


Continuous emission monitoring system IMR 7500



A large, light blue circular watermark logo for IMR is centered in the background. It features the letters 'IMR' in a bold, sans-serif font, with a registered trademark symbol (®) to the upper right. The circle is divided into four quadrants by a thin white cross.

IMR 7500 is the continuous
emission monitoring system of IMR®.

The IMR 7500 is approved by the German
TÜV according European and German
environmental regulations,
and complies with EN 14181.

TÜV report: 936/21200089/A

TÜV approval is recognized by US EPA.

TÜV approved are the components:

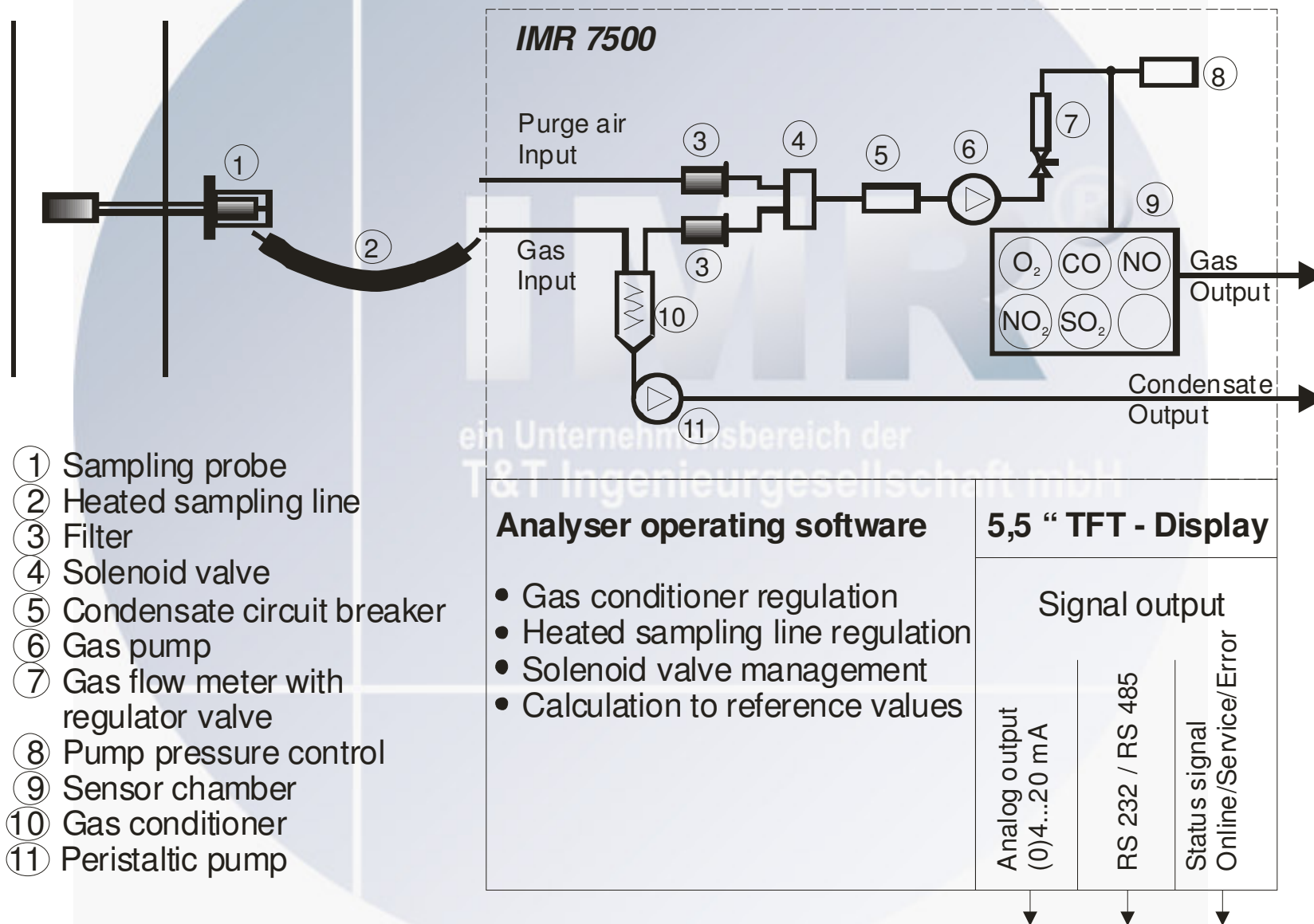
- Oxygen O₂
- Carbon monoxide CO
- Nitric oxide NO
- Nitric dioxide NO₂
- Sulphur dioxide SO₂
- Flue gas temp. T_{gas}

