

## SWITCH ON – MEASURE – SAVE DATA – DONE!

SUPER COMPACT AND WITH JUST 20 X 13 CM **SMALLER THAN A DIN A4 PAPER SHEET** THE ECOM-B **O<sub>2</sub>/CO ANALYSER** REDEFINES THE CONCEPT OF A PALM INSTRUMENT FULLY NEW.

A SURPRISING AND THOUGHT-OUT DESIGN WHICH FUNDAMENTALLY DIFFERS FROM COMPETITION PRODUCTS.

### ECOM-B LIGHT

- HANDY COMPACT ANALYSER FOR SHORT-TIMED COMBUSTION CONTROLS AT HOME AND SMALL-SIZED PLANTS WITH A PERFORMANCE OF UP TO 70 KWH.
- BASIC MODEL WITH O<sub>2</sub> / CO  
LONGLIFE SENSORS
- NO SENSOR OPTIONAL
- CO SENSOR OVERRANGE  
PROTECTION & FRESH AIR PURGE  
W/O. MEASUREMENT INTERRUPTION



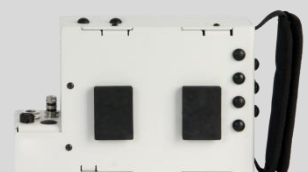
Fitted with **Longlife** sensors the ecom-B is the incarnation of durability also provided by **its robust aluminum housing** which is better than plastics executions up to catch up with tough daily handling.

The special water trap with its **stretchable and exchangeable pad** efficiently catches the condensate and protects the instrument interior –especially the sensitive sensors unit- against any moisture infiltration.

Integral, backlit display, backlit keypad, probe and 3-chamber sampling tubing with integral water trap, T-Room sensor all fit easily in the almost **1.5 kg** light instrument concept.

Despite mini dimensions it still offers space for a **third, optional sensor measuring NO**.

- BACKLIT DISPLAY & KEYPAD
- LITHIUM-ION BATTERY
- BLUETOOTH LOW ENERGY –BLE-
- ROBUST AND ULTRA-LIGHT  
ALUMINIUM PROTECTIVE HOUSING



Backside with magnets -  
easy positioning on boiler casing

TECHNICAL DATA & FEATURES BASIC MODEL				✓ = Standard	● = Option
MEASUREMENT	RANGE	RESOLUTION	ACCURACY		
Maximal amount of electrochemical gas sensors			*= Higher value prevails		3
O <sub>2</sub>	0...21 %	0,01 vol. %	± 0,3 vol. %		✓
CO ppm (H <sub>2</sub> -comp.)	0...4000 ppm	1 ppm	± 20 ppm / 5% of meas. value*		✓
CO ppm (n. H <sub>2</sub> -comp.)	0...2000 ppm	1 ppm	± 20 ppm / 5% of meas. value*		●
NO	0...5000 ppm	1 ppm	± 5 ppm / 5% of meas. value*		●
T-Gas	0...500°C	1°C	± 2°C (0-125°C) ± 3°C (125-250°C) ± 4°C (250-500°C)		✓
T-Air	0...99°C	1°C	± 1°C		✓
Pressure / ΔP	± 100 hPa	0,01 hPa	± 2%		✓
CALCULATION			RANGE		
CO <sub>2</sub>			0...CO <sub>2</sub> max		✓
Combustion efficiency (ETA)			0...120%		✓
Excess air (Lambda)			>1		✓
Losses			0...100%		✓
CO <sub>(U)</sub> undiluted			x ppm		✓
Dew point			x°C		✓
mg/m <sup>3</sup>			x mg/m <sup>3</sup>		✓
mg/kWh			x mg/kWh		✓
O <sub>2</sub> reference			x %O <sub>2</sub>		✓
NOx via NO measurement (estimated NOx value)			= 1.05 NO		●
GAS SAMPLING / GAS TEMPERATURE MEASUREMENT					
Sampling probe (BB) unheated, Ø 8 mm, 150 mm with thermocouple				1	✓
3-chamber sampling tubing (approx. 1.5 m)				2	✓
Metal fixation cone				3	✓
COMBUSTION AIR SENSOR					
T-Room sensor (PT 2000) length 100 mm, with cable (approx. 1,1 m) and fixation cone					✓
DATA INDICATION / INPUT					
LCD display; 70 x 40 mm; backlitged, graphic- and zoom capable, max. 8 lines				4	✓
Backlitged keypad for safe operation also by unfavourable surrounding lighting				5	✓
DATA PROCESSING / PRINTOUT					
Internal memory for 300 measurements					✓
Integral sending diode for external, optional IR thermal printer				6	✓
Infrared thermal printer				7	●
Interface Bluetooth Low Energy (BLE)					✓
Data exchange with ecom® PC software MiniDV, DAS.NT.2					✓
MEASUREMENT GAS PREPARATION					
Condensation trap with optical monitoring				8	✓
Stretchable, exchangeable particle- and humidity-absorbing pad				8	✓
POWER SUPPLY					
Mains power / Integral Li-Ion battery 6V / 3,3 Ah; external battery charger					✓
External battery charger, cable length approx. 3 m					✓
OPERATION SAFETY					
Temperature trend indication for stream core search					✓
Automatic CO switch-off (= sensor protection & prolongation of life span)					✓
Fresh air purge w/o. measurement interruption (= other values measured w/o. time loss)					✓
Fresh air purge after operation					✓
Pressure-compensated gas channel plate (optimized gas flow w/o. pressure fluctuation)					✓
Longlife sensors					✓
Integral Li-Ion- battery with long-lasting operation					✓
CONNECTION					
Serial interface for data transfer					✓
STORAGE / TRANSPORT					
Aluminium housing with powerful back magnets				9	✓
Length-adjustable holding strap with Velcro strip				10	●
Textile transport bag				11	●
DIMENSIONS   WEIGHT   OTHERS					
Dimensions: (W x H x D) approx. 200 x 125 x 70 mm (7.8 x 4.9 x 2.7 in.)					
Weight: approx. 1.5 kg (3.1 pd.) complete with sampling system					
Calibration certificate, issued after instrument calibration into calibration chamber					✓
Tested and approved acc. to 1. BImSchV (O <sub>2</sub> /CO/Temp./Pressure) and EN 50379-2					✓

