



**ECOM-J2KNpro EASY**

- COMPACT ANALYSER FOR THE CONTROL AND ADJUSTMENT OF MIDDLE- & LARGE-SIZED COMBUSTION PLANTS
- DETACHABLE RADIO REMOTE CONTROLLER UNIT WITH COLOUR DISPLAY
- BASIC VERSION WITH O<sub>2</sub> AND CO LONGLIFE SENSORS – FURTHER GAS SENSORS POSSIBLE
- CO SENSOR OVERLOAD PROTECTION & FRESH AIR PURGE WITHOUT MEASUREMENT INTERRUPTION
- INTEGRAL SOOT MEASUREMENT
- ERGONOMIC GAS SAMPLING PROBE Ø 10 MM, LENGTH 300 MM WITH 3-CHAMBER TUBING 3 M
- BRUSHLESS, LOW MAINTENANCE, HIGH-PERFORMING GAS PUMP FOR QUICK GAS CONVEYANCE.
- CONDENSATE TRAP WITH ELECTRONIC LEVEL MONITORING - GAS COOLER OPTIONAL
- THERMAL QUICK-PRINTER 58 MM
- BACKLIT DISPLAY & KEYPAD
- HIGH-VALUE T-GAS PLUG
- BLUETOOTH LOW ENERGY (BLE)
- LITHIUM-ION BATTERY
- ROBUST AND ULTRA-LIGHT ALUMINIUM HOUSING
- ROBUST TRANSPORT CASE





TECHNICAL DATA & FEATURES BASIC MODEL				✓ = Standard	● = Option
MEASUREMENT	RANGE	RESOLUTION	ACCURACY		
Maximal amount of gas sensors			*= Higher value prevails	6	
O <sub>2</sub>	0...21 %	0,01 vol.%	± 0,3 vol. %	✓	
CO ppm (H <sub>2</sub> -comp.)	0...4000 ppm	1 ppm	± 20 ppm / 5% of measured value*	✓	
CO ppm (H <sub>2</sub> -comp.)	0...10.000 ppm	1 ppm	± 20 ppm / 5% of measured value*	●	
CO ppm (n. H <sub>2</sub> -comp.)	0...20.000 ppm	1 ppm	± 40 ppm / 10% of measured value*	●	
CO %	0...63.000 ppm	5 ppm	± 100 ppm / 10% of measured value*	●	
NO	0...5000 ppm	1 ppm	± 5 ppm / 5% of measured value*	●	
NO ExtraLow	0...300 ppm	0,1 ppm	± 2 ppm / 5% of measured value*	●	
NO <sub>2</sub>	0...1000 ppm	1 ppm	± 5 ppm / 5% of measured value* <sup>(1)</sup>	●	
NO <sub>2</sub> Low	0...100 ppm	0,1 ppm	± 5 ppm / 5% of measured value* <sup>(1)</sup>	●	
SO <sub>2</sub>	0...5000 ppm	1 ppm	± 5 ppm / 5% of measured value* <sup>(1)</sup>	●	
SO <sub>2</sub> (Low CO)	0...5000 ppm	1 ppm	± 5 ppm / 5% of measured value* <sup>(1)</sup>	●	
SO <sub>2</sub> Low	0...100 ppm	0,1 ppm	± 5 ppm / 5% of measured value* <sup>(1)</sup>	●	
H <sub>2</sub>	0...2000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	●	
H <sub>2</sub>	0...20.000 ppm	1 ppm	± 100 ppm or 5 % of measured value*	●	
H <sub>2</sub> S ppm	0...1000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	●	
CxHx (catalytic)	0...4 %	0,01 vol.%		●	
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 (integral)	0...9			✓	
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>		✓	
NOx via NO measured (estimated NOx value) <sup>(2)</sup>		= 1.05 NO		●	
GAS SAMPLING   GAS TEMPERATURE MEASUREMENT					
Sampling probe (SB), heated 300 mm (1 ft.), Ø 10 mm, with thermocouple				1	✓
3-chamber sampling tubing 3 m (10 ft.)				2	✓
NOx tubing with Teflon sleeve					●
Fixation cone with Teflon protective ring and stainless steel tip				3	✓
High-value T-Gas plug					✓
COMBUSTION AIR SENSOR					
T-Room sensor (PT 2000) L = 10 cm (3.9 in.), cable ca. 3 m (10 ft.), magnet fixation & cone					✓
DATA INDICATION / INPUT					
Detachable monitoring/controlling module Frequency 868 MHz, coverage by free sight approx. 70 m (70 yds.) With magnet on the back for positioning at metal surfaces				4	✓
LCD colour display 78 x 58 cm, 320 x 240 dots, backlit, graphic-/zoom-capable				5	✓
Keypad with alphanumerical input function				6	✓
DATA PRINTOUT					
Integral thermal quick-printer, paper width 58 mm (2.2 in.)				7	✓
Matrix printer 58 mm (2.2 in.) - instead of thermal printer					●
Address on protocol changeable by user (via keypad)					✓
DATA PROCESSING					
Slot for MM card; data logger function					✓
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					✓

