



ECOM-J2KNpro ENGINE

- PROFESSIONAL PACKAGE FOR LONG-LASTING MEASUREMENTS AT COGENERATION PLANTS
- DETACHABLE RADIO CONTROL MODULE WITH COLOUR DISPLAY
- FITTED WITH **O₂, CO, NO, NO₂**, LONGLIFE GAS SENSORS
- OPTIONAL PACKAGE H₂S / CH₄ FOR BIOGAS MEASUREMENT
- CO SENSOR OVERLOAD PROTECTION & FRESH AIR PURGE WITHOUT MEASUREMENT INTERRUPTION
- UNHEATED GAS SAMPLING PROBE Ø 8 MM, LENGTH 350 MM WITH NOX 2-CHAMBER TUBING 3.5 M FIXATION CONE WITH MINI HEAT PROTECTION SHIELD
- T-ROOM STICK (INS. T-SENSOR)
- BRUSHLESS, LOW MAINTENANCE, HIGH-PERFORMING GAS PUMP FOR QUICK GAS CONVEYANCE.
- GAS COOLER WITH ELECTRONIC LEVEL MONITORING & AUTOMATIC CONDENSATE EVACUATION
- THERMAL QUICK-PRINTER 58 MM
- BLUETOOTH LOW ENERGY –BLE-
- BACKLIT DISPLAY & KEYPAD
- HIGH-VALUE T-GAS PLUG
- LITHIUM-ION BATTERY
- **HELIX POWER CORD**
- **INCL. MM CARD**
- **INCL. USB DATA CABLE**
- ROBUST AND ULTRALIGHT ALUMINIUM HOUSING
- ROBUST TRANSPORT CASE, ALUMINIUM-FRAMED – **XL SIZE**



TECHNICAL DATA & FEATURES BASIC MODEL				✓ = Standard	● = Option
MEASUREMENT	RANGE	RESOLUTION	ACCURACY		
Maximal amount of gas sensors			*= Higher value prevails		6
O ₂	0...21 %	0,01 vol.%	± 0,3 vol. %		✓
CO ppm (H ₂ -comp.)	0...4000 ppm °	1 ppm	± 20 ppm / 5% measured value*		✓
NO	0...5000 ppm	1 ppm	± 5 ppm / 5% measured value*		✓
NO ₂	0...1000 ppm	1 ppm	± 5 ppm / 5% measured value*		✓
SO ₂	0...5000 ppm	1 ppm	± 5 ppm / 5% of meas. value*		●
SO ₂ (Low CO)	0...5000 ppm	1 ppm	± 5 ppm / 5% of measured value* ⁽¹⁾		●
CxHx (catalytic)	0...4 %	0,01 vol.%			●
H ₂ S	0...5000 ppm	1 ppm	± 50 ppm / 5% meas. value*		●
CH ₄	0...100% vol.	0.1 vol.%	± 5% of meas. range end 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 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 350 mm , Ø 8 mm , with thermocouple				1	✓
NOx sampling tubing, 2-chamber with Teflon sleeve, length 3,5 m				2	✓
Fixation cone with Teflon protective ring and mini heat protection shield				3	✓
High-value T-Gas plug				4	✓
COMBUSTION AIR SENSOR					
T-Room stick				5	✓
DATA INDICATION / INPUT					
Detachable monitoring/controlling module Frequency 868 MHz, coverage by free sight approx. 70 m With magnet on the back for positioning at metal surfaces				6	✓
LCD colour display 78 x 58 cm, 320 x 240 dots, backlit, graphic/zoom-capable				7	✓
Keypad with alphanumerical input function				8	✓
DATA PRINTOUT					
Integral thermal quick-printer, paper width 58 mm				9	✓
Matrix printer 58 mm - instead of thermal printer					●
Address on protocol changeable by user (via keypad)					✓
DATA PROCESSING					
Slot for MM card; data logger function					✓
MM card					
USB data cable , data transfer instrument → PC, length approx. 2 m					✓
Interface Bluetooth Low Energy (BLE)					✓
Wi-Fi interface (instead of BLE)					●
Data exchange with gratis ecom® PC software MiniDV, DAS.NT.2, DAS 5.01					✓
Receiving capability for diagnostic data collected by ecom-AK (optional)					✓
CONNECTIONS					
Multi-function interface					✓
USB interface for data transfer					✓
MEASUREMENT GAS PREPARATION					
Extra-quick gas transport (quick availability of measurement data)					✓
High performing gas pump, brushless, low-maintenance					✓
Gas cooler with electronic monitoring and automatic condensation evacuation				10	✓
Soot filter for additional dust particle filtering					✓
POWER SUPPLY					
Mains power: 230 V / 50 Hz~; Lithium-Ion battery 7,2 V / 11,6 Ah					✓
Helix power cable					✓

* Measurement up to 10.000 ppm possible. However constant exposure impacts the sensor's lifespan.

