

In this application, the concentration of ammonia in the final treated water is usually monitored from a sampling point taken off from the final main outflow from the plant.

Suitable valving and/or pressure reduction equipment may be necessary, depending on the particular plant conditions.

Why use an Ammonia Monitor?

- ▶ It monitors the operation and performance of the ammonia addition into the final treated water (the presence of excess ammonia may lead to the formation of nitrites in the distribution system).
- ▶ The use of excess ammonia is therefore generally being reduced due to concern about the formation of nitrite.
- ▶ Maintaining a slight free chlorine residual in the distribution system prevents ammonia from producing nitrites (but unless the free chlorine residual is carefully controlled, problems of taste and odour may persist).
- ▶ It is essential that efficient mixing and correct dosing are maintained in order to comply with the legislative requirements.
- ▶ An on-line ammonia monitor continuously monitors (and if required controls) plant performance, thereby ensuring compliance with current legislation.

Why use ABB Instrumentation?

- ▶ Proven reliability with low maintenance requirements.
- ▶ Low on-going reagent/operational costs.
- ▶ Manual intervention reduced to only four-weekly reagent replenishment and a twelve-monthly service, guaranteed through the use of specially developed long-life pump tubing.
- ▶ Single consumable spares kit, included with monitor, includes all spares and peripheral items necessary for two years operation - no hidden extras.
- ▶ Proven reliability – over 100 years of process instrumentation experience.
- ▶ Full installation, commissioning and routine servicing is available.

What ABB Products are Suitable?

- ▶ **Model 8232 Ammonia Monitor**
 - Two high or low concentration alarms can be generated and sent back to main control unit.
 - Diagnostics displayed locally and available as master alarm for transmission back to main control unit.
 - Current output (one as standard, second optional) can be expanded to show an expanded window of the overall range of the monitor and can be output to a local recorder or DCS system.
 - Optional serial communications link for computer interface.

Associated ABB Products for use in Potable Water Treatment Plant

▶ Analytical Applications

- pH transmitters on the inlet, coagulation, lime addition and final treated water.
- Dissolved oxygen monitors for reservoir storage.
- Ammonia monitors on the inlet water.
- Phosphate monitors on the inlet and final treated water (if phosphoric acid addition being made).
- Nitrate monitors on inlet and for de-nitrification control.
- Turbidity monitors on the inlet, clarifiers, filters and final treated water.

Installation

- ▶ In this application, the sample is at ambient temperature and therefore requires no preparation.
- ▶ The sample is usually tapped from the treated water line at typically up to 5 bar pressure.
- ▶ Pressure reduction, isolation and trimming valves may need to be fitted to obtain the correct sample flowrate for the monitor (5 – 1250ml/min.)

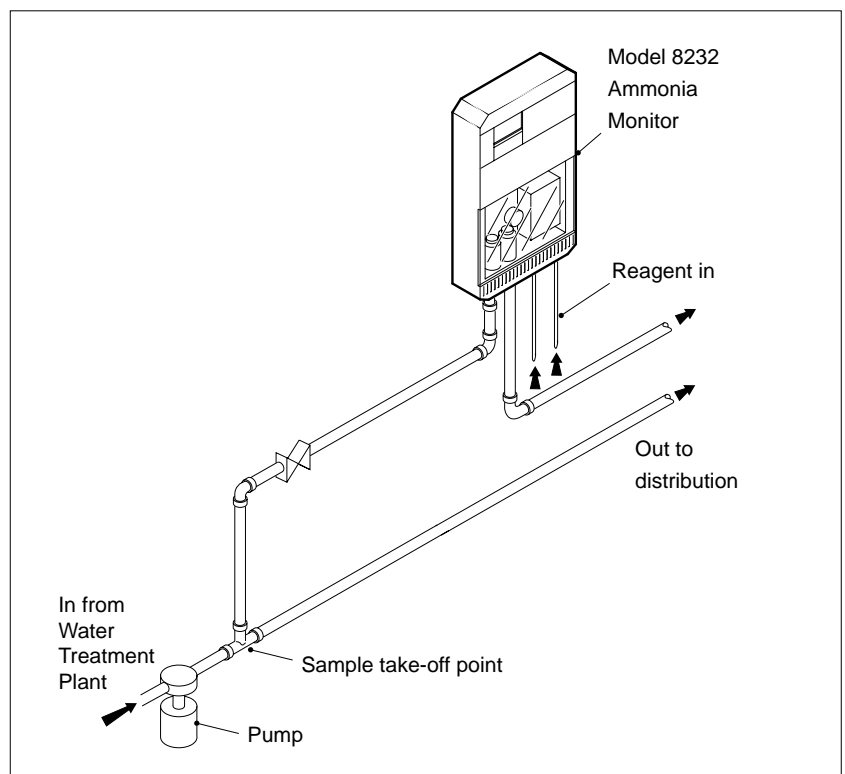


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