

OI Analytical

Opportunity



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through

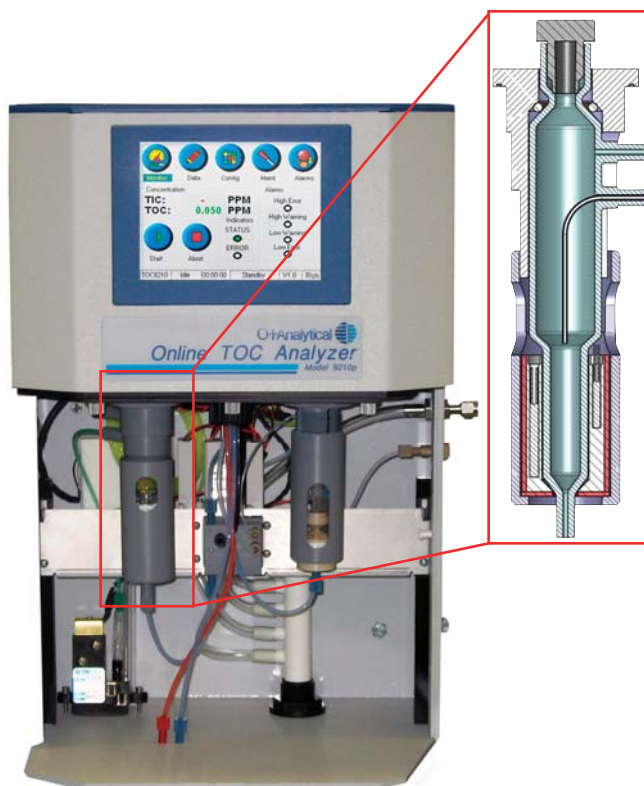
9210p On-Line TOC Analyzer

The 9210p is an on-line total organic carbon (TOC) analyzer that employs the heated sodium persulfate ($\text{Na}_2\text{S}_2\text{O}_8$) oxidation technique to monitor process water streams. Process streams with TOC levels ranging from 50-ppb to 25-ppm carbon can be monitored by this technique.

Operating Principle

In operation, samples are drawn into the reaction chamber of the 9210p at 3 to 7 minute intervals from a fill and spill sampling system. Phosphoric acid is introduced to the reaction chamber to sparge and remove the inorganic carbon (TIC) content. The TIC-free sample is then oxidized using heated sodium persulfate ($\text{Na}_2\text{S}_2\text{O}_8$) at a programmed temperature up to 100 °C. Organic compounds are oxidized and converted to CO_2 , which is measured by a solid state non-dispersive infrared (SSNDIR)* detector to calculate the TOC content. Results for each sample are shown on the analyzer's touchscreen display and can be output to a Supervisory Control and Data Acquisition (SCADA) system, PC via Ethernet connection, relay/alarm closure, or as a 4-20mA analog signal.

* Patent Pending



9210p On-line TOC Analyzer with Detail of Reaction Chamber

Principal Applications

- Monitoring drinking water treatment inlet and outlet streams
- Monitoring groundwater and surface water sources
- Monitoring rinse water for pharmaceutical cleaning validation
- Monitoring industrial process water
- Monitoring heat exchanger cooling water for leaks
- Monitoring Purified Water (PW) USP <643> used in pharmaceutical production