# **OPEN UP – SWITCH ON – MEASURE – SAVE DATA – DONE!**

SUPER COMPACT AND WITH JUST 25 X 18 CM **SMALLER THAN A DIN A4 PAPER SHEET** THE ECOM-B **O2/CO ANALYSER** SETS ITS OWN STANDARDS.

A SURPRISING AND THOUGHT-OUT DESIGN WHICH FUNDAMENTALLY DIFFERS FROM USUAL PRODUCTS AVAILABLE FOR THE COMBUSTION CONTROL AT SMALL-SIZED PLANTS.







# ECOM

# ECOM-B COMPACT

- HANDY COMPACT ANALYSER FOR SHORT-TIMED COMBUSTION CON-TROLS 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



ecom-B THE flue gas analyser in miniature size



Backside with magnets easy positioning on boiler casing

# **FLUE GAS ANALYSIS** CRAFTS - CONTROL MEASUREMENT ECOM-B COMPACT



ECOM-B | ALTERNATIVE VERSION

ECOM

TECHNICAL DA			DEL ✓ = Standard	Onting	
				• = Option	
MEASUREMENT	RANGE		ACCURACY	2	
Maximal amount of el	021 %	0,1 vol.%	*= Higher value prevails ± 0,3 vol. %	3	
O <sub>2</sub> CO ppm (H <sub>2</sub> -comp.)	021 %	1 ppm	± 0,3 vol. % ± 20 ppm / 5% of meas. value*	1	
CO ppm (n. H <sub>2</sub> -comp.)	02000 ppm	1 ppm	± 20 ppm / 5% of meas. value*	~	
NO	05000 ppm	1 ppm	± 5 ppm / 5% of meas. value*	•	
T-Gas	0500°C	1°C	± 2°C (0-125°C) ± 3°C (125-250°C) ± 4°C (250-500	0°C)	
T-Air	099°C	1°C	± 1°C	· · · · · · · · · · · · · · · · · · ·	
Pressure / $\Delta P$	± 100 hPa	0,01 hPa	± 2%	· ·	
CALCULATION		.,.	RANGE		
CO <sub>2</sub>			0CO₂max	1	
Combustion efficiency (ETA)			0120%	1	
Excess air (Lambda)			>1	1	
Losses			0100%	✓	
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 TEMPERATU	IRE MEASURE	MENT		
Sampling probe (BB	3) unheated, $\varnothing$ 8 m	m, 150 mm (5.9	in.) with thermocouple	✓	
3-chamber sampling tubing, approx. 1.5 m (4.9 ft.)					
Metal fixation cone 3					
T-Room sensor (PT	2000) L = 100 mm	n (3.9 in.), with c	able approx. 1,1 m (3.6 ft.), cone	✓	
DATA INDICATION	/ INPUT				
LCD display, 70 x 40	0 mm, backlighted,	graphic- and zo	oom capable, max. 8 lines	3 ✓	
Backlighted keypad for safe operation also by unfavourable surrounding lighting					
DATA PROCESSIN	IG / PRINTOUT				
Internal memory for 300 measurements					
Integral sending diode for external, optional IR thermal printer 6					
Infrared thermal printer 🛛					
Interface Bluetooth Low Energy (BLE)					
Data exchange with ecom <sup>®</sup> PC software MiniDV, DAS.NT.2 ✓					
MEASUREMENT GAS PREPARATION					
Condensation trap with optical monitoring 8					
Stretchable, exchangeable particle- and humidity-absorbing pad					
POWER SUPLY					
Mains power / Integral Li-Ion battery 6V / 3,3 Ah; external battery charger					
External battery charger, cable length approx. 3 m (10 ft.)					
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)					
Pressure-compensated gas channel plate (optimized gas flow w/o. pressure fluctuation) Longlife sensors					
Integral Li-Ion- battery with long-lasting operation					
Integral Li-Ion- battery with long-lasting operation					
Serial interface for d	lata transfer			√	
TRANSPORT					
Robust aluminium housing with swivelling and lockable protection lid.					
Shoulder carrying strap 10 •					
	DIMENSIONS   WEIGHT   OTHERS				
Dimensions: W x H x D   approx. 250 x 180 x 80 mm (9.8 x 7 x 3.1 in.) by closed protection lid					
W x H x D   approx. 250 x 350 x 80 mm (9.8 x 13.7 x 3.1 in.) by unfolded protection lid					
Weight: approx 2.1 kg (1.6 nd) complete with sampling system					

