



ECOM-D

■ **HANDY AND COMPACT ANALYSER FOR CONTROL MEASUREMENTS**

- **BASIC MODEL WITH O₂ / CO LONGLIFE SENSORS – FURTHER GAS SENSORS POSSIBLE**
- **ERGONOMIC SAMPLING PROBE, UNHEATED, LENGTH 300 MM**
- **3-CHAMBER TUBING 2.6 M**
- **HIGH-VALUE T-GAS PLUG**
- **BACKLIT DISPLAY & KEYPAD**
- **BLUETOOTH LOW ENERGY (BLE) OR WIFI MODULE OPTIONAL**

- **LI-ION BATTERY**
- **ROBUST & ULTRALIGHT PROTECTION HOUSING – GUARANTEED 10 YEARS**



Two powerful rear magnets for instrument positioning on metal surfaces...
... effortless release thanks to the detaching aid.



With length-adjustable holding strap. Can be fitted to the individual hand size thanks to Velcro strip.



View with mini gas cooler and T-Room stick – instead of T-Room sensor



View ecom-D in full, optional equipment: thermal quick printer module, mini gas cooler and NOx sampling tubing

ECOM-D FLUE GAS ANALYSER

✓ = Standard ● = Option



MEASUREMENT	RANGE	RESOLUTION	ACCURACY	
Maximal amount of gas sensors			*= Higher value prevails	4
O ₂	0...21 %	0,1 vol.%	± 0,3 vol. %	✓
CO ppm (H ₂ -comp.)	0...4000 ppm	1 ppm	± 20 ppm / 5% of meas. value*	✓
CO ppm (H ₂ -comp.)	0...10.000 ppm	1 ppm	± 20 ppm / 5% of meas. value*	●
CO ppm (n. H ₂ -comp.)	0...20.000 ppm	1 ppm	± 40 ppm / 10% of meas. value*	●
CO %	0...63.000 ppm	5 ppm	± 100 ppm / 10% of meas. value*	●
CO ₂ IR sensor	0...20%	0,1 vol.%	± 0,5 vol. % / 5% of meas. value*	●
NO	0...5000 ppm	1 ppm	± 5 ppm / 5% of meas. value*	●
NO Low	0...500 ppm	0,1 ppm	± 5 ppm / 5% of meas. value*	●
NO ₂	0...1000 ppm	1 ppm	± 5 ppm / 5% of meas. value* ⁽¹⁾	●
NO ₂ Low	0...100 ppm	0,1 ppm	± 5 ppm / 5% of meas. value* ⁽¹⁾	●
SO ₂	0...5000 ppm	1 ppm	± 5 ppm / 5% of meas. value* ⁽¹⁾	●
SO ₂ Low	0...100 ppm	0,1 ppm	± 5 ppm / 5% of meas. value* ⁽¹⁾	●
H ₂	0...20.000 ppm	1 ppm	± 100 ppm or 5 % of measured value*	●
H ₂ S ppm	0...1000 ppm	1 ppm	± 10 ppm / 5% of meas. value*	●
CH ₄ IR sensor	0...5%	0,01 vol.%	± 0,3 vol.% / 3% 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%	✓
Soot (manual)	0...9			●
CALCULATION		RANGE		
CO ₂		0...CO ₂ max		✓
Combustion efficiency (ETA)		0...120%		✓
Excess air (Lambda)		>1		✓
Losses		0...100%		✓
CO _(U) undiluted		x ppm		✓
Dew point		x°C		✓
mg/m ³		x mg/m ³		✓
mg/kWh		x mg/kWh		✓
O ₂ reference		x %O ₂		✓
GAS SAMPLING GAS TEMPERATURE MEASUREMENT				
Sampling probe (SU), unheated 250 mm (9.8 in.), Ø 10 mm, with thermocouple				✓
Fixation cone with Teflon protective ring and stainless-steel tip	2			✓
3-chamber tubing, length 2.6 m (8.5 ft.)				✓
High-value T-Gas plug	4			✓
NOx sampling tubing with Teflon sleeve				●
COMBUSTION AIR SENSOR				
T-Room sensor (PT 2000) with cable ca. 3 m (10 ft.), magnet fixation & fixation cone				✓
DATA INDICATION / INPUT				
LCD display 79 x 53 mm, 240 x 160 Dots, backlit, graphic-/zoom-capable	6			✓
Keypad with alphanumerical input function	7			✓
DATA PRINTOUT				
Integral thermal quick-printer, paper width 58 mm (2.2 in.)	8			●
External IR-printer 58 mm (2.2 in.)	9			●
Address on protocol changeable by user (via keypad)				●
DATA PROCESSING				
Slot for MM card; data logger function	10			✓
Bluetooth Low Energy (BLE) interface				●
Wi-Fi interface				●
Data exchange with gratis ecom [®] PC software MiniDV, DAS.NT.2, DAS 5.01				✓
Disturbance diagnosis with ecom-AK via connection cable				✓
CONNECTIONS				
Charging connection at instrument				✓
Multi-function interface	10			✓
USB interface for data transfer	10			✓
Analog outputs				●
MEASUREMENT GAS PREPARATION				
Condensation trap with optical monitoring and moisture-absorbing pad	11			✓
Condensation trap with electronic monitoring				●
Electric mini gas cooler				●

