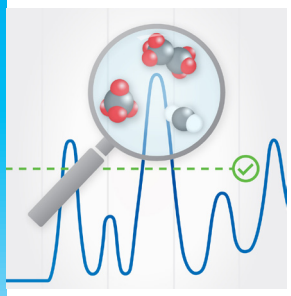
4000TOCe Sensor

On-line TOC Sensor with Flow Control

For Water/Steam Cycle Monitoring

Facilitates Water/Steam Cycle Health

Monitor TOC in condensate and make-up waters to prevent excess levels of organics from causing resin fouling, boiler and turbine corrosion, and reduced heat exchange efficiency.

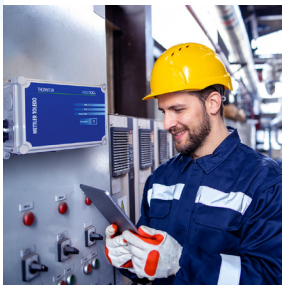


Real-time Continuous TOC Monitoring

The 4000TOCe TOC sensor with flow control uses proven ultraviolet oxidation with differential conductivity to effectively and continuously monitor total organic carbon concentrations. It is designed to maximize sample oxidation and minimize response times.

Simple Installation and Operation

The plug-and-measure sensor design of the 4000TOCe makes it easy to install and reduces initial setup time. Operations are simplified and operating costs reduced, as this TOC sensor requires no gases or reagents to be handled, stored or replaced.



Supports Regulatory Programs

The 4000TOCe sensor complies with the ASTM D5173 standard testing method for online TOC monitoring.

4000TOCe Sensor

Continuous, Fast and Reliable

The on-line 4000TOCe total organic carbon (TOC) sensor provides real-time monitoring of TOC levels in water systems. The wide dynamic operating range meets the needs of pure and ultrapure water applications, from reverse osmosis post-treatment to point-of-use. Continuous monitoring immediately indicates increasing TOC levels and allows for rapid response to excursions.

The 4000TOCe sensor combined with the menu-driven M300 transmitter provides an easy-to-use analytical package that enhances operational performance and offers extensive system diagnostics.

Discover the 4000TOCe, visit:

www.mt.com/4000TOCe

METTLER TOLEDO

4000TOCe Technical Data

Measurement	
Measurement range	0.05 - 3000 ppbC (µgC/L)
TOC accuracy	± 0.1 ppbC for TOC < 2.0 ppb (for water quality > 15 MΩ-cm [0.067 µS/cm]) ± 0.2 ppbC for TOC > 2.0 ppb and < 10.0 ppb (for water quality > 15 MΩ-cm [0.067 µS/cm]) ± 5% of measurement for TOC > 10.0 ppb (for water quality 0.5 to 18.2 MΩ-cm [2.0 to 0.055 µS/cm])
Repeatability	± 0.05 ppbC < 5 ppb, ± 1.0% > 5 ppb
Resolution	0.001 ppbC (µgC/L)
Analysis time	Continuous
Initial response time	< 60 seconds
Conductivity accuracy	± 2%,0.02-20 µS/cm; Constant Sensor*
Cell constant accuracy	± 2%
Temp sensor / accuracy	Pt1000 RTD, Class A / ± 0.25°C
Sample Water Requirements	
Temperature	0 to 100 °C **
Particle size	<100 micron
Minimum water quality	≥ 0.5 MΩ–cm (≤ 2 µS/cm), pH < 7.5 ***
Flow rate	20 mL/min
Pressure	4 to 200 psig (0.3 bar(g) to 13.6 bar(g)) at sample inlet connection ****
General Specifications	
Case dimensions	11" [280 mm] W × 7.4" [188 mm] H × 5.25" [133 mm] D
Weight	5.0 lb. (2.3 kg)
Enclosure material	Polycarbonate plastic, flame retardant, UV and chemical resistant, UL # E75645, Vol.1, Set 2, CSA #LR 49336
Enclosure rating	NEMA 4X, IP65 Industrial environment
Ambient temp & Humidity	5 to 50°C / 5 to 80% Humidity, non-condensing
Power requirements	100 - 130VAC or 200 - 240VAC, 50/60 Hz, 25W Maximum
Ratings/Approvals	CE Compliant, UL and cUL (CSA Standards) listed, Conductivity and temperature sensors traceable to NIST, ASTM D1125 and D5391. Meets ASTM D5173 Standard Test Method for On-Line Monitoring of Carbon Compounds in Water by UV Light Oxidation

* Readout in equivalent S/m ranges selectable at M300TOC
** Temperature above 70°C requires Sample Conditioning Coil (included)
*** For power plant cycle chemistry samples, pH may be adjusted by measurement after cation exchange.
**** Process pressure above 85 psig (5.9 bar) requires optional High Pressure Regulator p/n 58091552.
Specifications subject to change without notice.

www.mt.com
For more information

METTLER TOLEDO Group
Process Analytics Division
Local contact: www.mt.com/contacts

PA2089 Rev A

Quality certificate.
Development, production and testing to ISO 9001.

CE Compliant

UL listed
Meets Canadian Standards