ECOM-J2KNPRO ENGINE | ALTERNATIVE

As **7108007**, but with NO ExtraLow (0-300 ppm) and Low NO₂ (0-100 ppm) – instead of NO (0-5000 ppm) and NO₂ (0-1000 ppm)

Item no. **1018625**

GAS SENSORS | OPTIONS

SO₂ MEASUREMENT, 0-5000 PPM

(Item no. **101504**)

Mainly needed by measurement at oil engines.

SO₂ MEASUREMENT, 0-5000 PPM (LOW CO) ⁽¹⁾

(Item no. **108548**)

CxHv 0-4% VOL, CATALYTIC

(Item no. **101561**)

Mainly needed by measurement at wood carburetor engines.

BIOGAS ANALYSIS | OPTIONAL PACKAGE

See last page.

RADIO CONNECTION | ACCESSORY - OPTION

CONNECTION CABLE BASIC/CONTROL MODULE

- In case of slight disturbed radio transfer
- Length approx. 10 m



Item no. **55604**

RADIO TRANSFER AMPLIFICATION

Recommended by difficult or heavily disturbed radio transfer

- Optional foldable antenna at basic module, direct equipment



(Item no. **108207**)

DATA TRANSFER | OPTION

WI-FI OPTION, instead of Bluetooth Low Energy

(Item no. **108193**)

TRANSPORT | ACCESSORIES

UNDERCASE

Additional stowage for accessories/small parts

- Dimensions: approx. 510 x 130 x 250 mm (20 x 5.1 x 10 in.)
- Weight: approx. 1.6 kg (3.5 pd.)
- With fixation for trolley (item no. 101274)



Item no. **106720**

TROLLEY

For fixation at undercase

Item no. **101274**



POWER SUPPLY | OPTION

HELIX MAINS POWER CABLE (inst. straight style)

By longer distance sampling point to power source. Length 1,25 m – stretched approx. 5 m.

(Item no. **104461**)

SAMPLING SYSTEM | ALTERNATIVE

HIGH TEMPERATURE TIP Ø 10 MM

Application range up to 1100°C
With high temperature cone Ø 10 mm

LENGTH 750 MM Item no. **101183** ⁽¹⁾

LENGTH 1000 MM Item no. **30001303** ⁽¹⁾

LENGTH 1500 MM Item no. **101608** ⁽¹⁾

NO_x TUBING, 2-CHAMBER, WITH ODU PLUG

LENGTH 5,0 M Item no. **30002329** ⁽¹⁾

⁽¹⁾ Because of its length this item is not storable in the standard case. For transport purposes, it must be detached and stowed separately.



OPERATION SAFETY	
Heated gas channel plate for avoidance of moisture formation	✓
Internal air pressure sensor (range 300 to 1100 hPa)	✓
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)	✓
Flow meter for optical control of pump performance	✓
Electronic condensation monitoring	✓
Longlife sensors	✓
Separate LCD display for monitoring & indication of operation stands of several elements like pump, probe heating, radio transfer quality as well as display of error messages. Electronic flow meter and monitoring. Automatic instrument switch-off by decreasing & insufficient pump performance.	11 ✓
Toxic pollutants filter (NOx/SO ₂) for CO sensor	12 ✓
TRANSPORT	
Robust aluminium-framed transport case, XL size	13 ✓
Comfort shoulder carrying strap	✓
Connection pieces for easy docking of optional undercase	✓
Undercase	•
Trolley	•
DIMENSIONS WEIGHT OTHERS	
Dimensions (W x H x D): approx. 510 x 330 x 250 mm	
Weight: approx. 14 kg	
Calibration certificate, issued after instrument calibration into calibration chamber	✓
Tested and approved acc. to 1. BlmSchV (O ₂ /CO/Temp./Pressure) 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. basic model 7108007	

SAMPLING SYSTEM | ACCESSORIES

PROTECTION BAG

- For probe tips (all types) up to 750 mm
- Material: fabrics
 - Dimensions: approx. 86 x 7.5 x 3 cm
 - Weight: approx. 350 g



Item no. 55991

Alternatively, for probe tips up to 1000 mm:

- Dimensions: approx. 102 x 7.5 x 3 cm
- Weight: approx. 570 g

Item no. 108236

CONSUMABLES | FOR STOCK

Fine dust filter (pack of 10 pcs)	Item no. 100568
Thermal printer paper roll	Item no. 50513
Soot filter paper (pack of 200 pcs)	Item no. 50515
Soot filter	Item no. 50508
NOx/SO ₂ filter, large	Item no. 52169





