

At the sampling point, a sample is drawn from the river via a pump and ultrafiltration system and pumped to the type 8232 Ammonia monitor as shown above.

In addition to monitoring for ammonia, the system also provides upstream intake protection monitoring for the water treatment plant abstraction point.

Why use an Ammonia Monitor

- ▶ An on-line ammonia monitor continuously monitors for ammonia, thereby ensuring compliance with local and national quality requirements.
- ▶ It provides upstream monitoring for potable water treatment plant giving intake protection if necessary.

Why use ABB Instrumentation?

- ▶ Proven reliability with low maintenance requirements
- ▶ Low on-going reagent/operational costs
- ▶ Manual intervention is reduced to only a 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.
- ▶ **Model 9381 Ultrafilter** (required if the suspended solids concentration in the sample >10mg/l and/or <60 microns)
 - Sample requirements:
 - minimum pressure 1.5 bar,
 - minimum sample flowrate 70 litre/minute,
 - the sample delivery pump must be capable of this duty.

Associated ABB Products for use in River Water Monitoring

► Analytical Applications (Water Quality)

- pH transmitters.
- Dissolved oxygen monitors.
- Nitrate monitors.
- Turbidity monitors.
- Process recorders.

Installation

- In this application, the sample is at ambient temperature and requires no sample conditioning.
- The sample is extracted from the sampling point and pumped to the ultrafilter and monitor.
- It is particularly important to note the sample requirements for the ultrafilter and to ensure the pump is capable of this duty.
- A pressure reduction valve is necessary to provide the correct back pressure for the ultrafilter.
- This will usually form part of a more comprehensive river water quality monitoring system where buildings offering protection, power and sampling facilities may be available. Some form of additional environmental protection is necessary for this equipment.

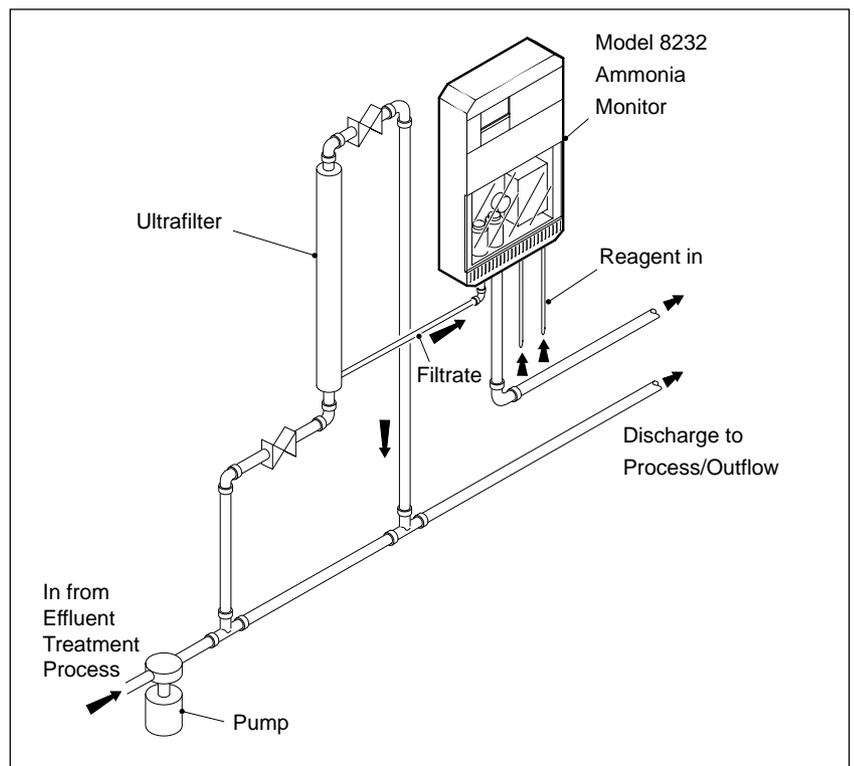


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