## ECOM-B | ALTERNATIVE VERSION

- As 108509 but with CO non H<sub>2</sub>-compensated
- Without fresh air purging
- With T-Room stick (instead of T-Room sensor)

Item no. 104764

## GAS SENSOR | OPTION

NO MEASUREMENT, 0-5000 PPM

(Item no. 102819)

## DIFFERENTIAL PRESSURE | ACCESSORY

TUBING, for differential pressure measurement (± 0-100 hPa), length approx. 1.5 m

Item no. 102884

## DATA OUTPUT / TRANSFER | ACCESSORY

## ECOM-P, INFRARED PRINTER 7

For the documentation of the measured values

- Weight: approx. 350 g (12.3 oz.)
- Dim.: appr. 77 x 77,5 x 40 mm (3 x 3 x 1.5 in.)
- Delivered with 1 printer roll & batteries

Item no. 104630

## DATA CABLE -&gt; PC (USB)

- For transfer of data stored in analyser memory into PC / Laptop
- Length approx. 1.5 m (4.9 in.)

Item no. 104003

## T-ROOM MEASUREMENT | ALTERNATIVE

## T-ROOM STICK PT 2000

- Dim.: approx. 28 x Ø 11 mm (1.1 x Ø 0.04 in.)
- Weight: approx. 5 g (0.17 oz.)

(Item no. 102888)

## T-ROOM PROBE PT 2000

- Length 260 mm (10 in.), 3 m (10 ft.) cable

(Item no. 104569)

## T-GAS MEASUREMENT | ALTERNATIVE

## PROBE 220 MM (8.6 IN.) W. TUBING 2.2 M (7.2 FT.)

Instead of standard probe / tubing

(Item no. 104807)

## SOOT MEASUREMENT | MANUAL

## SOOT PUMPT KIT

Consisting of each 1 manual soot, pump, soot comparison scale, tube of piston grease, socket wrench and 200 soot papers  
Length: 39 cm (15 in.); weight: approx. 0.5 kg (1.1 pd.)

Item no. 50538

DIMENSIONS   WEIGHT   OTHERS	
Aluminium housing with 10 years guarantee	✓
Admissible ambient temperature: +5... +40°C	
Admissible storage temperature: -20... +50°C	
Fuel types: 5 pre-programmed, up to 16 possible	
Recommended maintenance interval: 1 year	
Item no. basic model: 108509	

CONSUMABLES   FOR STOCK	
Condensate pads (pack of 5 pcs)	Item no. 102776
Printer paper roll (for ecom-P)	Item no. 56181



### TRANSPORT | ACCESSORIES

#### TEXTILE TRANSPORT BAG

- Material: tough, washable textile, black
- Interior structure individually customizable: 2 padded dividers (approx. 38,5 x 10,5 x 1 cm) adjustable at choice thanks to Velcro® pieces on bag sides and bottom
- Back wall with fixing rubber bands
- Lid closable with all-round zipper
- Outside pocket (right side) for the stowage of e.g. power charger, tools or else
- Robust & adjustable ecom® comfort shoulder carrying strap
- Shock-absorbing protective corners
- Dimensions: approx. 40 x 25 x 22 cm
- Weight: approx. 1,6 kg

Item no. 108283

### SAMPLING SYSTEM | ACCESSORY

#### PROBE EXTENSION PIECE

With flexible silicone centerpiece.

