



Dräger EM200plus Multi-channel analyser for measuring ex-

The Dräger EM200plus-f and Dräger EM200plus-i are suitable for measuring and testing heating systems and larger industrial systems. The series performs measurement tasks such as measuring the exhaust gas temperature, determining efficiency, or CO measurement up to 30,000 ppm just as reliably as it does solid fuel measurement or the calculation of flow rates (depending on version).



Product advantages

Shock and impact proof housing

The device features a shock and impact resistant housing which is reliable, even under challenging conditions.

Service and maintenance work

In addition to maintenance and service work on gas, oil and solid fuel furnaces, the Dräger EM200plus can also perform mean value measurements according to BImSchV. The multifunction jack allows for flexible use. Here you can connect peripheral devices, such as the Dual Smart BC-Interface for reading digital burner controllers.

Inspecting the boilers and furnaces

The Dräger EM200plus can optionally be equipped with heating check and the 4 Pascal measurement tested for suitability.

Built-in operating instructions

The built-in operating instructions provide answers to questions concerning the device's operation, these come in the form of instructions, recommended solutions, and further information.

Colour touch screen with swipe function

The Dräger EM200plus-i/plus-f features a high-resolution colour touchscreen. This enables particularly easy menu navigation and quick and efficient use.

The swipe function allows you to slide back and forth between the individual screens, even whilst measuring. Measurement process tapping a measurement value shows the measurement trend in a diagram.

Wide range of documentation options

The professional equipment also includes easy handling for optimal measurement and customer data management with import and export functions. Measurements can be saved and transferred to a PC or documented on site via an infrared printer. Data is linked with customer or system data and output to measurement protocols with company logo and address.

Dräger EM200plus-f for solid fuel measurement

Changes in the ember during solid fuel combustion cause fluctuations in the flue gas temperature and flue gas composition. These fluctuations must be compensated to ensure reproducible measurements. Mean values are therefore calculated over 15 minutes when measuring flue gas of solid fuels.

Dräger EM200plus-i for measuring flow rate velocities

Since the gas velocity in the stack often varies throughout a cross section, measurements must often be taken at different points in the cross-section. The flow velocity can be determined from up to 60 individual measurements.

Accessories



5610384

Exhaust probe

Solid thermocouple, 1.5 m hose and mounting cone



5600298

Gas probe 150 mm

With thermocouple, 2.5 m hose and mounting cone

Gas probe 300 mm

With thermocouple, 2.5 m hose and mounting cone



5600679

Gas probe, incl. draft, 300 mm

Solid thermocouple, 1.5 m hose, mounting cone

Compression/tension gas probe, 200 mm

Solid thermocouple, 1.5 m hose, mounting cone



5600738

Gas probe, flexible

With thermocouple, 2.5 m hose

Accessories



5600020

Multihole probe for measuring CO

With retaining taper, adjustable from 5-15 cm, 1.5 m gas hose



5600533

Annular probe

for measuring the O₂ content in the annulus



5600365

Pressure hose for burner, 1.0 m PVC hose

For measuring gas and flow pressure



5600530

Combustion air sensor, immersion depth 270 mm

Accessories



5600356

Temperature sensor, flexible, 300 mm immersion depth
For measuring airtight furnaces, with mounting cone



5600210

Probe handle



5610337

Gas hose 2m with compensating line



5600232

Probe tube 300 mm, with thermocouple
Probe tube 750 mm, with thermocouple
Probe tube 1,200 mm, with thermocouple

Accessories



Probe tube 300 mm, pre-filter thread, with thermocouple

Probe tube 750 mm, pre-filter thread, with thermocouple

Probe tube 1,200 mm, pre-filter thread, with thermocouple



Sintered metal pre-filter for probe tube with thread



Extension for probe tube with thread

Approx. 340 mm, no thermocouple



IP67 appliance case EM200 series

Plastic, black, shock and impact resistant, air, dust and watertight

Accessories



5600788

Dual Smart BC-Interface

For reading digital burning control systems



5600401

MSI IR3 Infrared printer



5600411

Consumables set 2

Incl. 10 filter discs and 20 fleece filters



5600151

Printer paper

Packing unit 5 rolls

Related product groups



fg7500-prph-5603105

Dräger FG7500

For measuring oxygen, carbon monoxide, nitric oxide, combustion air temperature, exhaust gas temperature, draught and differential pressure, or to carry out a BImSchV measurement. The capacitive colour touch-screen allows effective use. Just like smartphones, they are conveniently controlled with tap and swipe scroll-lists, buttons, icons and windows.



fg4200-prph-5603061 (8).jpg

Dräger FG4200

The exhaust fume measuring device is particularly handy and compact and weighs only 258 g. Suitable for service and maintenance work, it features a high-quality colour touch screen.



