



*New version 2018!*



**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
- NEW** ■ **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
- NEW** ■ **HIGH-VALUE** T-GAS PLUG
- BLUETOOTH LOW ENERGY (BLE) OR WIFI MODULE OPTIONAL
- NEW** ■ **LITHIUM-ION** BATTERY
- ROBUST AND ULTRA-LIGHT ALUMINIUM HOUSING
- ROBUST TRANSPORT CASE



MEASUREMENT	RANGE	RESOLUTION	ACCURACY	
Maximal amount of gas sensors			*= Higher value prevails	6
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 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 Low	0...500 ppm	0,1 ppm	± 5 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	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>		✓
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 Classic				•
Interface Bluetooth Low Energy (BLE)				•
Interface Wi-Fi				•
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				✓
Analog outputs				•
MEASUREMENT GAS PREPARATION				
Extra-quick gas transport (quick availability of measurement data)				✓

✓ = Standard  
• = Option



**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, LOW 0-500 PPM

**(Item no. 101501)**

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, 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)**

C<sub>x</sub>H<sub>y</sub> 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.



MEASUREMENT GAS PREPARATION	
High-performing gas pump, <b>brushless, low-maintenance</b>	✓
Condensation trap with electronic monitoring and integral particle filter <b>8</b>	✓
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)	•
<b>Lithium-ion battery</b> 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.	<b>9</b> ✓
Toxic pollutants filter (NOx/SO <sub>2</sub> ) for CO sensor <b>10</b>	✓
TRANSPORT	
Robust aluminium-framed transport case <b>11</b>	✓
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	✓
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. 108001



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



**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

**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

**RADIO INTERFACE BOX**

For online transfer, with USB connection (PC-side).  
Not suitable for DAS 5 program



Item no. 1050060

**BLUETOOTH OPTION LOW ENERGY (BLE) Transfer / Recording of measurement values**

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

(Item no. 108192)

**WI-FI OPTION V1, Direct equipment**

For use of APP "Remote display"  
Remark: Option cannot be installed simultaneously to Bluetooth option.

(Item no. 108193)

**APP "REMOTE DISPLAY" FOR ECOM ANALYSERS**

- currently available in Chinese, Danish, Dutch, English, French, German and Swedish -



<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)**



**OUTDOOR TRANSPORT CASE SET \***

Special version for outdoor applications (IP 43)

Enables the instrument operation also by closed lid.

- With lateral out-leading for 3-chamber or NO<sub>x</sub> tubing
- Dim. Case (W x D x H): approx. 510 x 250 x 310 mm (20 x 9.8 x 12.2 in.)
- Weight main case: approx. 4.5 kg (9.9 pd.) - empty
- Dim. subcase (W x D x H): ca. 510 x 250 x 130 mm (20 x 9.8 x 5.1 in.)
- Weight subcase : approx. 1.0 kg (2.2 pd.) - empty
- Trolley: approx. 1.0 kg (2.2 pd.)
- Dimensions complete: approx. 510 x 250 x 520 mm (20 x 9.8 x 20.4 in.)
- Weight: approx. 6.5 kg (13.3 pd.) - empty

**(Item no. 108804)**



\* Sell-out item – Available as long as stock lasts!

**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**



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<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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