



BLUE DRAGON
TECHNOLOGY

MODEL C680

HIGH-TEMPERATURE COMBUSTION TOC ANALYZER

Accurate TOC, TC, IC, and NPOC
Measurement for Water Quality Testing

The Blue Dragon Model C680 uses high-temperature catalytic combustion and NDIR detection to measure organic carbon in water samples with high accuracy and repeatability. Designed for laboratory water quality testing, it supports TOC, TC, IC, and NPOC analysis across environmental, pharmaceutical, industrial, and research applications.



WHY CHOOSE THE MODEL C680?



High-Temperature Combustion

680°C catalytic oxidation for reliable carbon conversion.



NDIR Detection

Accurate CO₂ measurement for stable analytical results.



TOC / TC / IC / NPOC

Multiple analysis modes for flexible water testing.



Wide Measurement Range

Up to 100,000 mg/L, application-dependent.



Strong Repeatability

≤3% repeatability with R² ≥ 99.9% linearity.



Laboratory-Friendly Operation

Touchscreen control, calibration, historical data, and print-ready records.

APPLICATIONS



Environmental Monitoring

Surface water, groundwater, wastewater



Water Utilities & Sewage

Raw water, treated water, municipal systems



Pharmaceutical & Food

Purified water, WFI, cleaning wastewater



Chemical & Power

Cooling water, boiler feedwater, process wastewater



Industrial Wastewater

Complex and high-load water samples



Research & Testing Labs

Water treatment studies and third-party analysis

HOW IT WORKS



Sample

Water sample introduced



TC / IC Injection

Precise injection of the sample



680°C Combustion / Acidification

High-temperature oxidation and acidification



CO₂ Formation

Organic carbon converted to CO₂



Gas Purification

Removal of moisture and interfering gases



NDIR Detection

CO₂ measured by NDIR



TOC = TC - IC

TOC calculated from TC minus IC

TECHNICAL SPECIFICATIONS

Measurement Principle	High-temperature catalytic combustion + NDIR
Measurement Modes	TOC, TC, IC, NPOC
Combustion Furnace	680–1000°C
Injection Volume	10–500 µL
Measurement Range	Up to 100,000 mg/L, application-dependent
Detection Limit	≤0.5 mg/L
Repeatability	≤3%
Linearity	R ² ≥99.9%
Response Time	4–10 minutes
Sample Injection	Manual injection
Carrier Gas	High-purity oxygen ≥99.99%
Power Supply	220–240 VAC, 50 Hz



BUILT FOR WATER QUALITY ANALYSIS

- ✓ Reliable high-temperature oxidation
- ✓ Precise CO₂ detection by NDIR
- ✓ Broad applicability across water matrices
- ✓ Stable data and excellent repeatability
- ✓ Designed for laboratories and quality control



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