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Analytical®
Technologies Limited

TOC-3600S Plus

Online Total Organic Carbon Analyzer

EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

Introduction:

The TOC-3600S Plus Total Organic Carbon Analyzer, independently developed and manufactured, It is an analytical instrument for measuring total organic carbon concentration in water samples. It can detect TOC concentrations ranging from 0.1μg/L to 1500μg/L, offering high sensitivity, accuracy, and excellent stability.

Features:

- High detection accuracy and low detection limit
- Touchscreen design and user-friendly interface for simple and convenient operation
- Conductivity temperature compensation technology improves detection accuracy
- No carrier gas or reagents required, simplifying maintenance and reducing costs
- A separate system suitability test interface provides more user-friendly operation
- Real-time visualization of detection curves for intuitive operation
- Large data storage for easy query, including daily data query
- UV lamp life countdown for convenient lamp replacement and maintenance
- Over-limit alarm output
- External 4-20mA communication capability
- Optional auto-calibration kit for one-click automatic calibration and system suitability testing

Standard:

- USP <643> Total Organic Carbon (TOC) Method
- Determination of Total Organic Carbon in Water for Injection

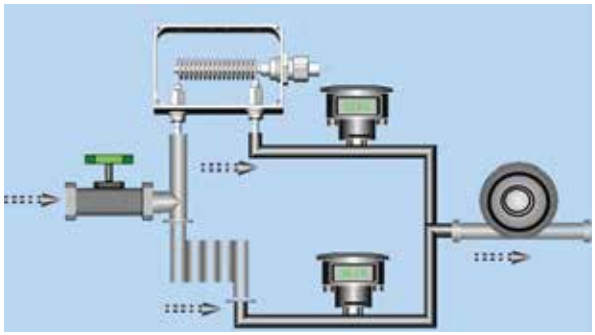
Application range:

- Online TOC monitoring of water systems in the pharmaceutical industry;
- Online monitoring of ultrapure water preparation systems and wafer processing in the semiconductor industry;
- Online monitoring of deionized water preparation processes in power plants

Main components of the equipment

Working principle:

The TOC-3600 Total Organic Carbon Analyzer uses UV light to oxidize a slow-flowing water sample, determining the TOC value by measuring the change in conductivity before and after oxidation.The water sample,driven by a peristaltic pump, enters a Teflon tubing,passing through the first electrode,a quartz spiral tube,and the second electrode, before exiting the waste line.During testing, the conductivity values of two sensors are simultaneously collected, resulting in G1 and G2.Organic matter in the water sample, under the influence of the dual UV lamps, produces CO2, increasing conductivity. The difference (G2 - G1) is used to determine the corresponding total organic carbon.



Schematic

Technical Parameters:

Project	Parameter	Project	Parameter
TOC detection range	0.1 μg/L～1500.0 μg/L	Response time	Within 6 minutes
Conductivity detection range	0.055-6.000μS/cm	Sample temperature	0-100℃
Analysis time	The shortest analysis interval is 1 minute (can be set arbitrarily)	TOC detection accuracy	0.1 μg/L
Accuracy error	±5%	Zero drift	±2%/D
Repeatability error	≤2%	Range drift	±2%/D
Ambient temperature	0-60℃±5℃/D	Power supply	220±22V AC 50±1Hz
Relative humidity	≤90%	Power	60W
Size	30cm×20cm×14cm	Weight	7.6kg

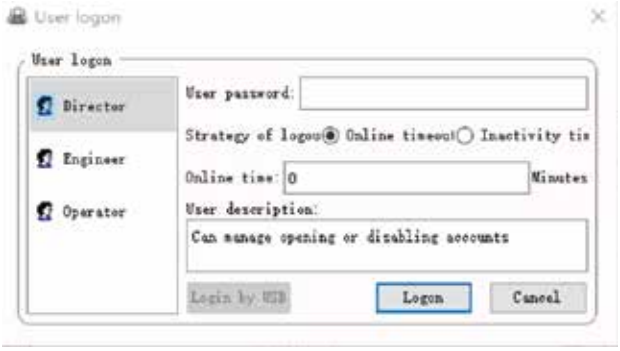
Software interface:

The software presets three levels of user permissions to ensure operational security and data integrity:

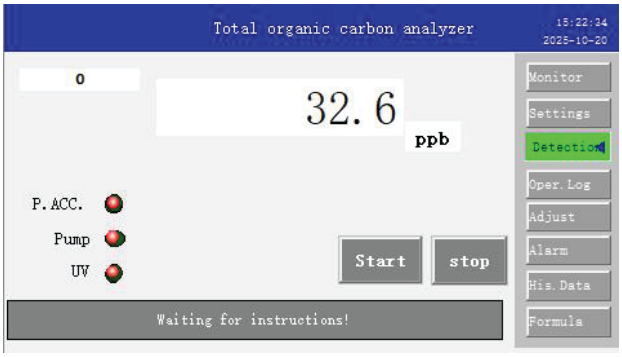
-Director

- Engineer

- Operator

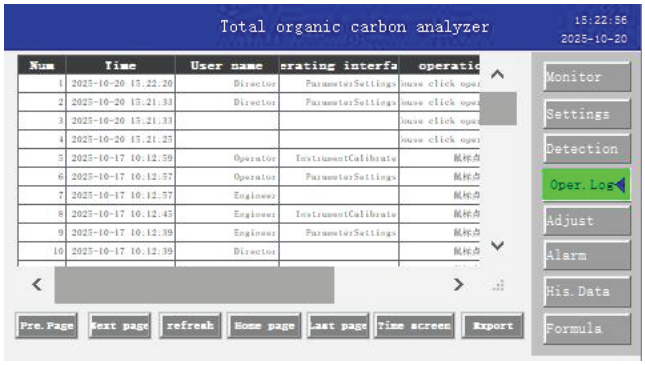


Operation interface: Clear and simple operation interface, one-click start



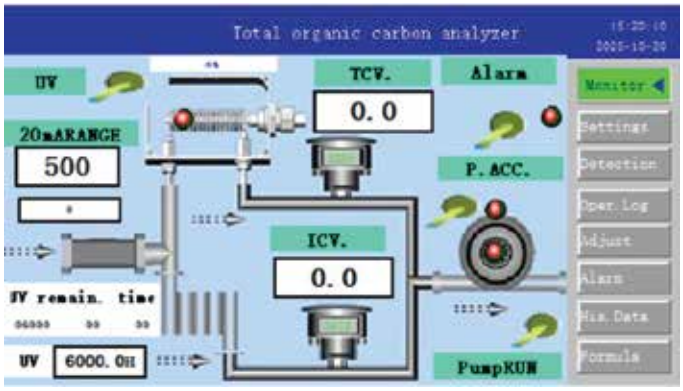
Operation Log

- Function: Records all user operations (login, calibration, testing, etc.).
- Export: Insert a FAT32-formatted USB drive, select a time range, and export to a file.



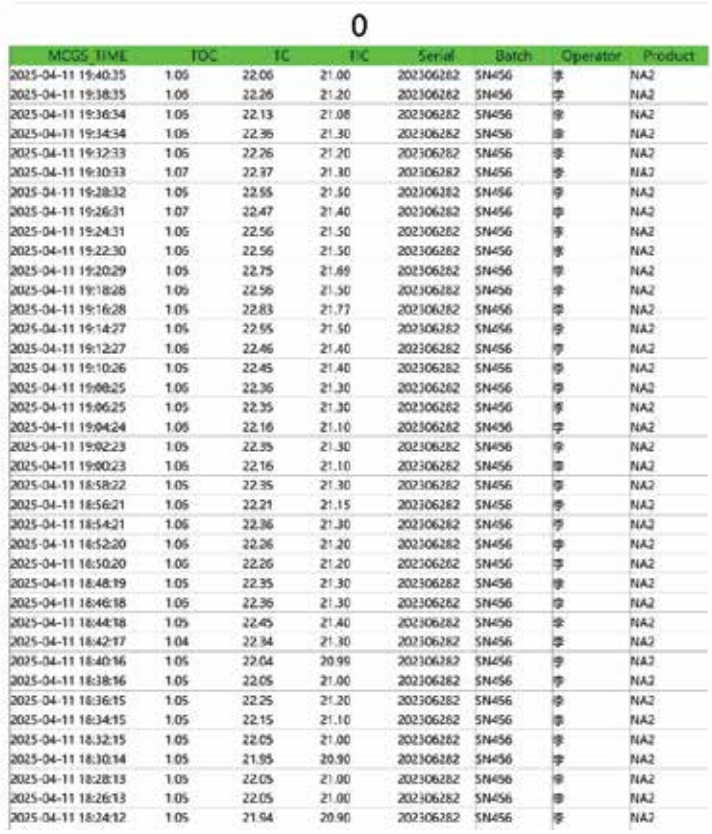
System Self-Check Screen

- Ensures instrument hardware (UV lamp, pump, communication module, etc.) is functioning properly
- Displays consumable operating hours, enabling timely replacement of consumables.



Data Report:

The system allows for viewing test data and supports copying to a USB drive.



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MCGS_TIME	TOC	TC	TIC	Serial	Batch	Operator	Product
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2025-04-11 19:38:35	1.05	22.26	21.20	202306282	SN456	李	NA2
2025-04-11 19:36:34	1.05	22.13	21.08	202306282	SN456	李	NA2
2025-04-11 19:34:34	1.05	22.36	21.30	202306282	SN456	李	NA2
2025-04-11 19:32:33	1.05	22.26	21.20	202306282	SN456	李	NA2
2025-04-11 19:30:33	1.07	22.37	21.30	202306282	SN456	李	NA2
2025-04-11 19:28:32	1.05	22.55	21.50	202306282	SN456	李	NA2
2025-04-11 19:26:31	1.07	22.47	21.40	202306282	SN456	李	NA2
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2025-04-11 18:26:13	1.05	22.05	21.00	202306282	SN456	李	NA2
2025-04-11 18:24:12	1.05	21.94	20.90	202306282	SN456	李	NA2

Consumables List:

UV lamp	UV600	5000h
Peristaltic pump tubing	----	1 year
Calibration reagents	Zero point calibration water, sucrose stock solution,1,4-benzoquinone stock solution (1 bottle each)	During calibration

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HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

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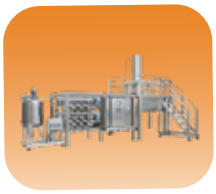

Production HPLC

HPLC

Column

DLS

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Regulatory compliances

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