

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

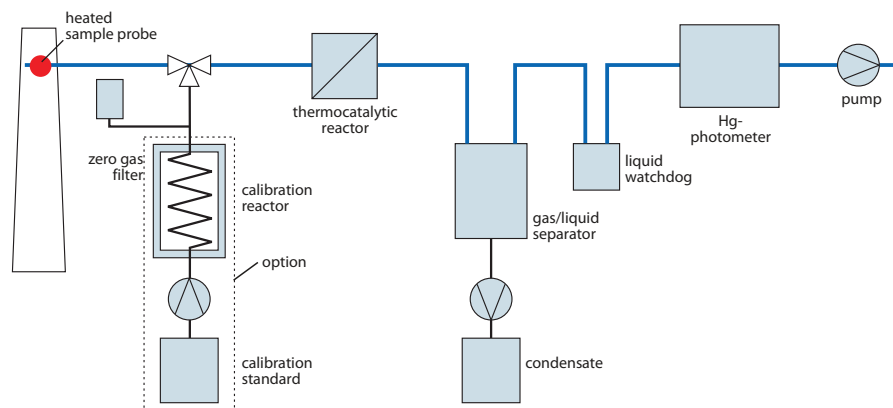
In the HM 1400 TR total mercury analyser the sample gas is converted into mercury vapour by a combination of thermal and dry chemical treatment. This is then continuously measured in a photometer. The probe gas flow is measured after a gas cooler at 2°C. The concentration is calculated and displayed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



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

