testo 310 flue gas analyser

Brief instructions

These brief instructions provide an overview over the most important functions of the product. Before using the product, you must read and follow the instruction manual!

i   The instrument has two configuration menus. The menu that is opened depends on the instrument status when called up.

Commissioning/instrument configuration menu

Area version, measurement units, time and date can be set.

i   When the instrument is switched on initially, the configuration menu is opened automatically.

1. Switch the instrument on: hold down **[⏻]** until all segments are shown on the display.
2. Open instrument configuration menu: Press right function key **[set]** during the initialisation phase.
3. Make settings:

i   **[→]** switches to the next parameter, while **[esc]** takes you to the previous parameter.

Parameter	Explanation
ArEA (area version)	Selecting the area version activates different calculation formulas and associated measurement parameters. > Select area version code: **[▲]** and **[▼]**. **1**: USA, HU, IN, KR / **2**: GB, RU, DK, AU, JP, CN / **3**: NL, SE, TR, RO / **4**: DE, AT, CH, CZ, FR, ES, BE, PL, PT, AR, BR / **5**: IT > Confirm the entry: **[OK]**.
UnI	Only when area version 5 is selected > Measurement procedure according to UnI norm: activate **[On]** / deactivate **[OFF]**.
Pressure, temperature	> Select the unit: **[▲]** and **[▼]**, confirm the entry: **[OK]**.

Parameter	Explanation
Time, date	> Select the parameter: **[→]**, set the values: **[▲]** and **[▼]**, confirm the entry: **[OK]**.

Measurements configuration menu

Fuels and measurement units can be set.

1. Switch the instrument on: hold down **[⏻]** until all segments are shown on the display.
2. Open Measurements configuration menu: After the instrument initialisation phase, press the right function key (**[set]**).
3. Make settings:

ℹ️ **[→]** switches to the next parameter, while **[esc]** takes you to the previous parameter.

Parameter	Explanation
Fuel	> Select the fuel: **[▲]** and **[▼]**, switch to the next parameter: **[→]**.
UnI	Only when area version 5 is selected
	> Measurement procedure according to UnI norm: activate **[On]** / deactivate **[OFF]**.
Pressure	> Select the unit: **[▲]** and **[▼]**, switch to the next parameter: **[→]**.
Temperature	> Select the unit: **[▲]** and **[▼]**, confirm the entries: **[OK]**.

Preparing measurements

After switching on the instrument or selecting a flue gas (🌡️) or ambient CO probe (📟) measurement, the gas sensors are zeroed and the combustion air temperature is measured: the flue gas probe must be close to the burner's fresh air inlet duct!

1. Switch the instrument on: hold down **[⏻]** until all segments are shown on the display.
2. Select the fuel: **[▲]** and **[▼]**, confirm the entry: **[OK]**.

Measurement type	Explanation
Flue gas	> Select 🌡️ : **[⇄]** → **[OK]**.
	Area version 1-4, area version 5 (**Uni ON**)
	1. Start measurement: **[Start]**.

Performing the measurement

Measurement type	Explanation
Flue gas	> Edit reading display line 1/line 2: **[▲]** / **[▼]**.
	Option for area version 5
	> End measurement before the measurement period has lapsed: **[Stop]**.
	- Once the measurement period has lapsed, the measurement stops automatically.
	> Scroll through measurement result line 1/line 2: **[▲]** / **[▼]**.
	- Display of Uni measurement mean values.
	2. End measurement: **[Stop]**.
	> Remove flue gas probe from the flue gas duct and purge with fresh air.
Ambient CO	> Select 🏠 : **[⬌]** → **[OK]**.
	1. Start measurement: **[Start]**.
	2. End measurement: **[Stop]**.
Draught	> Select 🔧 : **[⬌]** → **[OK]**.
	- The flue gas probe must be outside the flue.
	1. Start measurement: **[Start]**.
	2. After zeroing, position the flue gas probe in the centre of flow.
	3. End measurement: **[Stop]**.
Differential pressure	> Select ΔP : **[⬌]** → **[OK]**.
	1. Open the flue gas probe filter chamber
	2. Remove the particle filter.
	3. Remove the sealing plug from the holder.
	4. Close the gas path with the sealing plug.
	5. Check that the sealing plug is fitted tightly.
	6. Fit silicone hose on to the flue gas probe shaft. The probe shaft openings must be closed.
	7 Start measurement: **[Start]**.
	8. Connect the silicone hose to the sampling point.
	9. Pressurise the system.
	10 End measurement: **[Stop]**.

i [🖨] can be used to send the measurement results to a protocol printer.