



## Why use hydrazine monitoring in the Steam/Water cycle ?

### The customer needs:

- ▶ To ensure there is sufficient hydrazine present to react with any sudden surges of oxygen and to maintain the dissolved oxygen content of the feedwater at the required concentration.
- ▶ To optimize operating costs by avoiding overdosing (or underdosing) of this expensive chemical.
- ▶ To ensure the plant operates at maximum efficiency.

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## Why use ABB Instrumentation ?

- ▶ ABB offer greater security at a lower cost by having:
  - a worldwide network of companies and agents to ensure backup in most countries,
  - proven reliability – over 100 years of process instrumentation experience,
  - full installation, commissioning and routine servicing facilities available (in the UK this is covered by the **Assist**™ Customer Support Programme.
- ▶ ABB provide an extensive range of analytical systems including; pH, dissolved oxygen, conductivity, chloride, phosphate, sodium and silica and all associated instrumentation.
- ▶ One stop shop for supply of all spares, electrodes, etc.
- ▶ ABB provide full details of all necessary reagents giving the client the most cost-effective procurement options.
- ▶ Established low-maintenance systems enable continuous monitoring for optimum plant performance.

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## What ABB products are suitable ?

- ▶ **EIL 7835 Hydrazine System, comprising: Model EIL7835-100 Transmitter Unit and EIL7835-200 Liquid Handling System**
  - Dual range system (0 to 99.9µg/kg and 0 to 999µg/kg).
  - Fast response time – 90% of a step change in less than 3 minutes.
  - Automatic microprocessor-controlled range switching facility.
  - Self-contained system with automatic calibration (manually initiated) to minimise operator intervention and reduce downtime.
  - Hydrazine sensor can be easily refurbished (applicator and recharge gel supplied for first change).
  - Displays include, hydrazine concentration, sample temperature, running mode and calibration information.
  - Remote indication of both reading and range available via two isolated current outputs and contacts.
  - Electronics unit can be separated from the liquid handling system by up to 100 metres.

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## **Other ABB monitoring capabilities suitable for use in the Steam/Water Cycle ?**

### **Analytical Applications:**

- ▶ Dissolved oxygen monitoring (using type EIL9435 monitors).
- ▶ Low level conductivity monitoring of the process water (using type 4620/25 transmitters) and associated conductivity cells.
- ▶ High level conductivity monitoring for resin bed regeneration (using type 4621/26 transmitters) and associated conductivity cells.
- ▶ pH monitoring (using type 4630/35 transmitters) and associated electrode systems.
- ▶ Sodium monitoring (using type 8036 Sodium Monitors).
- ▶ Silica monitoring (using type 8241 Silica Monitors).

### **Industrial Applications:**

- ▶ Recorders and recorder/controllers (PR100, C1900, C100, C150, C200, C300).

### **Flow Applications:**

- ▶ MagMaster flowmeters,
- ▶ Type 600T differential pressure transmitters.

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## **Installation**

- ▶ ABB Hydrazine monitors are normally close-couple mounted within the plant either on a panel/rack or against a wall – preferably in an air conditioned environment.
- ▶ Sample cooling and pressure reducing equipment may be necessary, especially if particulate matter is present in the sample.
- ▶ It may be necessary to fit a needle valve upstream of the cell to ensure the sample flow remains within the required limits.
- ▶ Reagent and calibration solutions are contained within the liquid handling section, however replacement solutions should be stored in plastic containers and where possible freshly made.



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