



## GMD 12

### Product Information

The GMD 12 is a compact and high-grade automated system for isokinetic gravimetric dust measurement in exhaust ducts and stacks.

The gravimetric measuring device consists of measuring unit, pump, sample probes and special accessories, e.g. filters. All components are inserted in separately portable cases.

#### Features

The gravimetric dust measurement is used as reference measuring method for the calibration of dust measuring devices.

The GMD 12 has the ability to measure all marginal parameters which are necessary for dust measurement (e.g. humidity of measuring gas, velocity in exhaust duct as well as temperature and pressure) on its own.



Sample probes



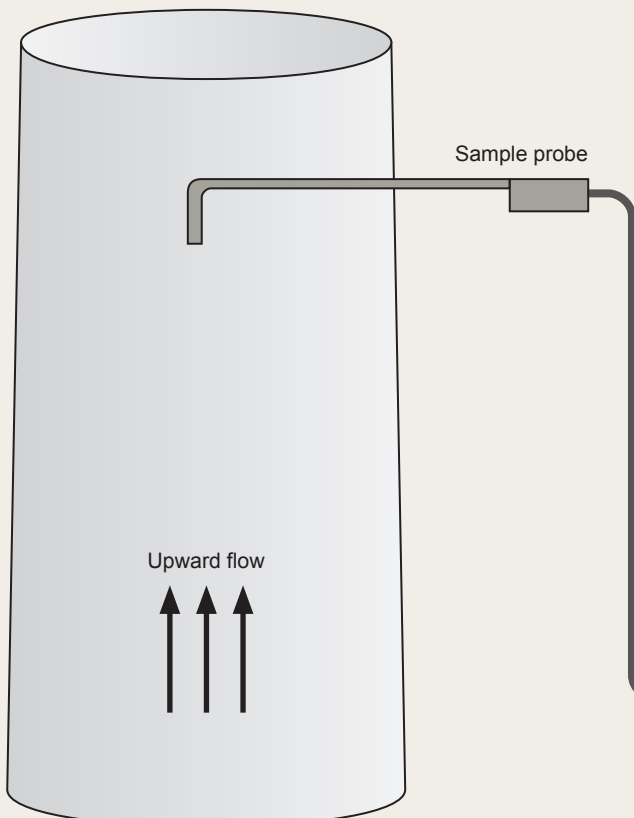
Measuring unit



Pump



#### Installation example



#### Function

By means of the GMD 12 the measuring gas velocity, the measuring gas pressure and the sampled measuring gas volume are registered. Besides, the measuring gas humidity can be measured by a separate sample probe. Consequently, all relevant parameters for determination of dust content are registered by the system on standard conditions and the measuring gas sampling is regulated fully automatic isokinetic.



### Highlights of the device

- easy and safe handling of the complete system by separately portable cases
- easy, menu-driven operating
- selection of the appropriate sample nozzle is assisted by the measuring unit
- storage of the current measuring values during measurement for future analysis
- ergonomic sample probe with integrated aerosol filter

Portable cases  
(e.g. accessories)



### Technical data

Measuring unit:	case model, 500 mm x 440 mm x 190 mm (w x h x d), approx. 13 kg
Pump:	case model, 350 mm x 240 mm x 220 mm (w x h x d), approx. 12 kg
Sample probes:	case with dust and humidity probe, 1570 mm x 120 mm x 230 mm (w x h x d), approx. 6 kg; max. cable length / max. distance to measuring unit: 5 m - dust probe: length: 1550 mm; immersion depth: max. 1350 mm - humidity probe: length: 950 mm; immersion depth: max. 650 mm
Accessories:	all necessary cables, hoses, filter elements as well as thermal printer; case with accessories: 410 mm x 370 mm x 210 mm (w x h x d), approx. 9 kg
Measuring gas temperature:	max. 280 °C
Dew-point spread of measuring gas:	min. +5 K
Instrumentation opening:	3"
Ambient temperature:	0...50 °C
Optimal dust content:	0...1 g/m <sup>3</sup>
Power supply:	230 V AC / 50 Hz, 200 W
Display/operating:	pivoting graphic display integrated in the measuring unit; language: English
Data output:	via Compact-Flash memory card (1 GB), RS232 interface or printer
Measuring ranges:	- dynamic pressure: 0...10 hPa - static pressure: -300...+300 hPa - barometric pressure: 700...1100 hPa - volume flow rate (sampling): 5...60 l/min - temperature (previous to flowmeter): 0...95 °C - temperature (exhaust): 0...280 °C - humidity: 0...40 vol. % - response time: < 8 s
Optional:	- measurement of up to 6 gas components (CO, NO, SO <sub>2</sub> , O <sub>2</sub> , NO <sub>2</sub> , H <sub>2</sub> S) - special nozzles respectively sample probe for detection of dust and fine dust concentrations - special plane filter head for measurement in dependence on DIN EN 13284-1

*Special models are possible on request.*