

## Total Organic Carbon (TOC) Analyzer

A resistivity meter reading 18.2 MΩ-cm ensures that charged species are absent from water. But what about neutral or weakly charged organics?

Introducing the Barnstead TOC analyzer.

By monitoring TOC and resistivity, you can be sure that the product water exceeds the requirements of any analytical or biological application.

In the DIamond system the TOC analyzer is positioned after all purification technologies, next to the resistivity cell. This provides accurate measurement of product-water quality before it is dispensed from the system.

### Principle of operation

Water from the DIamond passes through a filter (1) and enters the UV reactor (2). The resistivity of the water is measured initially. The high-intensity (185 and 254 nm) UV lamp oxidizes organic compounds present in the water, producing CO<sub>2</sub>. The solenoid (3) opens and moves the water across the conductivity cell (4), where resistivity is measured again. The difference in resistivity resulting from the increased CO<sub>2</sub> concentration is used to calculate the TOC value, which is then displayed.

### Specifications

**Volume per measurement:** 10–15 ml per reading dispensed to drain

**Cycle interval:** Approximately 3½ minute cycle between readings

**Control:** TOC monitoring can be turned on or off via system keypad

**Range:** 1–250 ppb

**Resolution:** 1 ppb

**Accuracy:** ± 1 ppb or 15% of reading, whichever is greater

**Water temperature range:** 4–40° C system (40–104° F).

**Ambient temperature range:** 10–40° C

