



O₂ | CO | NO

DELTAsmart

Handheld unit for modern flue gas analysis.



For control measurements at gas-, oil- and wood-firings.



DELTAsmart

Robust and easy to operate

DELTAsmart enables you to measure flue gas, pressure and temperature in one device. It is ideally suited for all control and adjustment work at gas, oil-fired, condensing and wood-burning boilers.

These are your special advantages:

- Simultaneous measurement of O₂, CO and NO (3rd sensor optional)
- Flue gas, temperature and differential pressure measurement
- Intuitive menu navigation via touch display
- Glass fibre reinforced housing with holding magnets
- Large data memory with interface to App and PC software
- Powerful Lithium-Ion battery for min. 15 h continuous operation
- IR printer interface



The device in detail

An overview of the special features



Operation and colour display

Intuitive guidance through the measuring programs, due to easy display- and keypad-interaction



Condensate and dirt are kept out

Large-volume condensate separator with proven star filter including water stop function



Hands free through magnetic force

Thanks to four strong magnets on the back, the hand-held device adheres firmly and securely to metallic surfaces



Store, transfer and print measurement data

Micro-SD, Mini-USB and Bluetooth for data transfer to Smartphone, Tablet or PC – or infrared speed printer



Easy to clean and reliable

4 years warranty without maintenance obligation by using long-life sensors



Practical accessories

Optionally: transport case, MRU speed printer, probe with 180 mm exchangeable probe tube and 3rd sensor for NO measurement

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Technical data



Measured values	Measuring range	Resolution	Accuracy
Oxygen (O ₂)	0 ... 21.0 Vol.-% absolute	0.1 %	± 0.2 Vol.-% absolute
Carbon monoxide (CO) (H ₂ compensated)	0 ... 4,000 ppm, overload up to 10,000 ppm*	1 ppm	± 10 ppm or 5 % of reading** < 4,000 ppm, 10% of reading > 4,000 ppm
Carbon monoxide (CO)	0 ... 10,000 ppm, overload up to 20,000 ppm*	1 ppm	± 20 ppm or 5 % of reading** < 4,000 ppm, 10% of reading > 4,000 ppm
Nitric monoxide (NO)	0 ... 5,000 ppm, overload up to 10,000 ppm*	1 ppm	± 5 ppm or 5 % of reading** < 5,000 ppm, 10% of reading > 5,000 ppm
Flue gas temperature	-40 ... +1,200 °C	0.1 °C	± 2 °C ... < 200 °C, 1 % of reading** > 200 °C
Differential temperature	-40 ... +1,200 °C	0.1 °C	± 2 °C or 0.5 %
Combustion air temperature	0 ... +100 °C	0.1 °C	± 2 °C
Chimney draft	± 200 hPa (mbar)	0.01 hPa	± 0.02 hPa (mbar) or 1 %
Differential pressure	± 200 hPa (mbar)	0.01 hPa	± 0.02 hPa (mbar) or 1 %
Combustion calculations	CO ₂ , excess air, efficiency, dew point, CO ambient air measurement, leak test		

Calculated values	Measuring range (fuel dependent)	Resolution	Accuracy
Fuels	natural gas, light oil EL, liquid gas, pellets and many more		
Carbon dioxide (CO ₂)	0 ... CO ₂ max.	0.1 %	± 0.3 Vol.-% absolute
Dew point	°C	0.1 °C	
Flue gas loss (qA)	0 ... 99.9%	0.1 %	
Efficiency	0 ... 120%	0.1 %	
Excess air	0 ... 999%		

General technical data	
Operating conditions	+5 ... +45 °C; RH up to 95 % non condensing
Storage conditions	-20 ... +50 °C
Data storage	1,000 measurements, 1,000 sites
Interface	Mini-USB, Micro-SD, IRDA, Bluetooth (data transfer to Smartphone, Tablet or PC)
Internal power supply	Li-Ion, 2,250 mAh, 8 Wh
Mains power supply	Power supply unit 100 ... 240 Vac, 50 ... 60 Hz, 5 V DC, 500 mA
Protection class	IP30
Approvals	TÜV-certified according to 1. BImSchV and EN 50379-1 and 2 (Version B) or EN 50379-3 (Version E), ByRgG 309
Dimensions (W x H x D)	82 x 169 x 44 mm
Weight	approx. 400 g (without probe)

MRU – Competence in gas analysis. For over 35 years.



MRU · Messgeraete fuer Rauchgase und Umweltschutz GmbH

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