ECOM-J2KNpro EASY | ALTERNATIVE

ecom-J2KNpro Easy, as 108001, but with GAS COOLER and automatic condensation evacuation, instead of condensation trap  
**Item no. 108002**

ecom-J2KNpro Easy, as 108001, but with MATRIX PRINTER – INSTEAD OF THERMAL PRINTER  
**Item no. 108003**

ecom-J2KNpro Easy, as 108001, but with MATRIX PRINTER and GAS COOLER  
**Item no. 108004**

GAS SENSORS | OPTIONS

NO MEASUREMENT, 0-5000 PPM  
**(Item no. 101500)**

NO MEASUREMENT, EXTRALOW 0-300 PPM  
**(Item no. 108505)**

NO<sub>2</sub> MEASUREMENT, 0-1000 PPM <sup>(1)</sup>  
**(Item no. 101502)**

NO<sub>2</sub> MEASUREMENT, LOW 0-100 PPM <sup>(1)</sup>  
**(Item no. 101503)**

SO<sub>2</sub> MEASUREMENT, 0-5000 PPM <sup>(1)</sup>  
**(Item no. 101504)**

SO<sub>2</sub> MEASUREMENT, 0-5000 PPM (LOW CO) <sup>(1)</sup>  
**(Item no. 108548)**

SO<sub>2</sub> MEASUREMENT, LOW 0-100 PPM <sup>(1)</sup>  
**(Item no. 107051)**

CO% MEASUREMENT, 0-63.000 PPM <sup>(2)</sup>  
**(Item no. 101505)**

CO 0-20.000 PPM (NON H<sub>2</sub>-COMP.), instead of H<sub>2</sub>-compensated  
**(Item no. 108313)**

CxHy 0-4% VOL, CATALYTIC  
**(Item no. 101561)**

H<sub>2</sub> MEASUREMENT 0-2000 PPM (VIA CO SENSOR)  
**(Item no. 101655)**

H<sub>2</sub> MEASUREMENT 0-20.000 PPM  
**(Item no. 107433)** – in case H<sub>2</sub>S also ordered.  
**(Item no. 107434)**

H<sub>2</sub>S MEASUREMENT 0-1000 PPM (CH<sub>4</sub> FILTER)  
**(Item no. 103401)**

<sup>(1)</sup> Gas cooler and NOx tubing recommended  
<sup>(2)</sup> Additional filtering recommended

GAS COOLER | OPTION

GAS COOLER with automatic condensation evacuation, instead of condensation trap  
**(Item no. 108132)**

<sup>(1)</sup> Guaranteed by use of NOx sampling tubing. | <sup>(2)</sup> When only NO; by NO+NO<sub>2</sub> = NOx measurement.