Slipped over probe tip by measurements at hardly accessible, angled measurement openings.

Item no. 103492



Remark: Because of the missing thermocouple within the extension piece, no accurate gas temperature can be measured. The value which finally reaches the thermocouple of the probe has been influenced by the heat loss along the gas conveyance path.



Equipment example

## ecomMANDER APP

- ⚙️ SIMPLE CONNECTION
  - Automatic identification of ecom instrument via wireless pairing
  - Recording of last active connection
  - Use not limited to a specific instrument
- ⚙️ SIMPLE HANDLING
  - Remote monitoring of measurement
  - Start / stop of CO sensor purge
  - Printout of measurement results
  - Switch to stand-by mode
- ⚙️ SMART DATA PROCESSING
  - Display of all measurement parameters
  - Organisation of customer data
  - Recording and management of measurement values
  - Archiving and / or export of measurement values via PDF

Download free of charge



THE BELOW ICONS ILLUSTRATED IN ALL OUR PRODUCT INFORMATION SHEETS DO HAVE THE FOLLOWING MEANING:



### EXTREMELY PRECISE - FOR EXACT MEASUREMENT ACCURACY.

After completion of the production process, the instrument is then professionally calibrated into a calibration chamber in order to eliminate possible cross-sensitivities. In order to measure in practice with the highest possible exactitude.



### EXTREMELY EFFICIENT - ENHANCED CONVEYANCE CAPABILITY.

The product is fitted with a particularly performing pump which -compared to other instruments- is conveying many times over within the same period of time.



### EXTREMELY BROAD REACH - WIRELESS COMMUNICATION.

Product fitted with radio module or Bluetooth LE (Low Energy) for wireless, unerring data transfer.



### EXTREMELY SAFE – FOR MORE OPERATION SAFETY & PRODUCT LONGEVITY.

The model is or can be equipped with operation safety technique which protects its sensible components and contribute herewith to an increased life span.



### EXTREMELY STABLE - SHOCK-PROOF.

Increased protection for safe transport / unintentional fall.  
All-round protection provided by robust transport case resp. protective housing.



### EXTREMELY COOL - DRIED SAMPLED GAS AND INCREASED READING ACCURACY.

The model is or can be equipped with a gas cooler which cools down the sampled gas and herewith makes sure that especially water-soluble gas components do not dilute but get conveyed to the sensors.



### EXTREMELY LOSS-FREE – FOR SWIFT GAS TRANSPORT WITHOUT WASHOUT EFFECTS.

Special tubing either part of the standard model delivery package or available optionally provide with a quick gas transport, free of wash-out effects. Water-soluble components do not get lost but reach the measuring sensors.



### EXTREMELY COMPLETE - ALL INCLUSIVE – PRODUCT READY-TO-MEASURE.

The product is completely ready to measure and does not require any further components to be operated. Respectively a kit of essential consumables is covered in the delivery package, thus avoiding being forced to quit a measurement process because of a missing spare filter or else small part.

WATCH AT VIDEO CLIPS ON



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AND EXPERIENCE UNIQUE



MEASUREMENT TECHNOLOGY!



## FOCUSED APPLICATION RESPECTIVELY USER PROFILE ECOM® FLUE GAS ANALYSERS



**CRAFTS**  
Chimney-sweep  
Heating installer



**SERVICE ORGANISATIONS & FACILITY-MANAGEMENT**  
Maintenance & adjustment of home smaller boilers. Manufacturers of smaller boilers; Facility Management (building maintenance companies).  
Service divisions with many technicians.



**BURNER & BOILER MANUFACTURERS**  
Companies manufacturing resp. maintaining larger boiler and burner.  
Service divisions with lots of technicians.



**COGENERATION**  
Companies manufacturing resp. maintaining engines or combined heat and power plants. An exact NO<sub>x</sub> measurement is of specific importance in this sector.



**OIL & GAS**  
Raw material production  
Transport  
Processing



**INDUSTRIAL APPLICATIONS**  
Mining  
Foundries  
Cement factories  
Cookery plants  
Chemical process heating  
Waste combustion, etc.



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