5600739

Dräger VARIOx-2

In addition to adjustment tasks, the single-channel device can also optimise combustion for energy conservation or short-term emission measurement. It reviews limits and is suitable for process analysis.

Technical Data

Certification	DIN EN 50379 Part 1 - 3; TÜV By RgG 255; ZIV M-KC 1071-00/08
Display	Colour display with touch screen
Interface	USB for PC connection, infrared for printer, multifunction jack for peripheral devices
Power supply	Battery: NiMH, 4.8 V / 2,000 mAh; power adapter: 12 V DC / 1 A
Operating time	up to 10 h
Gas extraction	Diaphragm pumps for extracting flue gas and extending the measuring range (optional)
Gas treatment	Independently positioned gas processing cartridges with condensation collector and particle filter
Operating temperature	+ 5°C... + 40°C
Storage temperature	- 20°C... + 50°C
Air pressure	800... 1,100 hPa
Humidity	10-90% RH non-condensing

Display	Principle of measurement	Measuring range	Resolution	Accuracy	
Combustion air temperature	PTC	- 10 ... + 100°C	0.1°C	0°C ... 100°C:	± 1°C
Flue gas temperature	Thermocouple	- 10 ... + 1,200°C	0.1°C	0°C ... 400°C:	± 2°C or 1.5 % from MV ³
O ₂ , oxygen	El.-chem. sensor	0 ... 25 Vol. %	0.1 Vol. %	0 ... 21 Vol. %:	± 0.3 Vol. %
CO, carbon monoxide	El.-chem. sensor H ₂ compensated	0 ... 8,000 ppm	1 ppm	0 ... 200 ppm: 200 ... 2,000 ppm: 2,000 ... 8,000 ppm:	± 10 ppm or 10 % from MV ³ ± 20 ppm or 5 % from MV ³ ± 100 ppm or 10 % from MV ³
CO ⁺¹ , carbon monoxide	Dilution	0.600 ... 3,000 Vol. %	0.001 Vol. %		
NO ¹ , nitric oxide	El.-chem. sensor	0 ... 2,000 ppm	1 ppm	0 ... 600 ppm:	± 10 ppm or 5 % from MV ³
NO ₂ ¹ , nitrogen dioxide	El.-chem. sensor	0 ... 200 ppm	1 ppm	0 ... 100 ppm:	± 5 ppm or 5 % from MV ³
SO ₂ ¹ , sulphur dioxide	El.-chem. sensor	0 ... 3,000 ppm	1 ppm	0 ... 500 ppm:	± 10 ppm or 5 % from MV ³
Micro-draft ²		- 100 ... + 500 Pa	0.1 Pa	-50 ... 200 Pa:	± 2 Pa or 5 % from MV ³
Draft ²		- 10 ... + 10 hPa	0.01 hPa	-0.5 ... + 10 hPa:	± 0.02 hPa or 5 % from MV ³
Pressure ²		- 10 ... + 100 hPa	0.01 hPa	0 ... + 100 hPa:	± 0.5 hPa or 1% from MV ³

* = probe dependent; ** = considering calorific value coefficient; ¹ = Option; ² = Pmax. 750 hPa, ³ = measurement value

Calculated measurement data

CO, undiluted	calculated	0 ... 9,999 ppm	1 ppm
CO ₂ , carbon dioxide	calculated	0 ... CO ₂ max.	0.1 Vol. %
CO, NO, NO ₂ , SO ₂ , NO _x	calculated fuel dependent	mg/Nm ³ mg/kWh, mg/MJ	1 mg
Exhaust gas loss	calculated	- 20 ... + 100 %	0.1 %
Efficiency	calculated	0 ... 120 %**	0.1 %
Excess air	calculated	1.00 ... 9.99	0.01

Order information

Accessories

MSI IR3 Infrared printer	56 00 401
Printer paper, packing unit 5 rolls	56 90 151

Measurement packages

Dräger EM200plus-f for measuring solid fuels Incl. Dräger EM200plus-f flue gas analyser, mains charger, gas processing cartridge, USB cable, PC software*	56 00 831
Dräger EM200plus-i for measuring flow rate velocities Incl. Dräger EM200plus-i flue gas analyser, mains charger, gas processing cartridge, USB cable, PC software*	56 00 828

*PC software available for download on our website, www.draeger-msi.de.

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