

# Dräger MSI EM200 Flue Gas Analysis

The Dräger MSI EM200 allows exact and easy adjustments at gas-, oil- and auxiliary solid fuel heatings. By the use of a shockproof and shock-resistant construction the Dräger MSI EM200 is extra robust. The instrument is checked according to the European Standard EN 50379-1 and EN 50379-2. The MSI EM200 is certified and approved for official measurements.



## Measured values

The Dräger MSI EM200 measures:

- Oxygen, O<sub>2</sub>
- Carbon monoxide, CO
- Nitrogen monoxide, NO (Option)
- Nitrogen dioxide, NO<sub>o</sub> (Option) or sulphur dioxide, SO<sub>2</sub> (Option)
- Combustion air temperature
- Exhaust gas temperature
- Differential pressure (Pa, hPa, mbar)

## and calculates:

- Carbon dioxide, CO
- O<sub>2</sub> -reference values
- Concentration values in ppm, mg/Nm3, mg/ kWh or mg/MJ
- Average values
- Dewpoint
- NO (option, only with NO-Sensor)
- Draft, P in hPa
- Pressure, P in mbar
- Exhaust gas losses
- Exhaust gas losses at condensing boiler
- Excess air

You can easily transfer the measured and calculated values from the analyser to the PC or from PC to the measuring device.

The Dräger MSI EM200 is equipped with

a CO- measuring range of 8000 ppm as standard. As an option, the MSI EM200 can also be fitted with CO measurement range extension up to 3 Vol. % (corresponds to 30,000 ppm) with sensor protection by scavenging pump.

#### **Features**

The Dräger MSI EM200 is equipped with:

- Electrochemical sensors
- Integrated pump
- Data memory
- Data transfer to the PC
- Integrated infrared transmitter
- Graphic display (backlit)
- Gas conditioner, shock-resistant
- extremely shock-resistant and shockproof by fixation of components in the inner body out of EPP-foam
- Magnetic plate
- Option: Download of diagnostic data from digital burner controller by MSI Dual BCI-S

#### Data transfer

By the use of our software Dräger EM Tools you are able to transfer the measured and calculated values to the PC or from PC to the instrument. Via Dexas (software) you can display all results online on a PC or you can save it as file.



Dräger MSI EM200: Special protection of alle compenents by innovative technology of the body.

## **TECHNICAL DATA**

Approvals	EN 50379 part 1 to part 3, TÜV By RgG 255 and ZIV M-KC 1071-00/08			
Display	LC-Display, graphic, backlit, manually adjustable			
Interface	USB for PC-interface, infrared for printer, multifunction connector for additional equipment			
Operating temperature	+ 5 °C up to + 40 °C			
Storage temperature	- 20 °C up to + 50 °C			
Electric power supply	Internal NiMH battery, 4.8 V 2000 mAh, display of battery charge condition, charger			
Gas extraction	Membrane pump for gas probe			
Gas processing	Integrated gas conditioning cartridge with condensate trap and particle filters			
Weight	1,100 g			
Dimensions	165 mm x 195 mm x 75 mm (H x W x D)			

Display	Principle	Range	Resolution	Accuracy
T-combustion air temperature	PTC	- 10 up to + 100°C	0.1 °C	≤ 1 °C
T-gas	Thermocouple	- 10 up to 1000 °C	0.1 °C	< ± 2 °C
		depends on probe		or < 1,5 % of MV*
O2, oxygen	El. chem. sensor	0 up to 25 Vol. %	0.1 Vol. %	0,3 Vol. %
CO, carbon monoxide	El. chem. sensor	0 up to 8,000 ppm	1 ppm	0 4000 ppm:
	H <sub>2</sub> -compensated			± 20 ppm or 5 % of MV*
NO (Option)	El. chem. sensor	0 up to 4,000 ppm	1 ppm	± 5 ppm or 5 % of MV*
Nitrogen monoxide				
NO <sub>2</sub> (Option)	El. chem. sensor	0 up to 200 ppm	1 ppm	± 5 ppm or 5 % of MV*
Nitrogen dioxide				
SO <sub>2</sub> (Option), sulphur dioxide	El. chem. sensor	0 up to 4.000 ppm	1 ppm	± 10 ppm or 5 % of MV*
CO, undiluted	Calculated	0 up to 9.999 ppm	1 ppm	
CO <sub>2</sub> , carbon dioxide	Calculated	0 up to 20 Vol. %	0.1 Vol%	
Low pressure	Piezo-resistive	- 100 Pa up to + 100 Pa	0.1 Pa	
Draft	Piezo-resistive	- 10 up to + 100 hPa	0.01 hPa	
Pressure	Piezo-resistive	- 10 up to + 100 mbar	0.01 mbar	
CO, NO, NO <sub>2</sub> , SO <sub>2</sub>	Calculated in mg/ I			
Exhaust gas losses	Calculated	- 20 up to + 100 %	0.1 %	
Excess air	Calculated	1.00 up to 9.99 %	0.01 %	
*MV = Measured Value				

## **ORDER INFORMATION**

See price list

#### **SUBSIDIARIES**

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