GAS SENSORS | OPTIONS

NO MEASUREMENT, 0-5000 PPM (Item no. 103994)	
NO MEASUREMENT, LOW 0-500 PPM (Item no. 104124)	
NO ₂ MEASUREMENT, 0-1000 PPM ⁽¹⁾ (Item no. 104112)	
NO ₂ MEASUREMENT, LOW 0-100 PPM ⁽¹⁾ (Item no. 104125)	
SO ₂ MEASUREMENT, 0-5000 PPM ⁽¹⁾ (Item no. 103767)	
SO ₂ MEASUREMENT, LOW 0-100 PPM ⁽¹⁾ (Item no. 107052)	
CO PPM ENHANCED RANGE, 0-10.000 PPM (Item no. 50102221)	
CO% MEASUREMENT, 0-63.000 PPM ⁽²⁾ (Item no. 103902)	
CO 0-20.000 PPM (NON H ₂ -COMP.), inst. of H ₂ -comp. (Item no. 104126)	
CO ₂ MEASUREMENT 0-20%, IR SENSOR (Item no. 104774)	
H ₂ MEASUREMENT 0-20.000 PPM (Item no. 107343)	
H ₂ S MEASUREMENT 0-1000 PPM (Item no. 104816)	
CH ₄ -MESSUNG 0-5%, IR SENSOR (Item no. 105094)	
⁽¹⁾ Gas cooler and NOx tubing recommended. ⁽²⁾ Additional filtering recommended.	
GAS PREPARATION OPTIONS	
CONDENSATE TRAP, with electronic monitoring – instead of condensate trap with optical control (Item no. 104626)	
MINI GAS COOLER, with electronic monitoring – instead of condensate trap with optical control (Item no. 103843)	
DIFFERENTIAL PRESSURE ACCESSORY	
TUBING, for ΔP measurement (± 0-100 hPa), Length approx. 1.5 m (4.9 in.) Item no. 104111	
DATA PRINTOUT OPTIONS	
THERMAL QUICK-PRINTER MODULE 8 INTEGRAL 58 mm paper width (Item no. 103840)	

⁽¹⁾ Guaranteed by use of NOx sampling tubing.

FLUE GAS ANALYSIS

CRAFTS – SERVICE – CONTROL MEASUREMENT **ECOM-D**



POWER SUPPLY	
Mains / battery operation	✓
Mains charger, cable length approx. 3 m (10 ft.)	✓
Battery charging via car cigarette lighter	•
Lithium-Ion battery 6 V / 3,3 Ah with long-operation time	✓
OPERATION SAFETY	
Temperature trend indication for stream core search	✓
Automatic self-test during calibration phase	✓
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)	✓
Electronic condensation monitoring	•
Longlife sensors	✓
Shock-protection thanks to rubber pieces at corners and front housing	12 ✓
TRANSPORT	
Cordura® length-adjustable holding strap with Velcro strip	13 ✓
Sling pack	14 •
Plastics transport case	15 •
Textile transport bag	16 •
Hardtop case made out of plastics	17 •
DIMENSIONS WEIGHT OTHERS	
Dimensions (W x H x D): approx. 400 x 275 x 205 mm (15.7 x 10.8 x 8 in.)	
Weight: approx. 7 kg (15 pd.)	
Calibration certificate, issued after instrument calibration into calibration chamber	✓
TÜV-tested and -approved acc. to 1. BImSchV and EN 50379-2	✓
Aluminium housing with 10 years guarantee	✓
Admissible ambient temperature: +5... +40°C; max. 90 % rH, non-condensing	
Admissible storage temperature: -20... +50°C	
Fuel types: up to maximal 16 possible	
Recommended interval for check/maintenance: 1 year	

Item no. 103801

Close-up view upper compartment:
MM card slot, USB & AUX connections,
connections pressure and 4Pa sensor.



Close-up view lateral connection panel: gas inlet, T-Gas, pressure.



DATA PRINTOUT | OPTIONS

ECOM-P, INFRARED PRINTER 9

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 RECORDING | ACCESSORY

MM CARD 2 GB

Item no. 102469



DATA TRANSFER | ACCESSORY & OPTIONS

DATA CABLE USB, ANALYSER -> PC

- For data transfer to PC
- Length approx. 2 m (6.5 ft.)



