrial probe set, consisting of heated probe shaft up to +600 °C flue gas temperature, heated gas sampling hose, thermocouple Type K</p> <p><i>The set can optionally come with an extension tube and probe preliminary filter.</i></p>	<p><b>Probe shaft:</b> temperature-proof up to +600 °C Voltage supply 230 V / 50 Hz Length 1.0 m, Ø 25 mm Heating temperature range +200 °C Material stainless steel 1.4571</p> <p><b>Gas sampling hose:</b> Corrugated hose with PTFE inner core Length 4.0 m; outside diameter 34 mm Heating temperature range +100 to +130 °C</p> <p><b>TC:</b> Type K Length 1.2 m, Ø 2 mm T<sub>max.</sub> +1200 °C</p>	0600 7630	
<p>Extension tube 1200 °C for extending the industrial probe set 1200 °C (0600 7610) and heated industrial probe set (0600 7630)</p> <p><i>The extension tube can be screwed directly onto the unheated probe shaft up to +1200 °C and the heated probe shaft up to +600 °C.</i></p>	<p><b>Probe shaft:</b> T<sub>max.</sub> +1200 °C Length 1.0 m, Ø 12 mm Material 2.4856 alloy 625</p>	0600 7617	
<p>Thermocouple Type K, length 2.2 m</p> <p><i>For measuring temperatures &gt; +1370 °C, we recommend a thermocouple Type S.</i></p>	<p>Type K Length 2.2 m, Ø 2 mm T<sub>max.</sub> +1200 °C</p>	0600 7615	
<p>Industrial probe preliminary filter for dust-laden flue gas.</p>	<p>Material porous silicon carbide T<sub>max.</sub> +1000 °C, Length 105 mm, Ø 30 mm Filtration grade 10 µm</p>	0600 7616	
<p>Transport case for unheated industrial probes</p>		0516 7600	
<p>Extension lead for temperature probe, length 5 m, between plug-in head cable and instrument</p>		0409 0063	

# Technical data

	Measuring range	Accuracy $\pm 1$ digit	Resolution	Adjustment time $t_{90}$
<b>O<sub>2</sub> measurement</b>	0 to 25 vol. %	$\pm 0.2$ vol. %	0.01 vol. %	< 20 sec
<b>CO measurement (H<sub>2</sub>-compensated)</b>	0 to 10,000 ppm	$\pm 10$ ppm or $\pm 10\%$ of m.v. (0 to 200 ppm) $\pm 20$ ppm or $\pm 5\%$ of m.v. (201 to 2,000 ppm) $\pm 10\%$ of m.v. (2,001 to 10,000 ppm)	1 ppm	< 40 sec
<b>CO<sub>low</sub> measurement (H<sub>2</sub>-compensated)</b>	0 to 500 ppm	$\pm 2$ ppm (0 to 39.9 ppm) $\pm 5\%$ of m.v. (remaining meas. range) <sup>x</sup> <small><sup>x</sup>Data corresponds to 20°C ambient temperature. Additional temperature coefficient 0.25% of m.v./K</small>	0.1 ppm	< 40 sec
<b>NO measurement</b>	0 to 4,000 ppm	$\pm 5$ ppm (0 to 99 ppm) $\pm 5\%$ of m.v. (100 to 1,999 ppm) $\pm 10\%$ of m.v. (2,000 to 4,000 ppm)	1 ppm	< 30 sec
<b>NO<sub>low</sub> measurement</b>	0 to 300 ppm	$\pm 2$ ppm (0 to 39.9 ppm) $\pm 5\%$ of m.v. (remaining meas. range)	0.1 ppm	< 30 sec
<b>NO<sub>2</sub> measurement*</b>	0 to 500 ppm	$\pm 10$ ppm (0 to 199 ppm) $\pm 5\%$ of m.v. (remaining meas. range)	0.1 ppm	< 40 sec
<b>SO<sub>2</sub> measurement*</b>	0 to 5,000 ppm	$\pm 10$ ppm (0 to 99 ppm) $\pm 10\%$ of m.v. (remaining meas. range)	1 ppm	< 40 sec
<b>Temperature measurement</b> Probe type Type K (NiCr-Ni)	-40 to +1,200 °C	$\pm 0.5$ °C (0 to +99 °C) $\pm 0.5\%$ of m.v. (remaining meas. range)	0.1 °C	
<b>Draught measurement</b>	-40 to +40 hPa	$\pm 0.03$ hPa (-2.99 to +2.99 hPa) $\pm 1.5\%$ of m.v. (remaining meas. range)	0.01 hPa	
<b>Differential pressure measurement</b>	-200 to 200 hPa	$\pm 0.5$ hPa (-49.9 to 49.9 hPa) $\pm 1.5\%$ of m.v. (remaining meas. range)	0.1 hPa	
<b>Absolute pressure measurement</b>	600 to +1,150 hPa	$\pm 10$ hPa	1 hPa	
<b>Derived parameters</b>				
Efficiency	0 to 120%		0.1%	
Flue gas loss	0 to 99.9%		0.1%	
Flue gas dewpoint	0 to 99.9 °C		0.1 °C	
<b>CO<sub>2</sub> determination</b> (Calculation from O <sub>2</sub> )	0 to CO <sub>2</sub> max.	$\pm 0.2$ vol. %	0.1 vol. %	< 40 sec.