MEASUREMENT GAS PREPARATION	
Extra-quick gas transport (quick availability of measurement data)	✓
High-performing gas pump, brushless, low-maintenance	✓
Condensation trap with electronic monitoring and integral particle filter	8 ✓
Gas cooler with electronic monitoring and automatic condensation evacuation	•
POWER SUPPLY	
Mains power operation: power pack 230 V / 50 Hz-; Lithium-ion battery 7,2 V / 11,6 Ah	✓
Mains power cord length approx. 2.3 m (7.5 ft.)	✓
Helix mains power cord (instead of straight style)	•
Lithium-ion battery 7,2 V / 9 Ah with long-operation time	✓
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.	9 ✓
Toxic pollutants filter (NOx/SO <sub>2</sub> ) for CO sensor	10 ✓
TRANSPORT	
Robust aluminium-framed transport case	11 ✓
Comfort shoulder carrying strap	✓
Connection pieces for easy docking of optional undercase	✓
Undercase	•
Alternative case size	•
DIMENSIONS   WEIGHT   OTHERS	
Dimensions (W x H x D): approx. 440 x 315 x 250 mm (17.3 x 12.4 x 9.8 in.)	
Weight: approx. 12 kg (26.4 pd.)	
Calibration certificate, issued after instrument calibration into calibration chamber	✓
Tested and approved acc. to 1. BlmSchV (O <sub>2</sub> /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	
<b>Item no. basic model 107660</b>	

**PRINTER | OPTION**

MATRIX PRINTER (instead of thermal printer)  
For a long-lasting and non-fading documentation of the measurement values  
**(Item no. 108172)**

**RADIO CONNECTION | ACCESSORY & OPTION**

**CONNECTION CABLE BASIC/CONTROL MODULE**  
• In case of slight disturbed radio transfer  
• Length approx. 10 m (30 ft.)  
**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)**



**POWER SUPPLY | OPTION**

**HELIX MAINS POWER CABLE** (inst. straight style)  
By longer distance between measurement point and power source  
**(Item no. 104461)**

**CONSUMABLES | FOR STOCK**

Fine dust filter (pack of 10 pcs)	<b>Item no. 100568</b>
Thermal printer paper roll	<b>Item no. 50513</b>
Matrix printer paper roll	<b>Item no. 51596</b>
Soot filter paper (pack of 200 pcs)	<b>Item no. 50515</b>
Soot filter	<b>Item no. 50508</b>
NOx/SO <sub>2</sub> filter, large	<b>Item no. 52169</b>





**SAMPLING SYSTEM | ALTERNATIVE**

**GRIP, PROBE TIP SB Ø 10 MM, CONE**

LENGTH 350 MM (1.15 FT.)	Item no. 107513 <sup>(1)</sup>
LENGTH 500 MM (1.6 FT.)	Item no. 107515 <sup>(1)</sup>
LENGTH 700 MM (2.3 FT.)	Item no. 107516 <sup>(1)</sup>
LENGTH 1000 MM (3.2 FT.)	Item no. 107517 <sup>(1)</sup>
LENGTH 1500 MM (4.9 FT.)	Item no. 107518 <sup>(1)</sup>



**HIGH-TEMPERATURE PROBE TIP Ø 10 MM**

LENGTH 750 MM (2.4 FT.)	Item no. 101183 <sup>(1)</sup>
LENGTH 1000 MM (3.2 FT.)	Item no. 30001303 <sup>(1)</sup>
LENGTH 1500 MM (4.9 FT.)	Item no. 101608 <sup>(1)</sup>

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

**3-CHAMBER TUBING WITH ODU PLUG**

LENGTH 5,0 M (16.4 FT.)	Item no. 106914 <sup>(1)</sup>
LENGTH 10,0 M (32.8 FT.)	Item no. 106915 <sup>(1)</sup>



**NO<sub>x</sub> TUBING, 3-CHAMBER, WITH ODU PLUG <sup>(1)</sup>**

LENGTH 3,5 M (11.5 FT.)	Item no. 106931 <sup>(1)</sup>
LENGTH 5,0 M (16.4 FT.)	Item no. 106932 <sup>(1)</sup>
LENGTH 10,0 M (16.4 FT.)	Item no. 107362 <sup>(1)</sup>



**SAMPLING SYSTEM | ACCESSORIES**

**PROTECTION BAG**

For probe tips (all types) up to 750 mm (2.4 ft.)

