

TECHNICAL DATA SHEET

ecom-J2KN_{pro} ^{Engine} MOBILE FLUE GAS ANALYSIS

The professional measurement package for powerful engines and large combustion systems

The ecom-J2KN_{pro} ^{Engine} is an innovative, high-quality flue gas analyser that has been specially developed for use on stationary and mobile combustion engines. It combines a robust design with precise sensor technology and therefore meets the highest requirements in engine measurement technology - even under the toughest operating conditions.

Whether for emission measurement on combined heat and power plants, gas engines, emergency power generators or industrial engines - it delivers reliable measurement results for the optimization of combustion processes, for the documentation of legal limit values or for efficient servicing.

Technical data

Measured values	Range	Resolution	Accuracy *= Higher value prevails		
✓ =Standard; ● = Optional EC; ● = Optional NDIR; ● = Optional Pellistor					
Maximum number of measurable gas components				6	
O ₂	0...21 %	0,1 vol. %	± 0,3 vol. %	✓	
CO (H ₂ -comp.)	0...2.500 ppm (10.000 ppm)	1 ppm	± 20 ppm / 5 % of measured value*	✓	
CO (n. H ₂ -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*	•	
CO ₂	0...100 vol. %	0,01 vol. %	up to 5 % of the measuring range end value	•	
NO	0...5.000 ppm	1 ppm	± 5 ppm / 5 % of measured value*	✓	
NO _{ExtraLow}	0...300 ppm	0,1 ppm	± 2 ppm / 5 % of measured value*	•	
NO ₂	0...1.000 ppm	1 ppm	± 5 ppm / 5 % of measured value*	✓	
NO _{2 Low}	0...100 ppm	0,1 ppm	± 5 ppm / 5 % of measured value*	•	
SO ₂	0...5.000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	•	
SO _{2 Low CO}	0...5.000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	•	
SO _{2 Low}	0...100 ppm	0,1 ppm	± 5 ppm / 5 % of measured value*	•	
H ₂	0...2.000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	•	
H ₂	0...20.000 ppm	1 ppm	± 100 ppm / 5 % of measured value*	•	
H ₂ S	0...1.000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	•	
CH ₄	0...5 vol. %	0,01 vol. %	± 0,2 vol. % / 5 % of measured value*	•	
CH ₄	0...100 vol. %	0,1 vol. %	± 5 % of the measuring range end value	•	
C _x H _y	0...4 vol. %	0,01 vol. %		•	
Other measured variables	Range	Resolution	Accuracy *= Higher value prevails		
T-Gas	0...500 °C	1 °C	± 2 °C / 1,5 % of measured value*	✓	
	0...1.100 °C	1 °C	± 2 °C / 1,5 % of measured value*	•	
T-Air	0...99 °C	0,1 °C	± 1 °C	✓	
Pressure ΔP	± 100 hPa	0,01 hPa	± 0,5 hPa / 1 % of measured value*	✓	
Calculation values		Range			
CO ₂		0...CO _{2 max}			✓
Combustion efficiency (ETA)		0...120 %			✓
Excess air (Lambda)		>1			✓
Losses qA		0...100 %			✓
CO _(U) undiluted		x ppm			✓
Dew point		x° C			✓
mg/m³		x mg/m³			✓
mg/kWh		x mg/kWh			✓
O ₂ reference		x % O ₂			✓



Dimensions: approx. 510 x 330 x 250 mm (W x H x D)
Weight: approx. 14 kg with sampling system

Equipment

Gas sampling	
Unheated probe 350 mm, Ø 8 mm	✓
Fixing cone with mini heat protection shield	✓
2-chamber NO _x tubing with PTFE inner coating 3.5 m	✓
High temperature probe	•
Measurement gas preparation	
Electronic condensate monitoring	✓
Automatic condensation evacuation	✓
Electronic sample gas cooler	✓
Combustion air temperature measurement	
T-room stick	✓
Operation safety	
Pressure-equalizing gas duct plate	✓
Heated gas duct plate	✓
Temperature display for stream core search	✓
Internal air pressure sensor	✓
Automatic self-test in the calibration phase	✓
CO switch-off by concentration overload	✓
Fresh air purge by CO exceeding	✓
Fresh air purge after measuring operation	✓
Flow meter for pump performance check	✓
Pollutant filter for CO sensor	✓
Data processing	
Integrated high-speed thermal printer	✓
External memory via SD card	✓
Wireless data interface (BLE)	✓
WiFi interface (instead of BLE)	•
Serial interface	✓
USB interface	✓
Data display / input	
TFT colour display, backlit, zoomable	✓
Backlit keyboard	✓
Removable control unit with magnets on the back	✓
Transport	
Aluminium-framed case with carrying strap	✓
Undercase	•
Proof of conformity / calibration	
EN 50379-2	✓
1. BlmSchV	✓
Certificate after climate chamber calibration	✓