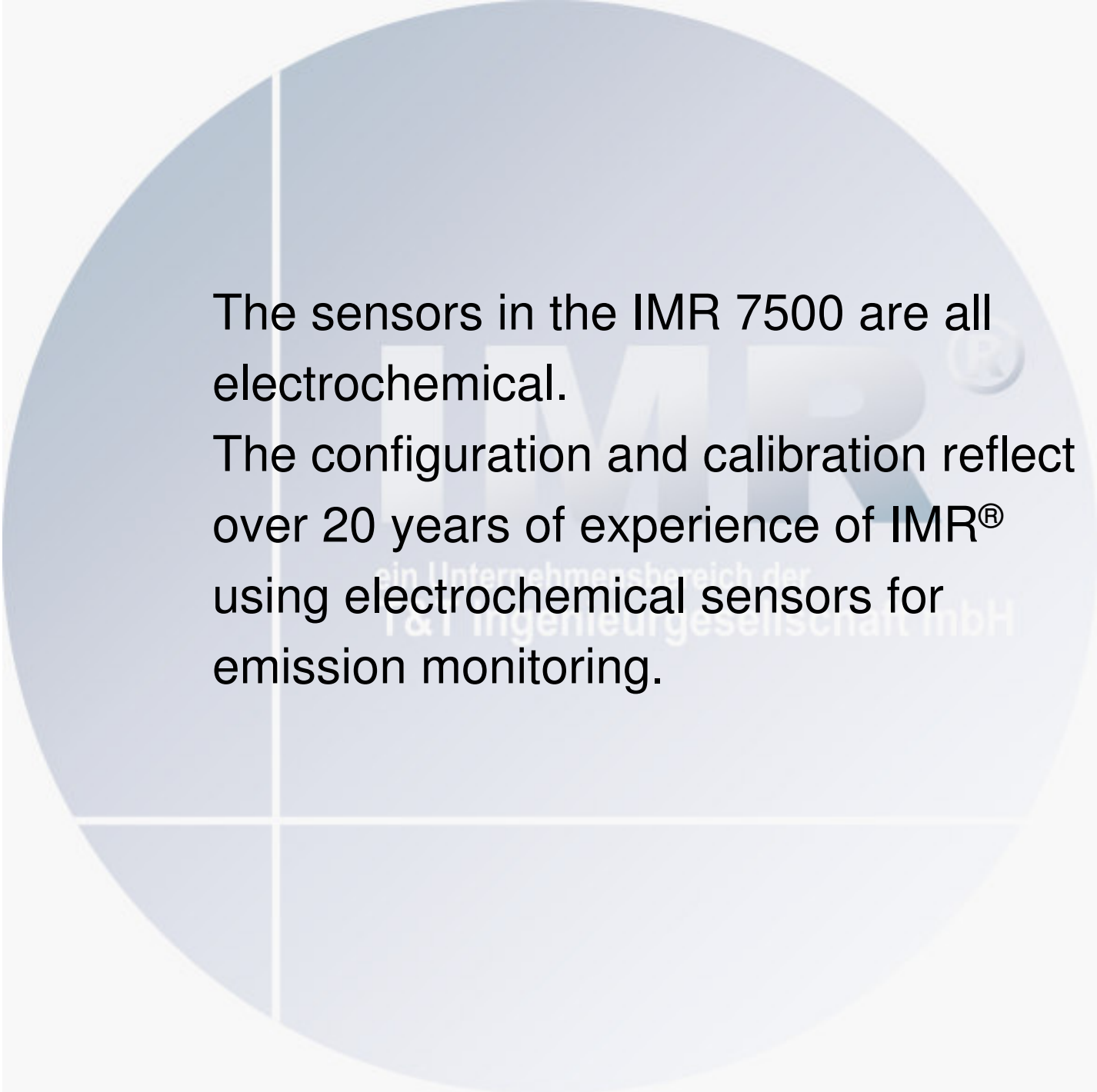
Typical applications for IMR 7500 are:

1. Emission monitoring for process control
i. g. cement plants, glass factories
2. Emission monitoring in power stations
to comply with local environmental regulations
3. Emission monitoring in incinerator plants
to comply with local environmental regulations

Depending on the application the system can be adopted.

