



MGA 12 EX

Product Information



**Ex II 2G Ex d IIB+H2 T5 Gb,
protective principle Ex d**

The multi gas analyser MGA 12 EX serves the continuous measurement of pollutants in process gas (e.g. CO, CO₂, SO₂, NO) and the measurement of O₂ as well as the continuous process control.

Thereby the device is approved for application in potentially explosive atmospheres according to Ex II 2G Ex d IIB+H2 T5 Gb, protection principle Ex d (explosive gases can be led in).

Application

The MGA 12 EX is applicable all-purpose for measurement of emissions, raw gases or processes. In operational emission measurement systems, amongst others, it serves the exhaust concentration control in combustion plants with different types of fuel, the thermal waste treatment, the combustion optimisation and the process and safety management control.

Application examples:

- Power plants
- Industrial exhaust air
- Waste incineration plants
- Paper mills
- Refineries
- Chemical industry
- Cement industry
- Coal bunkers

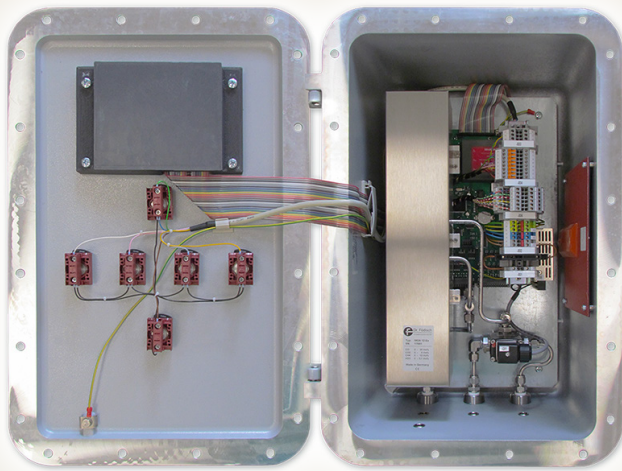


Measuring ranges

Component	Measuring range 1	Measuring range 2
CO:	0...125 mg/m ³ (0...100 ppm)	0...1000 mg/m ³ (0...800 ppm)
CO ₂ :	0...20 vol. %	-
SO ₂ :	0...200 mg/m ³ (0...70 ppm)	0...1000 mg/m ³ (0...350 ppm)
NO:	0...500 mg/m ³ (0...375 ppm)	0...1000 mg/m ³ (0...750 ppm)
NO ₂ :	0...500 mg/m ³ (0...245 ppm)	0...1000 mg/m ³ (0...485 ppm)
CH ₄ :	0...500 mg/m ³ (0...700 ppm)	0...1000 mg/m ³ (0...1400 ppm)
H ₂ S ^[1] :	0...75 mg/m ³ (0...50 ppm)	-
H ₂ O:	0...3 vol. % ^[2]	-
O ₂ ^[1] :	0...25 vol. %	-

^[1] measurement via electrochemical cell, ^[2] residual moisture after cooling unit

Other measuring ranges are possible on request.



Highlights of the device

- simultaneous measurement of up to five gas components
- application in EX zone
- pressure-resistant gas path up to 3 bar
- reduced cross-sensitivities by internal spectral filter
- integrated zero gas valve for zero point correction
- all gas-contacting elements are made of metal
- first-class price-performance ratio

Technical data

Housing:	robust housing, IP66; thermostatted infrared photometer (optical bench)
Dimensions	560 mm x 400 mm x 290 mm (w x h x d)
Weight:	approx. 40 kg (with option of paramagnetic oxygen measurement approx. 75 kg)
Ambient temperature:	-20...+40 °C
Measuring methods:	- electrochemical cell(O ₂ , H ₂ S) - infrared photometer (CO, CO ₂ , SO ₂ , NO, NO ₂ , CH ₄ , H ₂ O) - paramagnetic measuring method (option for O ₂)
Display/operating:	graphic display (LCD), 240 x 128 Pixel, background-lighted; menu-driven operating; display possibility in mg/m ³ , ppm and vol. %; languages: German, English; 6 operating keys
Accuracy:	< 2% of the respective measuring range
Zero point correction:	automatic with integrated zero gas valve
Sensitivity correction:	manual, with test gas
Air pressure correction:	internal pressure sensor for real-time pressure compensation of measuring values
Gas inputs/outputs:	measuring gas inlet, measuring gas outlet and zero gas inlet respectively with flame barrier, 6mm Swagelok
Digital outputs:	4 digital outputs, potential-free, 24 V DC with max. 0.4 A (max. 10 W) for failure, maintenance, maintenance request and zero point setting
Analogue outputs:	4 active analogue outputs, 4...20 mA, potential-free, burden max. 500 Ohm
Service interface:	RS232 and remote software for maintenance and diagnostic purpose
Power supply:	230 V AC / 50-60 Hz, 40 W (max. 90 W)
Application in EX zone:	according to Ex II 2G Ex d IIB+H2 T5 Gb, protective principle Ex d (explosive gases can be led in)

Special models are possible on request.