

6000TOCi with ISM

Water Quality Confidence with Real-Time TOC Monitoring

Technical Data



Short description

The 6000TOCi is the latest edition to the METTLER TOLEDO Thornton On-line TOC Sensors. It's dependable and reliable design uses proven UV oxidation technology for real-time TOC monitoring of your critical water systems. Easily and efficiently monitor TOC levels from post RO waters to point-of-use with the fastest response time available, so you will never miss an excursion.

Constructed with the user in mind, its intuitive interface and flexible Plug and Measure design requires no reagents or chemicals for operation. With the simplicity of a sensor but the power of an analyzer, the 6000TOCi meets the highest industry requirements of pharmaceutical, power cogeneration and microelectronics.

Features

- On-line continuous measurement
- Peak, Average and Rate-of-Change TOC measurement for compliance monitoring
- Intelligent Sensor Management (ISM) Interface
- Intelligent diagnostics with iMonitor
- USB printer capable
- USB for data logging
- Automated flow control
- At-a-glance LED status
- Universal Power Ballast
- Compatible with M800 multi-parameter transmitter
- Install up to four TOC sensors to one M800 transmitter
- Semi-automated Calibration and System Suitability Test
- Meets USP <643>, <645>, EP 2.2.44, Ch.P and JP requirements for the Pharmaceutical Industry

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METTLER TOLEDO

TOC Sensor

Measurement parameters	0.05 - 2000 ppbC ($\mu\text{gC/L}$)
Accuracy	± 0.1 ppbC for TOC < 2.0 ppbC (for water quality > 15 M Ω -cm [0.067 $\mu\text{S/cm}$]) ± 0.2 ppbC for TOC > 2.0 ppbC and < 10.0 ppbC (for water quality > 15 M Ω -cm [0.067 $\mu\text{S/cm}$]) $\pm 5\%$ of measurement for TOC > 10.0 ppbC (for water quality 0.5 to 18.2 M Ω -cm [2.0 to 0.055 $\mu\text{S/cm}$])
Repeatability	± 0.05 ppbC < 5 ppbC, $\pm 1.0\%$ > 5 ppbC
Resolution	0.001 ppbC ($\mu\text{gC/L}$)
Analysis Time	Continuous
Initial Response Time	< 60 seconds
Update Rate	1 second
Limit of Detection	0.025 ppbC

Conductivity Sensor

Conductivity Accuracy	$\pm 2\%$, 0.02-20 $\mu\text{S/cm}$ $\pm 3\%$, 20-100 $\mu\text{S/cm}$ *
Cell Constant Accuracy	$\pm 2\%$
Temperature Sensor	Pt1000 RTD, Class A
Temperature Accuracy	$\pm 0.25^\circ\text{C}$

Sample Water Requirements

Temperature	0 to 100 $^\circ\text{C}$ **
Particle Size	< 100 micron
Minimum Water Quality	≥ 0.5 M Ω -cm (≤ 2 $\mu\text{S/cm}$), pH < 7.5 ***
Flow Rate	> 8.5 mL/min
Pressure	4 to 200 psig (0.3 bar(g) to 13.6 bar(g)) at sample inlet connection ****

General Specifications

Case Dimensions	11.9" [302.75 mm] W x 9" [229.8 mm] H x 5.7" [144.7 mm] D
Weight	11.0 lb. (5 kg)
Enclosure Rating	IP55
Enclosure Material	Ignition Resistant Polystyrene Resin meeting UL 94V-0, Painted Aluminum
Ambient Temperature/Humidity Rating	5 to 50 $^\circ\text{C}$ / 5 to 80% Humidity, non-condensing
Power Requirements	100 - 240VAC, 50 - 60 Hz, 25W
Local Indicators	Four LED lights for Fault, Error, Sensor Status and UV Lamp ON
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

Installation/Power/Enclosure

Inlet Connection	0.125" [3 mm] O.D. (6' [2 m] FDA compliant PTFE tubing supplied)
Outlet Connection	0.125" [3 mm] O.D. (6.5" [165 mm] fixed 316SS tube provided)
Inlet Filter	316SS, inline 60 micron
Wetted Parts	316SS/Quartz/PEEK/Titanium/PTFE/EPDM
Wall Mount	Standard, mounting bracket provided
Maximum Sensor Distance	300ft [91 m]

* Readout in equivalent S/m ranges selectable at M800

** Temperature above 70 $^\circ\text{C}$ 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(g)) requires optional High Pressure Regulator p/n 58 091 552. Specifications subject to change without notice.

