

In this application, the concentration of organics would be measured at the outlet of the carbon filter to monitor the correct performance. Typically, readings would be less than 1 mg/litre and the low range monitor would be used for this application.

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

Why use UV Absorption Monitors on a Carbon Filter

- ▶ To determine when the carbon filter needs replacement carbon powder.
- ▶ To measure the effectiveness of the treatment plant.
- ▶ To monitor the final water as a further verification of water quality.
- ▶ To monitor the efficiency of the carbon filter.
- ▶ To protect against breakthrough of organisms in the final water.
- ▶ To ensure compliance with drinking water standards.

Why use ABB Instrumentation?

- ▶ Utilises auto cleaning to prevent optical fouling.
- ▶ Works reliably even with high levels of manganese and iron in the sample.
- ▶ Stable, no-drift performance – performance verification is minimal.
- ▶ Long life light source – up to 10 years.
- ▶ Fixed trials have demonstrated the effectiveness of this analyzer on this application.
- ▶ No reagents or consumables (i.e. pump tubing) required – virtually no running costs.

What ABB Products are Suitable?

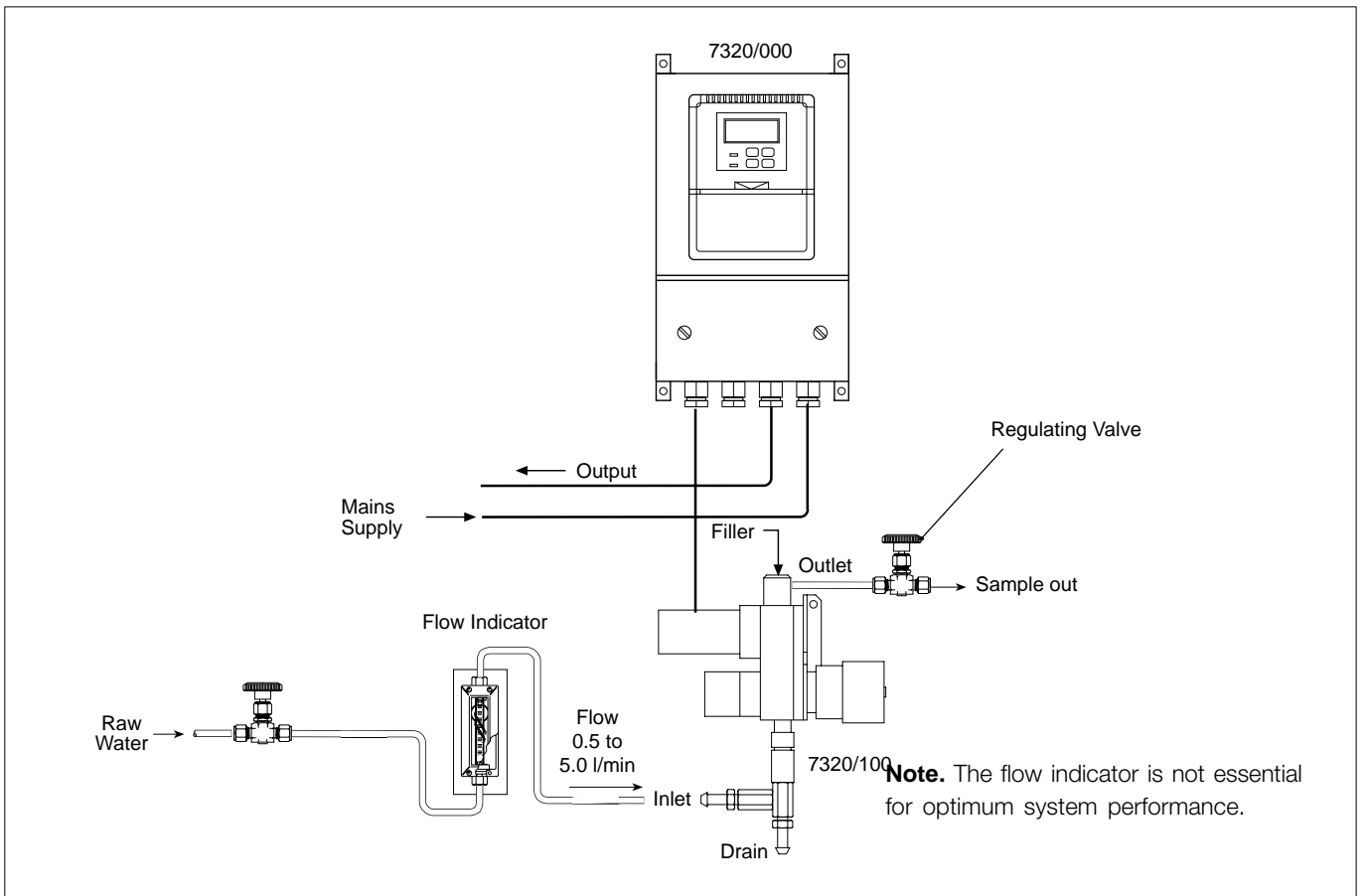
- ▶ 7320/1000 Complete System, which operates over the range 0 to 10 mg/l, with a minimum range of 0.2mg/l.