\*To avoid absorption, a maximum measurement duration of 2 hours should not be exceeded.



## Country-specific permits for BLUETOOTH® wireless transmission for testo 340

The BLUETOOTH® wireless module used by Testo has permits for the following listed countries, and can only be used in those countries, i.e. BLUETOOTH® wireless transfer may not be used in any other country!

### Europe including all EU member states

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and Turkey

### European countries (EFTA)

Iceland, Liechtenstein, Norway and Switzerland

### Non-European countries

Canada, USA, Japan, Ukraine, Australia, Colombia, El Salvador, Mexico, Venezuela, Ecuador, New Zealand, Bolivia, Dominican Republic, Peru, Chile, Cuba, Costa Rica, Nicaragua, Korea, Belarus.



# Technical data

## Measuring range extension

Single dilution factor 5 (standard)	Measuring range	Accuracy	Resolution
<b>CO measurement (H<sub>2</sub>-compensated)</b>	700 ppm to 50,000 ppm	±10% of m.v. (additional error)	1 ppm
<b>CO<sub>low</sub> measurement (H<sub>2</sub>-compensated)</b>	300 ppm to 2,500 ppm	±10% of m.v. (additional error)	0.1 ppm
<b>NO measurement</b>	500 ppm to 20,000 ppm	±10% of m.v. (additional error)	1 ppm
<b>NO<sub>low</sub> measurement</b>	150 ppm to 1,500 ppm	±10% of m.v. (additional error)	0.1 ppm
<b>SO<sub>2</sub> measurement</b>	500 ppm to 25,000 ppm	±10% of m.v. (additional error)	1 ppm

### Dilution of all sensors, factor 2 (optional, order no. 0440 3350)

<b>O<sub>2</sub> measurement</b>	With measuring range extension switched on for all sensors: 0 to 25 vol. % ±1 vol.% additional error (0 to 4.99 vol.%) ±0.5 vol.% additional error (5 to 25 vol.%)			0.01 vol. %
<b>CO measurement (H<sub>2</sub>-compensated)</b>	700 ppm to 20,000 ppm	±10% of m.v. (additional error)		1 ppm
<b>CO<sub>low</sub> measurement (H<sub>2</sub>-compensated)</b>	300 ppm to 1,000 ppm	±10% of m.v. (additional error)		0.1 ppm
<b>NO measurement</b>	500 ppm to 8,000 ppm	±10% of m.v. (additional error)		1 ppm
<b>NO<sub>low</sub> measurement</b>	150 ppm to 600 ppm	±10% of m.v. (additional error)		0.1 ppm
<b>NO<sub>2</sub> measurement</b>	200 ppm to 1,000 ppm	±10% of m.v. (additional error)		0.1 ppm
<b>SO<sub>2</sub> measurement</b>	500 ppm to 10,000 ppm	±10% of m.v. (additional error)		1 ppm