ECOMMANDER APP

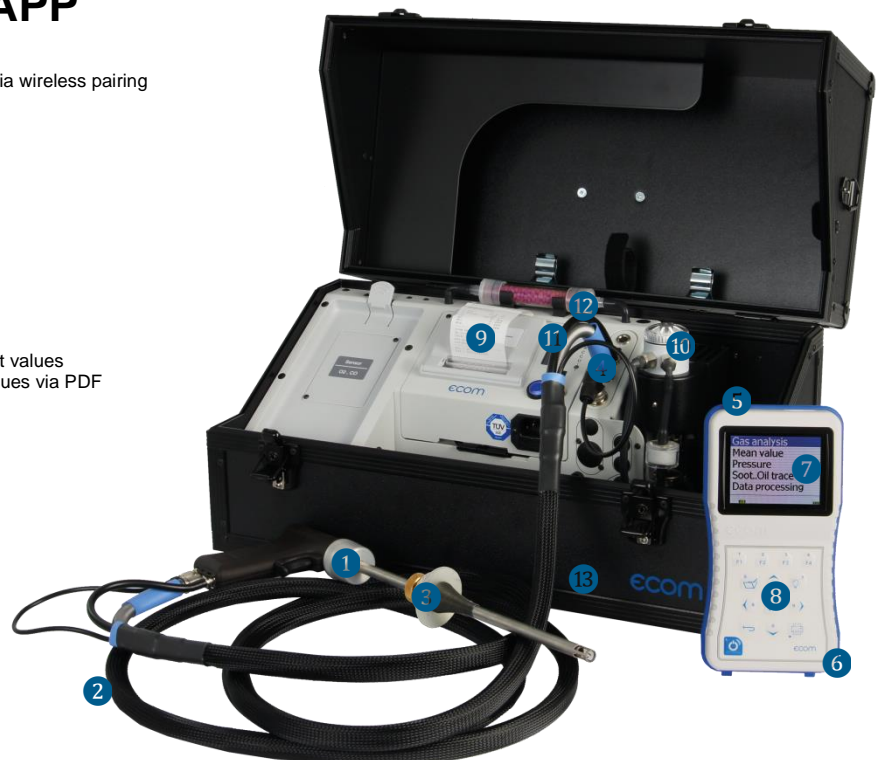
- SIMPLE CONNECTION**

 - 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  



FLUE GAS ANALYSIS

COGENERATION (COMBINED HEAT & POWER) **ECOM-J2KNpro ENGINE**



ecom[®]

MEASUREMENT OF BIOGAS | APPLICATION FIELD

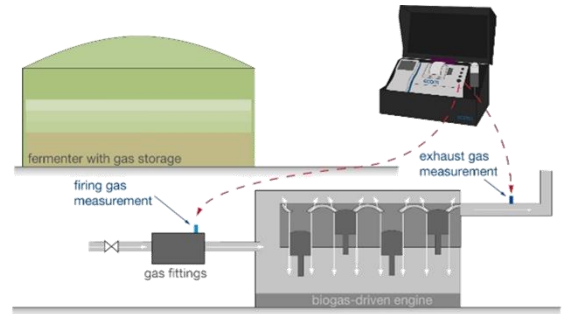
COMPLETE MEASURING PACKAGE CONSISTING OF:

- H₂S sensor, electrochemical, measuring range 0-5000 ppm
- CH₄ sensor, infrared, measuring range 0-100%
- Viton sampling tubing, length approx. 3 m (10 ft.)

Item no. 106755|106756

COMPONENTS OTHERWISE AVAILABLE SEPARATELY:

- H₂S sensor, 0-5000 ppm **Item no. 108091**
- CH₄ sensor, 0-100% **Item No. 107342**
- Viton tubing, approx. 3 m **Item no. 106756**



8 REASONS FOR A HEATING PROFESSIONAL TO PERFORM THE DAILY WORK WITH AN ECOM ANALYSER:

- 1 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.
- 2 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.
- 3 BROAD REACH - WIRELESS COMMUNICATION.**
Product fitted with radio module or Bluetooth Low Energy for wireless, unerring data transfer.
- 4 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.
- 5 STABLE - SHOCK-PROOF.**
Increased protection for safe transport / unintentional fall. All-round protection provided by robust transport case resp. protective housing.
- 6 COOL - DRIED SAMPLED GAS & 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.
- 7 LOSS-FREE – SWIFT GAS TRANSPORT, NO 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.
- 8 COMPLETE - ALL INCLUSIVE – PRODUCT READY-TO-MEASURE.**
The product is completely ready to measure and doesn't require any further components to be operated. Respectively a kit of essential consumables is covered in the delivery package, thus avoiding having to quit a measurement process due to 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; 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.

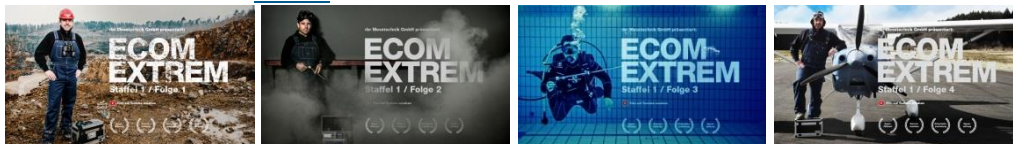


OIL & GAS
Raw material production
Transport
Processing



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

THE SHORT VIDEOS ON OUR [YouTube](#) CHANNEL OUTLINE IN ENTERTAINING MANNER THE UNIQUE SELLING POINTS OF



THE PORTABLE ECOM[®] FLUE GAS ANALYSERS – SIMPLY VIEW THEM WHILE CLICKING ON THE ABOVE LINK!

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