

Total mercury analyser

Measuring device for fully-automatic and continuous mercury analysis in smoke gas (without wet chemistry).

Features

- Maintenance-free (6 months) dry reactor
- High operational safety
- Easy maintenance
- Low cross sensitivities
- Easily legible LC display.

Applications

- Waste incinerations (municipal waste, industrial waste, hospital waste)
- Sewage sludge incineration
- Hazardous waste incineration
- Steel plants with scrap metal preparation
- Contaminated soil burning plants
- Crematoriums
- Mercury mines and refineries
- Fluorescent light bulb recycling plants.

Approvals

- Suitability-tested by the TÜV Hamburg, test report 00 CU 014
- Itemized in the list of suitable measuring devices for continuous emission measuring
- MCERTS.



Measuring principle

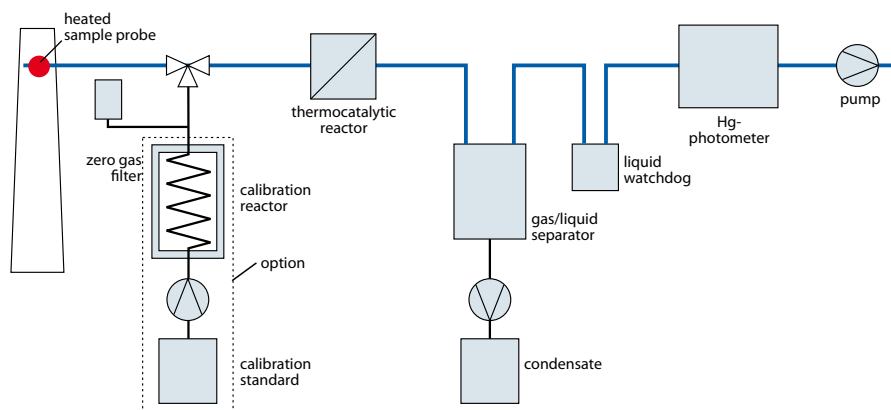
In the HM 1400 TR total mercury analyser the sample gas is converted into mercury vapour by a combination of thermal and dry chemical treatment. This is then continuously measured in a photometer. The probe gas flow is measured after a gas cooler at 2°C. The concentration is calculated and displayed as „dry flue gas“.

System components

- sampling probe
- sampling line
- measuring device.

Options

- Larger measuring range with dilution device
- Top-mounted cooling device
- Automatic probe back purging device, dilution device for gas sample
- Integrated system to generate calibration gas.



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| measurements | total mercury | digital outputs | 4 relay outputs, permissible load 250 V, 100 VA |
| measuring ranges | 0–45 ... 0–500 µg/Nm ³ | digital inputs | 1 potential free outputs |
| measuring principle | UV-absorption | detection limit | <1 µg/Nm ³ |
| flue gas temperature | 0–250 °C | reference point drift | <2% of measuring range/month |
| flue gas pressure | -50 up to +50 hPa | zero point drift | automatic zero correction |
| duct diameter | >0.5 m | supply voltage | 230 VAC, 50 Hz, 1200 VA, sample probe: 650 VA, sample line: 100 VA/m |
| ambient temperature | +5 bis +30°C | dimensions (h x w x d) | cabinet 1600 x 800 x 500 mm |
| protection | IP40 (IP55) | weight | 220 kg |
| measuring outputs | 2 x 0 / 4–20 mA/500 Ohm | purge air supply | pressurized air 3–6 bar |
| accuracy | <1% of measuring range | | |