

- The waste gas watchdog
- Microprocessor-controlled on-line gas analyzer for the fully automatic measurement of HCl, HF according to German law (17. BImSchV) or NH₃ in stack gas.

Applications

- Waste and sludge incineration plants
- Heating and power plants
- Aluminium smelting
- Glass and ceramic production

The Monitor 90 Ecometers are used to measure gaseous inorganic chlorine, fluorine or ammonium compounds.

They are ideal for process monitoring and emission control, and comply to the requirements of the German emission control regulations (BImSchV) - among the strictest in the world.

The high system availability makes the Ecometer an ideal component of automatic control systems for emission control installations.



Monitor 90 Ecometer

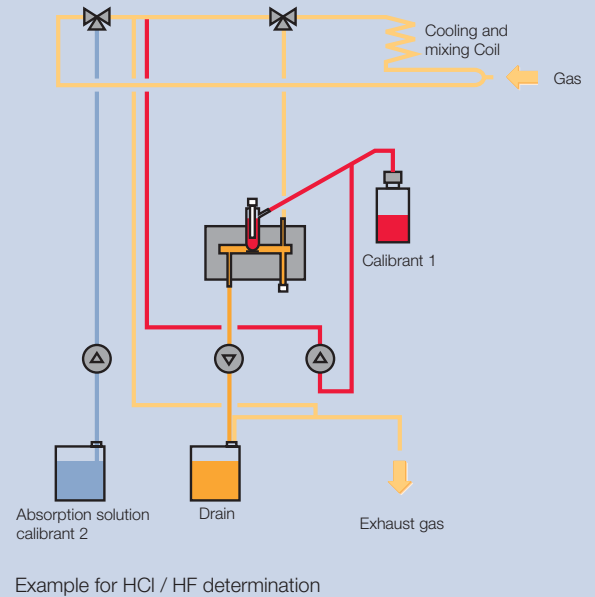


The Monitor 90 Ecometers are used to measure gaseous inorganic chlorine, fluorine or ammonium compounds.

The Ecometer's modern micro-processor technology and straight forward operation make it easy to integrate into existing installations.

Advantages

- Minimal reagent consumption for low operating costs
- Low maintenance, with selfchecking and automatic recalibration
- Automatic correction for sample pressure and temperature
- Low sensitivity to interference, below statutory requirements
- High stability, with low standard deviation and drift
- Industry standard interfaces and outputs



Measuring principle

Potentiometric analysis: The gaseous sample is drawn in through a heated sample line, the soluble components are

dissolved in an absorbing solution, and the resulting sample solution is measured with an ion-selective electrode.

Technical Data

Measuring principle

potentiometric

Lowest range

HCl in mg/m^3 0 - 15
 HF in mg/m^3 0 - 2
 NH_3 in mg/m^3 0 - 10

Accuracy

< $\pm 5\%$ of full scale

Detection limit

typ. 1 - 4% of full scale

Baseline drift

< 2% per 24 h

Sensitivity drift

< 4% per 24 h

Display

in mg/Nm^3 wet,
 can be corrected to mg/Nm^3 dry

Output signal

0/4-20 mA,
 load 400 Ohm
 linear response

Option:

galvanically separated
 RS 232,
 RS 485 bus interface

Limit signal

potential-free contact
 max. load 50 V AC,
 60 V DC, 3A

Status/Alarm signal

potential-free contact
 max. load 50 V AC,
 60 V DC, 3A

Sample (at sampling point)

Pressure
 800 - 1000 mbar absolute

Pressure difference
 ± 40 mbar to atmospheric

Temperature
 max. 673 K (400°C)

Volume
 approx. 50 - 70 l/h

Dust content
 max. 20 g/m^3

Sample probe

for DN 65 flange (DIN 2631)

Power supply

Voltage
 230 V, others on request

Tolerance
 $\pm 10\%$

Frequency
 50 or 60 Hz

Power consumption

Analyzer
 approx. 900 VA

Sample line
 approx. 125 W/m at 200°C
 approx. 200 W/m at 300°C

Sample probe

approx. 900 VA

Environmental temperature

278 - 308 K (5 - 35°C)

Colour

grey/white (RAL 9002)

Mounting

free standing

Sample inlet

right-hand side
 (600 mm free space required)

Protection class

IP 54 DIN 40050

Weight

approx. 90 kg
 Sample probe
 approx. 20 kg

Dimensions (HxWxD)

1795x600x410 mm