QBD1200 LABORATORY TOTAL ORGANIC CARBON ANALYSER

Applications

- Drinking water
- Semiconductor
- Power
- Clear samples TOC <100 mg/L

The Hach QBD1200 takes the pain out of TOC analysis and lowers your total cost of ownership.

Want to trust your TOC results?

Stop throwing away your first replicate. The QBD1200 has 95% less carryover. Inconsistent results? Trust 2% standard deviation at 50 mg/L and 3% at 100 µg/L.

Want to lower your total cost?

Stop wasting money. Save 60% of your reagent costs. Say goodbye to frequent maintenance. Enjoy annual service vs. monthly.

Want to simplify your analysis process?

Tired of complicated setup? Begin testing with 90% fewer steps.

Want to save time?

Save time calibrating. Only 90 minutes for a calibration routine.

HACH®
Be Right™

Technical Data*

Measuring range	0.4 µg/L - 100 mg/L
Precision	3% or 3 µg/L, whichever is greater
Accuracy	± 2 %
Sample to sample carryover	< 0.2%
Particle size	up to 100 µm
Sample homogenisation	Available with Autosampler
Overload recovery	1 measurement
Inorganic carbon handling	No extra inorganic Carbon removal module needed
Oxidation method	UV lamp + Hot Persulfate
Carrier gas options	CO_2 free air, O_2, or N_2
Data logger	PDF, CSV

Display type	10.4 inch high-res colour touch screen
Calibration method	Automated routine: 18 point calibration using KHP (6 concentrations, 3 replicates each)
Calibration interval	1 year; time to calibrate 90 minutes
Compliance certifications	ISO 8245 and DIN EN 1484; USP <643> (including sterile water SST), JP-16 <2.59>, EP <2.2.44>, IP, CP, KP, US EPA 415.3 and Standard Method 5310c
Power requirements (Voltage)	100/240 V AC
Power requirements (Hz)	47 - 63 Hz
Dimensions (H x W x D)	410 mm x 320 mm x 507 mm

**Subject to change without notice.*

Principle of Operation

TIC

Acid is added to lower the pH so that inorganic carbon is sparged off as CO_2. This is measured to ensure Total Inorganic Carbon (TIC) is not carried over into the TOC.

Oxidation

Convert TOC into CO_2 gas. In presence of UV light and powerful oxidiser $(NH_4)_2S_2O_8$, organic carbon species are converted into CO_2 gas by oxidation. Carrier gas is blown through the reaction chamber to push all CO_2 gas through NDIR detector.

TOC

CO_2 gas is detected as it goes through NDIR detector and TOC is quantified by integrating the area under the curve.
TOC is then calculated, based on instrument calibration, by converting the CO_2 gas signal (area under the curve) into TOC.

Order Information

QBD1200 Instrument

9450000 QBD1200 Laboratory TOC Analyser

QBD1200 Autosampler

9467100 QBD1200 Autosampler

QBD1200 Reagent/Standards

9459400 One reagent stock solution, 500 mL
9459500 KHP calibration solution, 5 mg/L C
9459600 SDBS Validation kit
9459700 USP System suitability kit (500 µg/L)
9459800 USP System suitability kit (8 mg/L)
9459900 Specificity test kit
9460000 Robustness test kit
9460100 Validation protocol kit

QBD1200 Instrument and Autosampler Replacement Items

9449900 Syringe replacement kit
9449300 Ozone destructor replacement kit
9459100 Replacement tubing kit
9449200 UV reactor replacement
9464200 Reagent bottle/custom cap kit
9454300 QBD1200 power supply
9467200 Autosamper tray
9454400 Extender Tool for QBD1200 Autosampler tube connection
9467300 QBD1200 Autosampler power supply
9467400 QBD1200 Autosampler needle sleeve
SP6790 Autosampler septum piercing needle

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