Printer paper roll (for ecom-P) Item no. 56181				
Condensate pads (pack of 5 pcs) Item no. 102776				
CONSUMABLES   FOR STOCK				
Item no. 50538				
wrench and 200 soot papers Length: 39 cm (15 in.); weight: approx. 0.5 kg (1.1 pd.)				
pump, soot comparison scale, tube of piston grease, socket				
Consisting of each 1 manual soot,				
SOOT PUMPT KIT				
SOOT MEASUREMENT   MANUAL				
(Item no. 104569)				
T-ROOM PROBE PT 2000           • Length 260 mm (10 in.), 3 m (10 ft.) cable				
(Item no. 102888)				
<ul> <li>Dim.: approx. 28 x Ø 11 mm (1.1 x Ø 0.04 in.)</li> <li>Weight: approx. 5 g (0.17 oz.)</li> </ul>				
T-ROOM STICK PT 2000				
T-ROOM MEASUREMENT   ALTERNATIVE				
(Item no. 107017)				
BLUETOOTH LOW ENERGY (option) Direct equipment. Transfer / recording of measurement data				
Item no. 104003				
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. 104630				
<ul> <li>Weight: approx. 350 g (12.3 oz.)</li> <li>Dim.: appr. 77 x 77,5 x 40 mm (3 x 3 x 1.5 in.)</li> <li>Delivered with 1 printer roll &amp; batteries</li> </ul>				
For the documentation of the measured values				
DATA OUTPUT / TRANSFER   ACCESSORY ECOM-P, INFRARED PRINTER 🗸				
(± 0-100 hPa), length approx. 1.5 m (4.9 ft.)				
TUBING, for differential pressure measurement				
DIFFERENTIAL PRESSURE   ACCESSORY				
(Item no. 102819)				
NO MEASUREMENT, 0-5000 PPM				
GAS SENSOR   OPTION				
Item no. 103277				
Without fresh air purging     With T-Room stick (instead of T-Room sensor)				
• As 102802 but with CO non H <sub>2</sub> -compensated				



Weight: approx. 2.1 kg (4.6 pd.) complete with sampling system



# ECOM

#### DIMENSIONS | WEIGHT | OTHERS

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				
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 102802				





WATCH AT VIDEO CLIPS ON

COM = M











## TRANSPORT | ACCESSORY

#### SHOULDER CARRYING STRAP 10

- Material: webbing. Colour: black.
- With 2 length-adjustable tension chords
- Dimensions: approx. 164 x 2 cm (65 x 0.7 in.)

#### Item no. 102852

## RUCKSACK / SLING PACK

- Material: tough fabrics. Colors: 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



#### 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.

reach the measuring sensors.

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

N	/
112	1/2
$\Rightarrow$	Č
71	TF
	N





# **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



## 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.

# FOCUSED APPLICATION RESPECTIVELY USER PROFILE ECOM<sup>®</sup> FLUE GAS ANALYSERS





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.



Service divisions with many techn OIL & GAS Raw material production Transport

Processing



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



ECOM<sup>®</sup> PRODUCTS – YOUR PARTNERS FOR: BURNER DIAGNOSIS GAS LEAK DETECTION FLUE GAS ANALYSIS PRESSURE MEASUREMENT FIND YOUR ECOM<sup>®</sup> SALES POINT AND DEALER ON: WWW.ecom.de