- Material: fabrics
- Dimensions: approx. 86 x 7.5 x 3 cm (33.8 x 2.9 x 1.1 in.)
- Weight: approx. 350 g (12.3 oz.)

Item no. 55991

OR ALTERNATIVELY:

For probe tips (all types) up to 1000 mm (3 ft.)

- Material: fabrics
- Dimensions: approx. 102 x 7.5 x 3 cm (39.7 x 2.9 x 1.1 in.)
- Weight: approx. 570 g (19.95 oz.)

Item no. 108236



**FLEXIBLE PROBE TIP Ø 8 MM**

For measurements at hardly accessible measurement openings

- With fixation cone, special version
- Flexible tubing
- Thermocouple
- Tip screwable on probe grip SB/SU style
- Length 400 mm

Item no. 102353 <sup>(1)</sup>



**HEAT PROTECTION SHIELD**

- For probe tips SB/SU Ø 10 mm
- Material: AlMg<sup>3</sup>. Hole Ø 10 mm, with knurled screw
- Dimensions: approx. 195 x 120 x 1.5 mm (7.6 x 4.7 x 0.05 in.)
- Weight: approx. 90 g (3.1 oz.)

Item no. 101527



**DATA RECORDING / DATA TRANSFER**

**MM CARD 2 GB**

Item no. 102469



**DATA CABLE USB, ANALYSER -> PC**

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

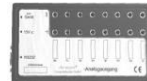
Item no. 55818

**WI-FI OPTION**, instead of Bluetooth Lo Energy  
(Item no. 108193)

**8-CHANNEL ANALOG OUTPUT BOX (V / mA)**

Connection box for external logging/recording units

- Dim.: approx. 165 x 85 x 30 mm (L x W x H)
- Weight: approx. 0.3 kg
- Incl. charger, cable to analyser, RS 232 cable, software



Item no. 101769

**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 (3.9 in.)
- Cable length: 3 m (10 ft.)



Item no. 12019

**CONTACT SENSOR T-GAS (NI/CRNI)**

- Range: -20 to 100°C
- Resolution: 0,1°C
- Measurement uncertainty: ± 1°C
- Suitable for pipe Ø up to 100 mm (3.9 in.)
- Cable length: 3 m (10 ft.)



Item no. 106982

**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. 108202)

**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



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

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

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



**TRANSPORT | ACCESSORIES & ALTERNATIVES**

**UNDERCASE**

Additional stowage for accessories/small parts

- Dimensions: approx. 440 x 100 x 250 mm (17.3 x 3.9 x 10 in.)
- Weight: approx. 1.0 kg (2.2 pd.)
- With fixation for trolley (item no. 101274)



**Item no. 106720**

**TRANSPORT CASE, LARGER VERSION (TYPE EXPERT, IN, INS)**

- Instead of standard case
- Dim. (W x D x H): approx. 510 x 250 x 330 mm (20 x 9.8 x 12.9 in.)
- Weight: empty, approx. 4.0 kg (8.8 pd.)

**(Item no. 108802)**

**UNDERCASE FOR TRANSPORT CASE TYPE EXPERT, IN, INS**

Additional stowage for accessories/small parts

- Dim. (W x D x H): approx. 510 x 250 x 130 mm (20 x 9.8 x 5.1 in.)
- Weight: approx. 1.6 kg (3.5 pd.)
- With fixation for trolley (item no. 101274)



**Item no. 106721**

**TROLLEY**

For fixation at undercases of the J2KNpro range

**Item no. 101274**



**INDOOR CASE**

Enables the instrument operation also by closed lid (max. 1 hour; surrounding temperature max. 45°C).

- With swivelling carrying bow
- Without counter-parts for undercase fixation
- Lateral opening with pivoting flap for dust protection when instrument at rest
- Opening suitable for 3-chamber or NOx tubing

**Not suitable for outdoor applications.**





**(Item no. 108803)**



**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  





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 with radio module or Bluetooth Low Energy 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<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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