Ordering Information

Sensor	Order no.
6000TOCi Sensor, 100-240VAC 50-60Hz	30 472 150
6000TOCi Sensor, Low ppb calibration, 100-240VAC 50-60Hz	30 472 151

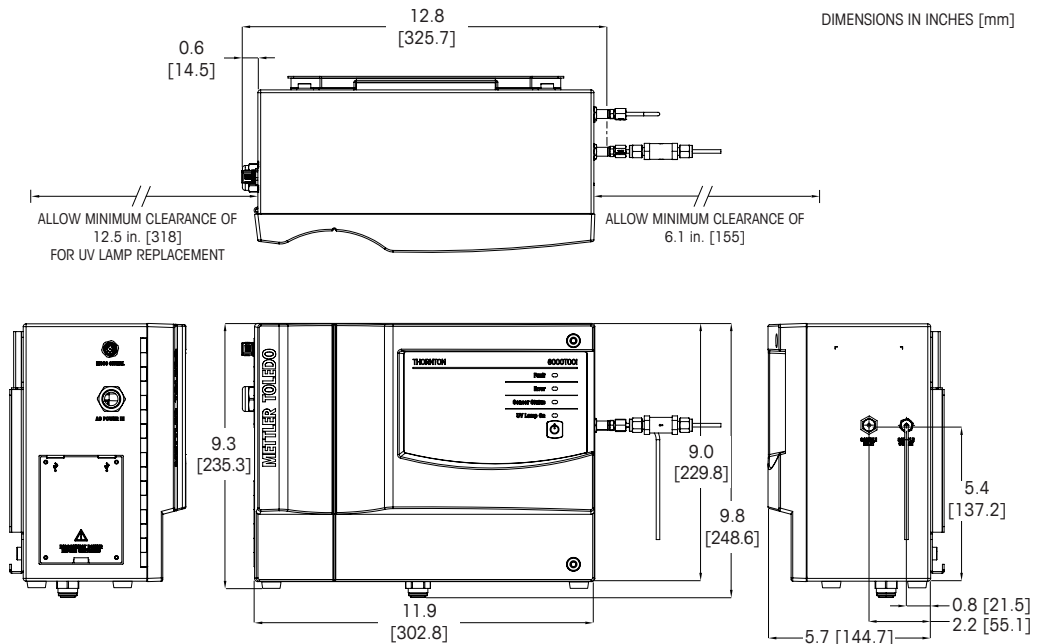
Transmitter	Order no.
M800 Water 2-channel	58 000 802
M800 Water 4-channel	58 000 804
M800 DP 2-channel	58 000 806

Accessories	Order no.
Pump Module, 6000TOCi	30 472 152
Filter Assembly, High Capacity	58 091 550
High Pressure Regulator	58 091 552

Accessories - Cords	Order no.
Patch Cord, 1 ft. (0.3 m)	58 080 270
Patch Cord, 5 ft. (1.5 m)	58 080 271
Patch Cord, 10 ft. (3.0 m)	58 080 272
Patch Cord, 15 ft. (4.5 m)	58 080 273
Patch Cord, 25 ft. (7.6 m)	58 080 274
Patch Cord, 50 ft. (15.2 m)	58 080 275
Patch Cord, 100 ft. (30.5 m)	58 080 276
Patch Cord, 150 ft. (45.7 m)	58 080 277
Patch Cord, 200 ft. (61.0 m)	58 080 278
Patch Cord, 300 ft. (91.4 m)	58 080 279

Consumables & Spare Parts	Order no.
Replacement UV Lamp	58 079 513
Calibration Standards	30 472 083
System Suitability Test Standards	30 472 084
Combined Calibration and System Suitability Test Standards	30 472 085
Calibration Standards for Extended Range Calibration	30 472 086
Combined Calibration and System Suitability Test Standards for Extended Range Calibration	30 472 087
Fuse, 1.25A, Sensor PCB	58 091 519
Filter Element, High Capacity	58 091 551

Dimension drawings



Trademark Information

ISM is a registered trademark of the Mettler-Toledo Group in Switzerland, Brazil, USA, China, European Union, South Korea, Russia and Singapore.

For addresses of METTLER TOLEDO Market Organizations please go to:
www.mt.com/pro-MOs



Designed, produced
and controlled according to
ISO 9001

METTLER TOLEDO Group
Process Analytics Division
Local contact: www.mt.com/pro-MOs

Subject to technical changes
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