TECHNICAL DATA SHEET

ecom-J2KNpro
MOBILE FLUE GAS ANALYSIS

The compact measuring device with radio remote control for medium- and large-sized combustion systems

Thanks to its detachable wireless remote control and colour display, the device enables precise measurements even over long distances. The basic version is equipped with longlife O and CO sensors and can be expanded if required. The CO sensor has overload protection and a fresh air purge for uninterrupted measurements.

The device also has an integrated soot pump, a heated gas sampling probe and a low-maintenance high-performance gas pump for fast gas transportation. An integrated thermal printer, BLE and a robust, ultra-light aluminum housing complete the package.



Dimensions: ca. 440 x 315 x 250 mm (W x H x D)
Weight: approx. 12 kg with sampling system

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_2S	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_xH_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 | △P	± 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	√

Equipment

Gas sampling	
Heated probe 300 mm, Ø 10 mm with fixing cone	√
3-chamber tubing 3 m	√
3-chamber NO_x tubing with PTFE inner coating	•
High temperature probe	•
Measurement gas preparation	
Electronic condensate monitoring	√
Automatic condensation evacuation	√
Electronic sample gas cooler	•
Combustion air temperature measurement	
T-room sensor with cable, cone and magnet	√
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 proccessing	
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 color 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. BImSchV	√
Certificate after climate chamber calibration	√

As of 06/25, design and technical changes as well as possible printing errors are subject to change.

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Measurement Technology