

# 9220 TOC

ONLINE TOTAL ORGANIC CARBON ANALYZER



**EPA**  
Approved  
Methodology

Suitable for drinking  
water reporting in the  
United States.

For more information visit:  
**[YSI.com/9220](http://YSI.com/9220)**

## Reliable data for regulatory compliance and process control

The **9220 Online TOC** Analyzer, developed from over 50 years of TOC experience, provides unmatched performance, reliability, ease of use, and low cost of ownership to meet your specific water quality standards.



**EPA compliant** – Compliant with US EPA regulations 415.3 (source and drinking water) and Standard Method 5310C (wastewater).



**Improved process control** – Optimize coagulation and flocculation of raw water and maintain total organic carbon removal targets.



**Multi-stream capability** – Monitor up to four process streams on a single analyzer at no additional cost.



**Robust Design** – Housed in a waterproof enclosure to operate in the harshest conditions.



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# 9220 Online TOC TOTAL ORGANIC CARBON ANALYZER SPECIFICATIONS

SPEC SHEET XA00257

Performance	
Operating Principle	Heated sodium persulfate oxidation
Measurement Technique	Non-dispersive infrared (NDIR) detection
Regulatory Method Compliance	USEPA 415.3 (source water & drinking water) SM 5310C (water & wastewater)
Measurement Range	0 to 25 ppm (standard); adjustable up to 100 ppm
Measurement Accuracy	±5%
Measurement Precision	2% RSD
Limit of Detection	0.015 ppm
Sample Processing/Analysis Time	5 to 9 minute intervals
Sample Processing Ports	6 (included)
Sample Processing Valve Controls	4 (included)
Sample Processing Valves	Up to 4 (optional)
General	
Operator Interface	7" WSVGA display with a capacitive touchscreen (Windows® CE-based)
External Dimensions (Enclosure)	58.5cm H x 55.9cm W x 25.4cm D (23in H x 22in W x 10in D)
Mounting Dimensions (Panel w/ reagent tray)	113.7cm H x 55.9cm W x 28cm D (44.75in H x 22in x 11in D)
Certifications	IEC 61326-1, IEC 61010-1, cETLus (ETL and CSA Standards)
Instrument Enclosure Certifications	IP66; NEMA 4
Weight	Analyzer: 16.6 kg (36.5 lbs) Analyzer, panel w/ reagent tray, PGM, and full reagent containers: 44.4 kg (98 lbs)
Instrument Warranty	2 years
Reagents and Requirements	
Reagents Required	10% sodium persulfate, 5% phosphoric acid, DI water
Reagent Containers	5L high-density polyurethane
Reagent Lifetime (Liquid)	Nominally 30 days at 77 °F (25 °C); 90 days at temperatures less than 39 °F (4 °C)
Sample and Gas Requirements	
Sample Flow Rate to Sample Inlet Device	50 to 1,000 mL/min when using Sample Inlet Device
Inlet Pressure	1 to 20 psig with Sample Inlet Device
Sample Temperature Range	41 to 113 °F (5 to 45 °C)
Gas Requirements (internally generated)	Process Gas Module (included); Consumption = < 100 ml/min. CO2 free air
Power and Communication	
Power Requirements	100 to 240 VAC, 70VA, 50/60 Hz
Input Relays	2 (remote start, remote stop); 5A/30 VDC Max - potential free contact closure
Output Relays	2 (system alarm, sample alarm); 5A/30 VDC Max - potential free contact closure
Analog Outputs	4 (4 to 20 mA; user-configurable concentrations)
Digital Outputs	RS-485/422 Modbus RTU protocol or ASCII standard
Data Export	To PC via USB memory stick (Microsoft® Excel®-ready .csv file format)
Environmental	
Operating Temperature Range	41 to 113 °F (5 to 45 °C)
Humidity	Up to 90% humidity (non-condensing)
Storage Temperature Range	41 to 113 °F (5 to 45 °C)

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