TECHNICAL DATA SHEET

ecom-D *Expert*

COMPACT FLUE GAS ANALYSIS

Compact design, easy handling - perfect for control measurements in industrial environments

The ecom-D *Expert* is a versatile flue gas analyser for industrial use - ideal for inspection and adjustment work on oil and gas firing systems and process plants. With sensors for O_2, CO, NO and NO_2 as well as optional additional sensors, it offers precise measured values even for more complex requirements.

Well thought-out for everyday work: At choice it remains positioned in its protective transport case for operation - or it is detached from and it is a handheld. Which - by need and thanks to its rear magnets - becomes even a handfree instrument.

Dimensions: approx. 515 x 325 x 175 mm (W x H x D)
Gewicht: ca. 8 kg mit Probenahmesystem

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	0,1 °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	
Unheated probe 300 mm, Ø 10 mm	√
3-chamber NO_x sampling tubing with PTFE inner coating, 3.5 m	√
Unheated probes Ø 10 mm in alternative lengths	·
High temperature probe Ø 10 mm	·
Measurement gas preparation	
Electronic condensate monitoring	√
Electronic mini 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	√
Data processing	
IR interface for optional printer	√
Integrated high-speed thermal printer	·
Infrared 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	
LCD display, backlit, zoomable	√
Backlit keyboard	√
Transport	
Hard-shell transport case	√
Proof of conformity / calibration	
EN 50379-2	√
1. BImSchV	√
Certificate after climate chamber calibration	√

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