

Press Release

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New TOC-4200

Online TOC analysis meets new methods of communication

**Increasing environmental concern grows TOC applications /
eco mode operation and reduced maintenance costs /
New kits expand the scope of applications**

Shimadzu, one of the world leaders in analytical instrumentation, has released the new TOC-4200 online analyzer. It represents a new generation that offers the ability to use new modes of communication. The TOC-4200 covers features such as web-based monitoring and Modbus protocol for two-way digital communication, and it offers new functionality that provides a wider range of potential applications.

Increasing concern for the environment has grown the use of online TOC analyzers for environmental applications throughout the world, including emerging economies. The market has been expanding for TOC analyzers and other instruments that can measure organic pollutants. For example, online TOC technology is applied to reduce organic pollutant levels in factory effluents in terms of COD (chemical oxygen demand), and is increasingly being used to monitor water upstream from factory outflows.

New communication methods

Modbus two-way digital communication capability enables controlling two-way communication for multiple devices over a single integrated signal line, which also simplifies electrical wiring work. This allows connecting to two-way communication networks. The optional web-based monitoring function allows monitoring the measurement data or status of instruments from any network-connected computer in the world.

Eco mode operation and reduced maintenance costs

The eco mode reduces waste by only using carrier gas and operating the sampling pump when it is needed for measurements. Maintenance costs are cut by Shimadzu's unique multifunctional sample processing injection system reducing part count by integrating functions into an 8-port valve and syringe pump. Offline measurements can be performed by interrupting online measurements without stopping them. When offline measurements are finished, online measurements resume automatically. This enables more efficient offline measurements.

Reduces risk of measurement interruption

The TOC-4200 helps to prevent measurement interruption due to the running out of reagents or other consumables by providing notification through the communication methods such as screen and contact output when the replacement period approaches. Measurement data and calibration history can be stored in the instrument up to one year. Stored data can be removed via USB memory and valuable measurement data can be backed up inside the instrument.

Various kits expand scope of applications

An optional high-sensitivity kit enables measurements of samples with TOC concentrations below 1 mg C/L, such as underground water, public drinking water, or recovered deionized water from

semiconductor manufacturing. The high-salt sample combustion tube kit significantly increases the period between maintenance, by about 10 times, when measuring sea water or other samples containing high salt levels. Adding the TN measurement option permits total nitrogen (TN) measurement with catalytic combustion and chemiluminescence detection.



Image 1: New TOC-4200 online TOC analyzer

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