Item no. 55818

OPTION BLUETOOTH LOW ENERGY (BLE)

Direct equipment

Transfer / Recording of measurement values

Remark: Option cannot be installed simultaneously to Wi-Fi option.

(Item no. 107368)

WI-FI OPTION V1, Direct equipment

For use of APP "Remote display"

Remark: Option cannot be installed simultaneously to Bluetooth option.



(Item no. 104121)

[APP short description on penultimate page.](#)

CONSUMABLES | FOR STOCK

Fine dust filter* (pack of 10 pcs) Item no. 103903

Printer paper roll (module) Item no. 50513

Printer paper roll (ecom-P) Item no. 56181

* For gas cooler

TRANSPORT | ACCESSORIES

RUCKSACK / SLING PACK ¹⁴

- 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

PLASTICS TRANSPORT CASE ¹⁵

- Colour: grey with blue folding locks and foam inserts
- Compartments for instrument, 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 stocks last.

TEXTILE TRANSPORT BAG ¹⁶

- Document compartment in bag lid
- Storage compartments for analyser, IR printer, charger
- With shoulder carrying strap
- Dim.: appr. 64 x 40 x 12 cm (25.1 x 15.7 x 4.7 in.)
- Weight: approx. 1.7 kg (3.7 pd.)



Item no. 106548

HARDTOP TRANSPORT CASE ¹⁷

Top comfort style (analyser operable out of case)

Large storage space

- With inner holding device for ecom-D analyser
- Shock- and impact-absorbing corners
- Lockable (keys included)
- Inner padded grip in ergonomic design
- Corner stiffening made out of semi-hard plastics, shock-protective strip
- Dimensions: approx. 515 x 325 x 175 mm (20.2 x 12.7 x 6.8 in)
- Weight: approx. 5.5 kg (12.1 pd.)



Item no. 104141

SOOT MEASUREMENT | MANUAL

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



POWER SUPPLY | ACCESSORY

CAR CHARGING CABLE

Item no. 30000460



ΔT MEASUREMENT | ACCESSORIES

CONTACT SENSOR T-ROOM (PT2000)

- Range: -20 to 100°C
- Resolution: 0,1°C
- Measurement uncertainty: ± 1°C
- Suitable for pipe Ø up to 100 mm
- Cable length: 3 m (10 ft.)



Item no. 12019

CONTACT SENSOR GAS (PT2000)

- Technical data as 12019

Item no. 106982

Special version for connection to high-value plug.



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

FLOW VELOCITY / DYNAMIC PRESSURE

Internal hardware unit – enables the measurement (item doesn't cover any probe of random type)

- Range: 0-50 m / sec
- Accuracy: ± 0,2 m/s or ± 1% of measurement value
- Resolution: 0.1 m/s

Data valid by use of Prandtl / Pitot probe (not included in package – available from specialized trade).

(Item no. 107201)

DYNAMIC PRESSURE PROBE*

- Range: up to 3 m / sec
- Accuracy: ± 2.5% of measuring range final value
- Length: approx. 250 mm (9.8 in.)
- Tubing/cable approx. 2.5 m (8.2 ft.) & fixation cone

Length = 250 mm (9.8 in.) Item no. 104118

Length = 1000 mm (39.3 in.) Item no. 104560

Length = 1500 mm (59 in.) Item no. 105333

* The offered item is **not** a Pitot tube.



GAS SAMPLING | ALTERNATIVE

PROBE TIPS SB/SU Ø 10 MM

Length 300 mm (1 ft.) (Item no. 100912)

Length 350 mm (1.1 ft.) (Item no. 106832)

Length 500 mm (1.6 ft.) (Item no. 100914)

NO_x TUBING (with high-value T-Gas socket)

Length 3.5 m (11.4 ft.) (Item no. 103796)



SIMPLE AND MODERN DATA MONITORING & TRANSFER WITH THE APP "REMOTE MONITOR" FOR ECOM INSTRUMENTS
 - CURRENTLY AVAILABLE IN CHINESE, DANISH, DUTCH, ENGLISH, FRENCH, GERMAN SWEDISH -



Download App from Store

Build up connection with analyser...



Generate printout at analyser
 Saving of current measurement
 in mobile device

Edition of measurement values (succession + fade in/out)



Recording of name, address + notes



Customer information incl. geo data



Export data: PDF, csv



By e-mail, Cloud, printout

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



OUR [YOUTUBE](#) CHANNEL



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_x 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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BURNER DIAGNOSIS GAS LEAK DETECTION
FLUE GAS ANALYSIS PRESSURE MEASUREMENT

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