## General technical data

Memory	100 folders max. 10 measuring locations max. 200 records The max. number of records is determined by the number of folders or sites
Maximum Per folder	
Per measuring location	
User-defined fuels	10 user-defined fuels incl. test gas as fuel
Regulated diaphragm pump	0,6 l/min (regulated) max. 7.8 m (corresponds to two probe hose extensions)
Pump flow	
Hose length	
Max. overpressure of flue gas	+50 mbar
Max. negative pressure of flue gas	-200 mbar
Weight	960 g
Dimensions	283 x 103 x 65 mm
Storage temperature	-20 to +50 °C
Operating temperature	-5 to +50 °C

Display	Graphic display, 160 x 240 pixels
Power supply	Rech. batt. block 3.7 V / 2.4 Ah Mains unit 6.3 V / 2 A
Housing material	TPE PC
Protection class	IP 40
Warranty	2 years (excluding wear parts, e.g. sensors, sensor replacement filter) 12 months CO, NO, CO <sub>low</sub> , NO <sub>low</sub> , NO <sub>2</sub> , SO <sub>2</sub> : 1 year O <sub>2</sub> : 1.5 years
Measuring instrument	
Rechargeable battery	
Sensors	

## Order recommendations

### Basic set for industrial emission control

	Order no.	
testo 340 flue gas analyzer	0632 3340	
Option CO (H2-compensated) measuring module	0393 1100	
Modular flue gas probe 335 mm immersion depth	0600 9766	
International mains unit 100-240 V AC / 6.3 V DC	0554 1096	
Option BLUETOOTH® module	0440 0784	
BLUETOOTH® printer set	0554 0553	
Transport case for analyzer, sensors and probes	0516 3400	

### Inspections and tuning work on stationary industrial engines

	Order no.	
testo 340 flue gas analyzer	0632 3340	
Option CO (H2-compensated) measuring module	0393 1100	
Option NO measuring module, 0 to 3,000 ppm*	0393 1150	
Option NO2 measuring module, 0 to 500 ppm	0393 1200	
Flue gas probe for industrial engines, 335 mm immersion depth	0600 7560	
Option for dilution of all sensors	0440 3350	
International mains unit 100-240 V AC / 6.3 V DC	0554 1096	
"easyEmission" software	0554 3334	
Transport case for analyzer, sensors and probes	0516 3400	

\*For measurements on stationary diesel engines, we recommend the flue gas probe with probe preliminary filter (0600 7561).

### Servicing and maintenance work on industrial burners and combustion plants

	Order no.	
testo 340 flue gas analyzer	0632 3340	
Option CO (H2-compensated) measuring module	0393 1100	
Option NO measuring module, 0 to 3,000 ppm*	0393 1150	
Option SO2 measuring module, 0 to 5,000 ppm	0393 1250	
Modular flue gas probe 335 mm immersion depth	0600 9766	
"easyEmission" software	0554 3334	
Transport case for analyzer, sensors and probes	0516 3400	

\*To measure low NO values, we recommend the NOlow sensor (0393 1152).

### Emissions measurements on turbines

	Order no.	
testo 340 flue gas analyzer	0632 3340	
Option CO (H2-compensated) measuring module	0393 1100	
Option NOlow measuring module, 0 to 300 ppm	0393 1152	
Option NO2 measuring module, 0 to 500 ppm	0393 1200	
Flue gas probe for industrial engines, 335 mm immersion depth	0600 7560	
Option for dilution of all sensors	0440 3350	
International mains unit 100-240 V AC / 6.3 V DC	0554 1096	
"easyEmission" software	0554 3334	
Transport case for analyzer, sensors and probes	0516 3400	

\*To measure low CO values, we recommend the COlow sensor (0393 1102).