

# TOC/DOC FIELD METER

OP SERIES



## FEATURES & BENEFITS

- Simple and affordable TOC/DOC testing
- Easy to use with fast 90 second warm up time
- Accurate and precise results within seconds
- Patented technology provides superior measurement performance
- No zeroing to DI water before each test
- Rugged for field testing with optional Battery Pack
- No reagents

MUNICIPAL DRINKING WATER  
MUNICIPAL WASTEWATER  
INDUSTRIAL PROCESS WATER  
INDUSTRIAL WASTEWATER

WATER QUALITY  
MONITORING  
SOLUTIONS

## OVERVIEW

The portable TOC/DOC Field Meter from Real Tech provides simple and affordable testing of organic matter in water or wastewater. Operation is straight forward with accurate and repeatable results obtained in seconds. An optional Battery Pack allows for sampling anywhere, anytime giving the user true portability.

## MEASUREMENT PRINCIPLE

Real Tech's innovative TOC/DOC meter provides superior measurement performance across multiple wavelengths of light using UV and visible LEDs. Many compounds absorb light in the UV-VIS spectrum including organic compounds. Absorbance data at specific wavelengths of interest can then be related and approximated to TOC and DOC, therefore providing a monitoring solution for these critically important water quality parameters without the use of hazardous reagents or waiting for lengthy lab turnaround times. Process control improvements can then be implemented when it matters the most, providing cost savings, optimization and event detection, thus improving operators' ability to meet water quality goals.

Since correlations between absorbance and traditional TOC and DOC vary depending on the type of organic compounds that are making up these aggregate parameters, it is important that the Real TOC/DOC Field Meter utilizes a correlation, also known as a calibration model, that matches the site-specific water characteristics to ensure most accurate results.

## LIQUID AI® CUSTOM CALIBRATION ENABLED

Real Tech's TOC/DOC meter comes ready with several starter calibrations pre-programmed onto the meter. Access to additional starter calibration models can be obtained by connecting via USB to a PC with Real Tech's Liquid Ai® Data Management PC Software Program. In addition to starter calibration models, site-specific calibration models can be created and loaded onto the TOC/DOC meter using the software. In the field, measurements can be taken using any of the calibration models previously loaded onto the TOC/DOC meter. Users can also build upon their site-specific calibrations over time to further increase the accuracy and robustness of measurements for any given monitoring site.

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INC.

## METER MODELS & RANGE

OP series models include TOC/DOC Field Meter, sampling cuvette, wall adapter, car adapter and USB connection cable.

Measurement ranges are estimations based on previous field data, and may vary based on plant specific details. Full measurement range may be greater than the ranges stated in the table below, although accuracy may be significantly reduced outside these stated ranges.

Measurement ranges can be extended by sample dilution. Please contact Real Tech for your application specific demands.

### MUNICIPAL

PRODUCT#	PATH LENGTH	TOC/DOC (mg/L)
OP100-M	2 mm	0 - 875
OP200-M	10 mm	0 - 175

### DAIRY

PRODUCT#	PATH LENGTH	TOC/DOC (mg/L)
OP100-D	2 mm	0 - 3125
OP200-D	10 mm	0 - 625

### BREWERY

PRODUCT#	PATH LENGTH	TOC/DOC (mg/L)
OP100-B	2 mm	0 - 3000
OP200-B	10 mm	0 - 600

### PULP & PAPER

PRODUCT#	PATH LENGTH	TOC/DOC (mg/L)
OP100-PP	2 mm	0 - 250
OP200-PP	10 mm	0 - 50

### FOOD & BEVERAGE\*

PRODUCT#	PATH LENGTH	TOC/DOC (mg/L)
OP100-FB	2 mm	0 - 3000
OP200-FB	10 mm	0 - 600

\* Food & Beverage meter requires use with Liquid Ai® Data Management PC Software to build site-specific calibrations for each desired monitoring location due to the wide variation of products and compounds within the wastewater.

\*\* Stated ranges are approximate, dependent on site and application - contact Real Tech to confirm model selection

## ACCESSORIES

PRODUCT #	NAME	DESCRIPTION
UVT-068010	Battery Pack	Factory installed battery pack upgrade for portable series meters, comes with battery charger
UVT-095020	Cuvette - 2 mm	2 mm path length quartz cuvette for OP series
UVT-045010	Cuvette - 10 mm	10 mm path length quartz cuvette for OP series

\* Additional range capability can be achieved with purchase of additional sample cuvettes, however Liquid Ai® Data Management PC Software is required for use with multiple path lengths with one meter.

## SOFTWARE

PRODUCT #	NAME	DESCRIPTION
LAI-214001	Liquid Ai® Data Management PC Software - Annual	12 month software subscription
LAI-214002	Liquid Ai® Data Management PC Software - Monthly	1 month software subscription

## SPECIFICATIONS

CHARACTERISTIC	TECHNICAL DATA
Path Length	2, 10 mm
Parameter	TOC, DOC
Range	Depends on model selected, refer to range chart
Units	mg/L
Calibration	Calibration memory prevents the need to re-zero to DI water
Self-Diagnostics	Notification of system failure
Display	4 line x 20 character backlit LCD
Wavelengths	Multiple wavelengths
Light Source	UV/Vis LEDs
Dimensions	8.7"L x 7.5"W x 3.9"H
Enclosure	Rugged, compact, watertight and dustproof
Electrical	12VDC 1A wall adapter (accepts 90-250 VAC 50/60Hz). 12VDC car adapter
Storage Temp.	-20 to 60°C (-4 to 140°F)
Operating Temp.	0 to 45°C (32 to 113°F)
Wetted Materials	Quartz
Weight	4 lb
Technology	Split-Sense
Warranty	2-year limited warranty

\* Technical Specifications are subject to change without notice.

\* Results cannot be used for compliance, only as an indicator value of organic loading for process control support.

\* Liquid Ai® Data Management Software is required for data and sample management, and to build site-specific calibration models to improve accuracy and reliability at any given monitoring location.

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