

The EM200plus-E is an electronic multigas instrument with internal sampling pump. It precisely determines CO and NOx content in undiluted exhaust gases of Diesel engines. The internal ambient pressure sensor allows the immediate use without preceding calibration in underground mines.

Benefits

Shock and impact proof housing

The EM200plus-E has an impact and shockproof body.

Easy handling and an excellent technology allow precise and fast results of measurement. The high power battery affords a high operating time of typically 10 hours

Precise measurement of CO and NOx content in exhaust gases from diesel engines

One multigas analysis instrument to be used for precise testing of diesel engines in underground mining applications: regulation compliance (in some countries maximum emissions from engines are regulated to be able to set ventilation rates), health risk (a build up of these gases can be dangerous to individuals; CO, NO and NO2 have regulated exposure concentrations), operating costs (increases in CO/NOx output can indicate a problem with the engine or the scrubbers resulting in reduced fuel efficiency), reduce downtime (using these values as pre-indicator for engine breakdowns can enable preventive maintenance instead of reactive measures and loss of production).

Documentation

Saved data can be locally documented or transferred to the PC.

High precision measurement in all different depths

An internal pressure sensor automatically compensates ambient pressure influences in different depths. Therefore, engines do not have to go to the workshop as a "fixed" testing area. The EM200plus-E comes to the engine. No matter where it is located: 4,000 m below or 4,000 m above sea level.



Accessories



Equipment case EM200 line



D-544-2016

Vehicle exhaust probe (optional)
For measuring exhaust gases.



D-545-2016

Fabric tube, per meter (optional)



D-542-2016

Plug-in charger
100 – 240 V



5600411

Consumables set 2 (optional)
Incl. 10 filter discs and 20 fleece filters



D-543-2016

Infrared printer MSI IR3 (optional)



5690151

Printer paper (optional)
Packing unit 5 rolls

Technical Data

Display	High resolution colour touchscreen
Interface	USB for PC interface, infrared for printer, no multifunction jack for additional instruments
Operating Temperature	-5 °C ... +40 °C
Storage Temperature	-20 °C ... +50 °C
Power Supply	Internal: high power battery, 4.8 V 2,000 mAh, indication of state of charge
Operating time	Up to 10 h
Gas extraction	Membrane pump for gas sampling
Gas processing	Integrated gas conditioning cartridge with condensate trap and particle filter
Weight	1,100g
Dimensions	195 mm x 165 mm x 75 mm (H x W x D)

Display	Principle of measurement	Measuring range	Resolution	Accuracy
CO, carbon monoxide	El.-chem. sensor	0 ... 8,000 ppm	1 ppm	0 ... 200 ppm: ± 10 ppm or 10 % of MV ³
				200 ... 2,000 ppm: ± 20 ppm or 5 % of MV ³
				2,000 ... 8,000 ppm: ± 100 ppm or 10 % of MV ³
NO, nitric oxide	El.-chem. sensor	0 ... 2,000 ppm	1 ppm	0 ... 600 ppm: ± 10 ppm or 5 % of MV ³
NO ₂ , nitrogen dioxide	El.-chem. sensor	0 ... 200 ppm	1 ppm	0 ... 100 ppm: ± 5 ppm or 5 % of MV ³
NO _x , oxides of nitrogen	El.-chem. sensor	0 up to 2,000 ppm	1 ppm	
Barometer	Piezo-resistive	800 ... 1,700 hPa	1 hPa	

MV³ = Measuring Value