

Ammonia and nitrate monitoring in a municipal waste water treatment plant

application note



8810 analyser

1 - Influent screening

Monitoring of ammonia and nitrate levels at an early stage in the treatment process can provide information about incoming sewage strength. This may change due to natural daily variation, storm conditions or discharges of industrial waste to the waste water treatment plant.

Range of measurement : 0 - 50 mg/l

2 - Final effluent monitoring

The monitoring of ammonia and nitrate in sewage treatment final effluent can provide information about the performance of treatment processes. This information is usually obtained in performing laboratory analysis on a daily basis. However, on-line analysis will provide a clearer understanding of process variability and provide a rapid response to changes in the process :

- * To optimize process performance and indicate operational problems, for example poor nitrification due to insufficient aeration or retention time in the activated sludge process
- * To improve knowledge of treatment processes and indicate long term performance trends.
- * To ensure the conformity to environmental regulations before discharge

Range of measurement : 0 - 10 mg/l

3 - System configuration

a) 8810 AMMONIA ANALYSER

- | | |
|----------------|---|
| . 368810,36XXX | Analyser model, ISE base unit includes ammonia measuring electrode, temperature sensor Pt100 and reagent peristaltic pump for sample conditioning with NaOH |
| | XXX = 220V 220V/50Hz |
| | XXX = 240V 240V/50Hz |
| | XXX = 116V 110V/60Hz |
| | XXX = 115V 110V/50Hz |
| . 368810,56000 | Automatic chemical cleaning system |
| . 368810,76000 | Automatic heating device / controller |

OPTIONS

- | | |
|----------------|---|
| . 368810,72000 | Automatic calibration, pulse pump complete with canister and level detector |
| . 368810,40000 | Wall mounted fiberglass cabinet |
| . 368810,45000 | Free standing cabinet |

b) 8810 NITRATE ANALYSER

- | | |
|----------------|---|
| . 368810,35XXX | Analyser model, ISE base unit includes nitrate measuring electrode, temperature sensor Pt100 and reagent peristaltic pump for sample conditioning |
| . 368810,56000 | Automatic chemical cleaning system |
| . 368810,76000 | Automatic heating device / controller |

OPTIONS

- . 368810,72000 Automatic calibration, pulse pump complete with canister and level detector
- . 368810,40000 Wall mounted fiberglass cabinet
- . 368810,45000 Free standing cabinet



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