

# TECHNICAL DATA SHEET

## ecom-EN3 MOBILE FLUE GAS ANALYSIS

Ideal for inspection and adjustment work on heating systems in the lower to medium performance range

The smart all-in-one solution for flue gas analysis on oil and gas burner. Despite its compact design, it is packed with professional measurement technology - developed for daily use in the trade, for service calls or for documenting emission values. The robust housing protects a powerful sensor system, supplemented by integrated gas conditioning and simple operation via color display or app.

Whether for quick routine tests or precise emission measurements: The ecom-EN3 stands for maximum reliability, short measurement cycles and practical features - made in Germany and ready for any challenge.

### 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 <sub>2</sub>	0...21 %	0,1 vol. %	± 0,3 vol. %	✓
CO (H <sub>2</sub> -comp.)	0...2.500 ppm (10.000 ppm)	1 ppm	± 20 ppm / 5 % of measured value*	✓
CO (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*	•
CO <sub>2</sub>	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 <sub>ExtraLow</sub>	0...300 ppm	0,1 ppm	± 2 ppm / 5 % of measured value*	•
NO <sub>2</sub>	0...1.000 ppm	1 ppm	± 5 ppm / 5 % of measured value*	•
NO <sub>2 Low</sub>	0...100 ppm	0,1 ppm	± 5 ppm / 5 % of measured value*	•
SO <sub>2</sub>	0...5.000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	•
SO <sub>2 Low CO</sub>	0...5.000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	•
SO <sub>2 Low</sub>	0...100 ppm	0,1 ppm	± 5 ppm / 5 % of measured value*	•
H <sub>2</sub>	0...2.000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	•
H <sub>2</sub>	0...20.000 ppm	1 ppm	± 100 ppm / 5 % of measured value*	•
H <sub>2</sub> S	0...1.000 ppm	1 ppm	± 10 ppm / 5 % of measured value*	•
CH <sub>4</sub>	0...5 vol. %	0,01 vol. %	± 0,2 vol. % / 5 % of measured value*	•
CH <sub>4</sub>	0...100 vol. %	0,1 vol. %	± 5 % of the measuring range end value	•
C <sub>x</sub> H <sub>y</sub>	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*	✓
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 <sub>2</sub>	0...CO <sub>2 max</sub>			✓
Combustion efficiency (ETA)	0...120 %			✓
Excess air (Lambda)	>1			✓
Losses qA	0...100 %			✓
CO <sub>(U)</sub> undiluted	x ppm			✓
Dew point	x °C			✓
mg/m³	x mg/m³			✓
mg/kWh	x mg/kWh			✓
O <sub>2</sub> reference	x % O <sub>2</sub>			✓



Dimensions: approx. 400 x 275 x 205 mm (W x H x D)  
Weight: approx. 7 kg with sampling system

### Equipment

Gas sampling	
Unheated probe 220 mm, Ø 8 mm	✓
3-chamber sampling tubing 3 m	✓
3-chamber NO <sub>x</sub> tubing with PTFE inner coating	•
Unheated probes Ø 10 mm in alternative lengths	•
Measurement gas preparation	
Electronic condensate monitoring	✓
Electronic sample gas cooler	•
Combustion air temperature measurement	
T-room sensor with cable, cone and magnet	✓
Operation safety	
Pressure-equalizing gas duct plate	✓
Temperature display for stream core search	✓
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) for connection with mobile devices	✓
WiFi interface (instead of BLE)	•
Serial interface	✓
USB interface	✓
Data display / input	
TFT color display, backlit, zoomable	✓
Backlit keyboard	✓
Transport	
Aluminium framed case with carrying strap	✓
Undercase	•
Proof of conformity / calibration	
EN 50379-2	✓
1. BlmSchV	✓
Certificate after climate chamber calibration	✓

