

Analyser of sulfur compounds (H₂S and mercaptans) for control in continuous in ambient air in screening building

Main characteristics:

To ensure the safety of operatives in the screening building of the waste water treatment works an **H₂S detector** has been installed in the main building to complement the protection provided by individual monitors. Chromatographic measurements show that other sulphurous compounds including Methylmercaptans are present in the air additional to H₂S.

Five outlets in the building are located near six rough screens dedicated to primary treatment. The presence of sulphur compounds can vary from screen to screen and from one day to the next depending upon the quality of the incoming waters. Measurements need to be taken as close to the incoming water as possible. Results for each area are visually presented near the entry/exist.

1. Sampling

The analyser has a sequencer that allows for the six intakes. The maximum length between the analyser and the sample point is 10 metres. The atmosphere around the screens is quite humid and intake lines are setup to stop this humidity reaching the analyser.

2. Analyser

The analyser is capable of measuring H₂S and mercaptans in ambient air. Compounds like **Ethylmercaptan**, **DMS** and **DMDS** are optional. The measuring range of the two compounds is between 10ppb and 100ppm.

3. Alarms

Compound concentrations are visible locally and are also relayed to a supervising system. A visual and audible alarm can be activated when threshold levels are achieved. The remote analyser can also provide condition alarms to the supervising system.

4. Protection of the analyser and of other systems

The analyser is housed in a temperature controlled cabinet to ensure continued reliable operation.