

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



## **ECOM-CL2**

**THE PERFECT COMBINATION OF WALL-POSITIONED AND FLOOR-STANDING INSTRUMENT!**

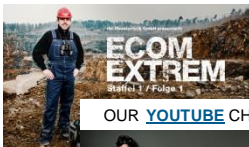
- COMPACT ANALYSER FOR SHORT-TIME MEASUREMENTS AT HOME AND SMALL-SIZED PLANTS WITH A PERFORMANCE OF UP TO 70 KWH.
- BASIC MODEL WITH O<sub>2</sub> / CO LONGLIFE SENSORS
- NO SENSOR OPTIONAL
- CO SENSOR OVERRANGE PROTECTION & FRESH AIR PURGE W/O. MEASUREMENT INTERRUPTION
- CONDENSATE TRAP WITH ELECTRONIC LEVEL MONITORING
- INTEGRAL THERMAL **QUICK-PRINTER**
- BACKLIT DISPLAY & KEYPAD
- BLUETOOTH LOW ENERGY (BLE) OPTIONAL
- LITHIUM-ION BATTERY
- BATTERY RECHARGING ALSO BY CLOSED HOUSING LID
- SCHOKPROOF & ULTRALIGHT ALUMINIUM PROTECTIVE HOUSING

MEASUREMENT	RANGE	RESOLUTION	ACCURACY * = Higher value prevails	✓ = Standard ● = Option ■ = depending on basic package
Maximal amount of electrochemical gas sensors				3
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   T-ROOM MEASUREMENT				
Sampling probe 220 mm (BB) Ø 8 mm, with thermocouple				✓
3-chamber sampling tubing 2.20 m (type B)				✓
Metal fixation cone				✓
T-Room sensor (PT 2000) length 100 mm, with cable (approx. 1.1 m) & fixation cone				✓
DATA INDICATION / INPUT				
LCD display, 70 x 40 mm, backlit, graphic- and zoom capable, max. 8 lines				✓
Backlit keypad for safe operation also by unfavourable surrounding lighting				✓
DATA PROCESSING / PRINTOUT				
Internal memory for 300 measurements				✓
Data exchange with ecom® PC-Software MiniDV, DAS.NT.2				✓
Integral thermal quick-printer 58 mm				✓
Interface for Bluetooth Low Energy (BLE) data transfer				●
CONNECTION				
Serial interface for data transfer				✓
MEASUREMENT GAS PREPARATION				
Condensate trap with electronic level monitoring and fine dust filter				✓
POWER SUPPLY				
Mains power / battery operation via integral Lithium-Ion battery 6 V / 3,8 Ah				✓
External battery charger 230 V / 50 Hz~; 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)				✓
STORAGE   TRANSPORT				
Aluminium housing with magnets on the back for operation as boiler-positioned analyser				✓
Aluminium housing with folding tilt stand for operation as floor-standing analyser				✓
Shoulder carrying strap				✓
DIMENSIONS   WEIGHT   OTHERS				
Dim.: by closed lid, approx. 340/230/95 mm; by open lid, approx. 340/350/180 mm (L x H x W)				
Weight: approx. 3 kg complete with sampling probe				
Calibration certificate, issued after instrument calibration into calibration chamber				✓
Tested and approved acc. to 1. BImSchV (O <sub>2</sub> /CO/Temp./Pressure) & EN 50379-2 (CO-H <sub>2</sub> -comp) / EN 50379-3 (CO non H <sub>2</sub> -comp.)				✓
Aluminium housing with 10 years guarantee				✓
Admissible ambient temperature: +5... +40°C; max. 90 % rF, non-condensing				
Admissible storage temperature: -20... +50°C				
Fuel types: up to maximal 16 possible				
Recommended interval for check/maintenance: 1 year				
ECOM-CL2   BASIC PACKAGES AT CHOICE				
O <sub>2</sub> , CO-H <sub>2</sub> -compensated, T-Room sensor				Item no. 106443
O <sub>2</sub> , CO-H <sub>2</sub> -compensated, T-Room stick				Item no. 106444
O <sub>2</sub> , CO-n.-H <sub>2</sub> -compensated, T-Room sensor				Item no. 106445
O <sub>2</sub> , CO-n.-H <sub>2</sub> -compensated, T-Room stick				Item no. 106446
GAS SENSOR   OPTION				
NO MEASUREMENT, 0-5000 PPM				(Item no. 106093)
DIFFERENTIAL PRESSURE   ACCESSORY				
TUBING, for differential pressure measurement (± 0-100 hPa), length approx. 1.5 m (4.9 ft.)				Item no. 102884
DATA OUTPUT / TRANSFER   OPTION				
BLUETOOTH Low Energy (BLE), Direct equipment Transfer / Recording of measurement values (Operation compatible APP in development)				(Item no. 106070)
DATA OUTPUT / TRANSFER   ACCESSORY				
DATA CABLE -> PC (USB)				Item no. 104003
• For transfer of data from analyser memory to PC or Laptop				
• Length approx. 1.5 m				
T-ROOM MEASUREMENT   ALTERNATIVE				
T-ROOM PROBE PT 2000				Item no. 104569
• Length 260 mm, with 3 m cable				
SOOT MEASUREMENT   MANUAL				
SOOT PUMPT KIT				Item no. 50538
Consisting of each 1 manual soot, pump, soot comparison scale, tube of piston grease, socket wrench and 200 soot papers				
Length: approx. 39 cm; weight: approx. 0.5 kg				
SAMPLING SYSTEM   ACCESSORY				
PROBE EXTENSION PIECE				Item no. 103492
With flexible silicone centerpiece. Slipped over probe tip by measurements at hardly accessible, angled measurement openings.				
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.				
CONSUMABLES   FOR STOCK				
Thermal printer paper roll				Item no. 56181
Soot filter				Item no. 50508
Fine dust filters (pack of 10 pcs)				Item no. 100568

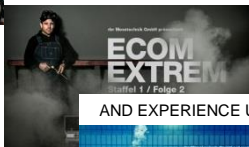


- 1 Robust, ergonomic carrying grip
- 2 Slots for shoulder carrying strap
- 3 Fixation clips for optional probe extension piece
- 4 T-Room sensor with fixation cone
- 5 Backlit LCD display
- 6 Integral thermal quick-printer. Paper width 58 mm.
- 7 Position-independent condensate trap with electronic condensate monitoring and fine dust filter
- 8 Backlit keypad for safe operation also by unfavourable lighting conditions
- 9 Serial interface RS232 (behind tubing)
- 10 Gas sampling probe length 220 mm with 3-chamber tubing 2.20 m and fixation cone. Simple and quick tubing re-stowage after measurement thanks to sample line guidance.

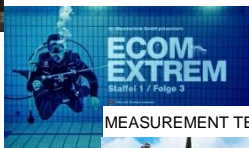
WATCH AT VIDEO CLIPS ON



OUR [YOUTUBE](#) CHANNEL



AND EXPERIENCE UNIQUE



MEASUREMENT TECHNOLOGY!



*View backside*

3 powerful magnets for safe positioning at boiler casing - also in case of lower magnetic pull material properties.

Easy and safe transport thru instant sticking on metal parts of professional service cars.



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.

**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.



ECOM® PRODUCTS – YOUR PARTNERS FOR:  
 BURNER DIAGNOSIS    GAS LEAK DETECTION  
 FLUE GAS ANALYSIS    PRESSURE MEASUREMENT

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