Associated ABB Products for use in Potable Water Treatment Plant

- ▶ Turbidity on raw water, after the clarifiers, after the filters and final water.
- ▶ pH control of the coagulation process.
- ▶ pH of raw water and of final water.
- ▶ Ammonia on raw water intake and on final water.
- ▶ Fluoride monitoring.
- ▶ Phosphate monitoring on final water.
- ▶ Nitrate monitoring of intake and final water.
- ▶ Flow measurement and recording.

Installation

- ▶ Avoid air bubbles by regulating the flow down stream of the monitor.
- ▶ Ensure the flow rate is within the limits stated in specification sheet.
- ▶ Ensure there is sufficient space to allow easy access to the wiper motor, the light source and the receiver.
- ▶ Ensure there is sufficient head room to make calibration a convenient procedure.



Comparison of Colour/UV Absorbtion

Graph showing analyzer results against laboratory T.O.C. analysis which demonstrates the strong and consistent relationship between the two measurements. By applying a coefficient factor it is possible to use the UV measurement as a cost effective surrogate measurement for T.O.C. where site conditions are suitable.

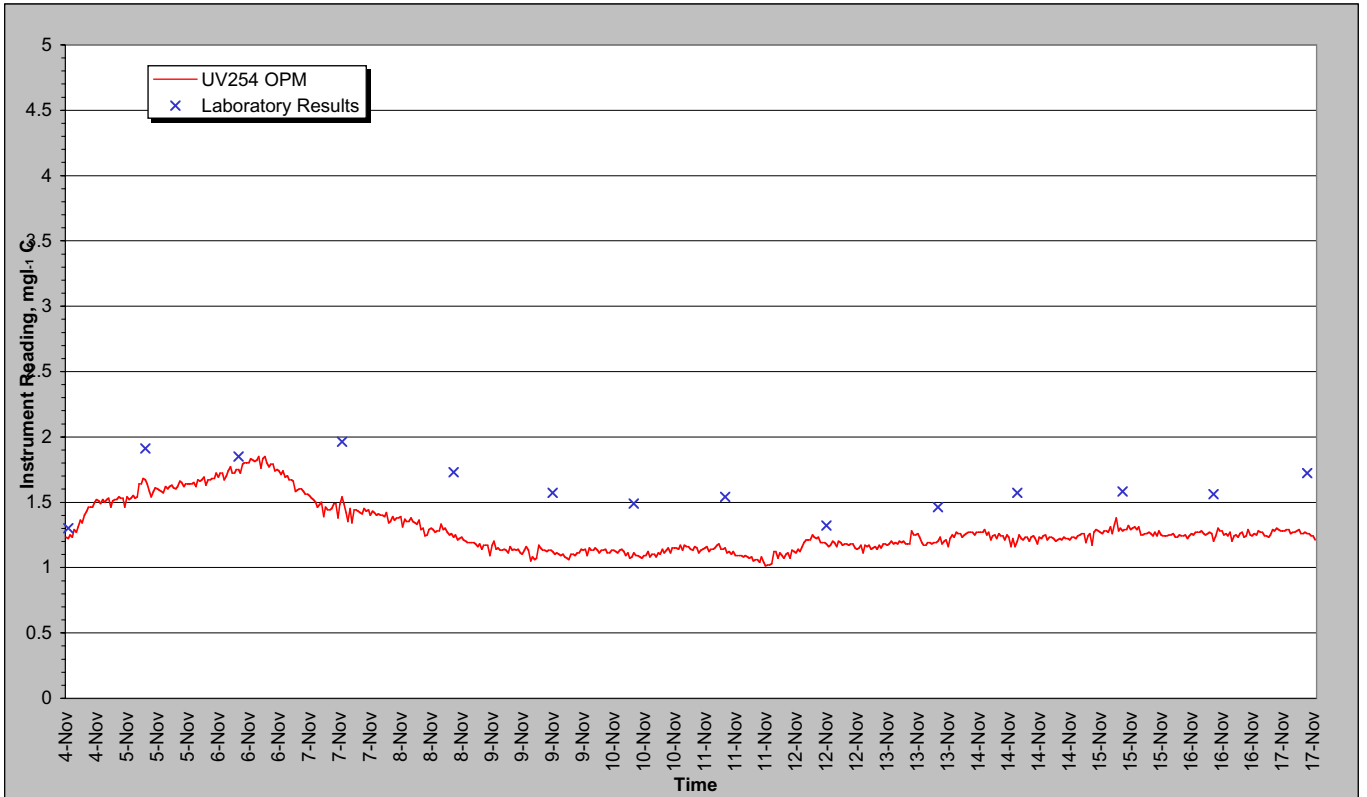


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Printed in UK (12.03)

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