System outline:

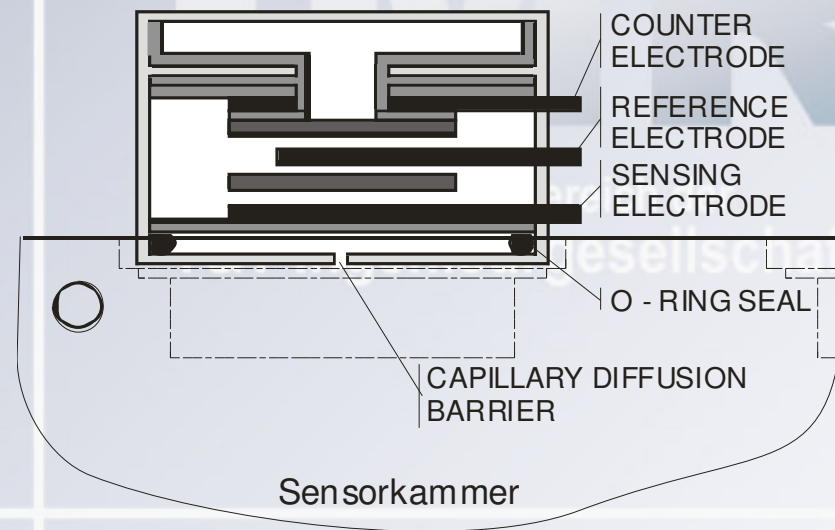


A large, light blue circular watermark logo for IMR is centered in the background. It features a stylized 'IMR' with a registered trademark symbol. Below the letters, there is smaller text in German: 'ein Unternehmensbereich der' and 'I&I Ingenieurgesellschaft mbH'.

The sensors in the IMR 7500 are all electrochemical.

The configuration and calibration reflect over 20 years of experience of IMR® using electrochemical sensors for emission monitoring.

Electrochemical sensor for toxic gases



By definition electrochemical sensors are micro fuel-cells. Mounted on the IMR[®] sensor chamber the flue gas is introduced to the sensors through the capillary diffusion barrier.

The electrolyte in the sensors is reacting. The sensor reaction is detected by the sensing electrode embedded in the electrolyte. The sensor reaction in mV is proportional to the concentration of the gas. The reference electrode is used to calibrate the sensor at 0.

Complete CEM systems

Depending on application and customer request IMR® can provide complete CEM systems consisting of i.e.:

- Gas analyzer
- Flue gas volume and velocity measurement
- Dust or particles

Installations

Depending on the application CEM system[®] can be installed in air conditioned cabinets or full container houses.

The installation in a container house allows the design of a fully independent system.



Maintenance plan Continuous emission monitoring system

Stand 01/2005

Model	Chapter in user manu al	works	daily	weekly	3 months	6 months	annual
IMR 7500	14.1.	General inspection, check of status signals					
	14.2.	Check gas flow meter					
	14.3.	Check filter on analyzer back, replace if visibly dirty					
	14.3.	Check filter in flue gas probe, clean and/or replace					
	14.4.	Check condensate circuit breaker					
	14.4.	Check solenoid valve					
	14.5.	Check peristaltic pump, replace hose			Check	replace	
	14.6.	Check gas pump, clean replace diaphragm			Check	clean	replace
	14.7.	Check flue gas probe and gas sampling line					
	14.8.	Check gas conditioner and ventilator			Ventilator	gas cond.	
	14.8.	Clean gas conditioner					
	14.9.	Calibrate sensors					
Aircon. (if installed)		Check function					
		Clean filters					