

**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**



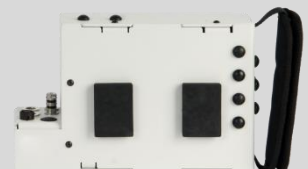
- **BACKLIT DISPLAY & KEYPAD**
- **LITHIUM-ION BATTERY**
- **BLUETOOTH LE (OPTIONAL)**
- **ROBUST AND ULTRA-LIGHT ALUMINIUM PROTECTIVE HOUSING**

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**.



Backside with magnets - easy positioning on boiler casing

**ECOM-B LIGHT – FLUE GAS ANALYSER**

✓ = Standard ● = Option



MEASUREMENT	RANGE	RESOLUTION	ACCURACY	
Maximal amount of electrochemical gas sensors			*= Higher value prevails	<b>3</b>
O <sub>2</sub>	0...21 %	0,1 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>	✓
GAS SAMPLING / GAS TEMPERATURE MEASUREMENT				
Sampling probe (BB) unheated, Ø 8 mm, 150 mm with thermocouple				<b>1</b> ✓
3-chamber sampling tubing (approx. 1.5 m)				<b>2</b> ✓
Metal fixation cone				<b>3</b> ✓
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; backlit, graphic- and zoom capable, max. 8 lines				<b>4</b> ✓
Backlit keypad for safe operation also by unfavourable surrounding lighting				<b>5</b> ✓
DATA PROCESSING / PRINTOUT				
Internal memory for 300 measurements				✓
Integral sending diode for external, optional IR thermal printer				<b>6</b> ✓
Infrared thermal printer				<b>7</b> ●
Interface Bluetooth Low Energy (BLE)				●
Data exchange with ecom® PC software MiniDV, DAS.NT.2				✓
MEASUREMENT GAS PREPARATION				
Condensation trap with optical monitoring				<b>8</b> ✓
Stretchable, exchangeable particle- and humidity-absorbing pad				<b>8</b> ✓
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				<b>9</b> ✓
Length-adjustable holding strap with Velcro strip				<b>10</b> ●
Sling Pack				<b>11</b> ●
Textile transport bag				<b>12</b> ●
Plastics transport case				<b>13</b> ●
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				

**ECOM-B | ALTERNATIVE VERSION**

- As **104763** 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 -> PC (USB)**

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



**Item no. 104003**

**BLUETOOTH LOW ENERGY (option)**  
Direct equipment. Transfer / recording of measurement data

**(Item no. 107017)**

**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	
Calibration certificate, issued after instrument calibration into calibration chamber	✓
Tested and approved acc. to 1. BImSchV and EN 50379-2	✓
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	

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

**Item no. 104763**



**TRANSPORT | ACCESSORIES**

**RUCKSACK / SLING PACK 11**

- Material: tough fabrics. Colours: blue/black
- 1 main compartment, 1 slim side compartment, both with zippers
- Length-adjustable straps (Velcro)
- Dim.: appr. 37 x 47 x 12.5 cm (14.5 x 18.5 x 4.9 in.)
- Weight: approx. 0,3 kg (10.6 oz.)



**Item no. 104662**

**TEXTILE TRANSPORT BAG 12**

- Document compartment in bag lid
- Storage compartments for analyser, IR printer, charger
- With shoulder carrying strap
- Dim.: approx. 38 x 30 x 10 cm (15 x 11.8 x 3.9 in.)
- Weight: approx. 0.7 kg (1.5 pd.)



**Item no. 106547**

**PLASTICS TRANSPORT CASE 13**

- Colour: light grey with blue clips
- Compartments for analyser, IR printer, charger
- Dim.: approx. 460 x 360 (incl. grip) x 110 mm (18.1 x 14.1 x 4.3 in.)
- Weight: approx. 1.25 kg (2.7 pd.)



**Item no. 104741 – Available as long as stock lasts.**



**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.



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 or upgradeable with radio module, Bluetooth or Wi-Fi option 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<sup>®</sup> 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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