

HF scientific, inc.

Clean Water Through Innovative Technology

MicroTOL ONLINE TURBIDIMETER



Leading edge Microprocessor Technology combined with 30 years of optical measurement expertise has allowed HF scientific to become the leader in regulatory reporting turbidimeters. The HF MicroTOL OnLine Turbidimeter has been specifically designed to meet regulations of the EPA and ISO 7027. Features include fast and easy calibration, verification in seconds, low maintenance, fail safe design which ensures the instrument is always reading accurately, bubble rejection system, optional autoclean ultrasonic cleaning system, and a data acquisition software system that allows logging and data storage for multiple turbidimeters.

MicroTOL Online Turbidimeter

Specifications

Range:	0 - 1000 NTU
Measurement Principle:	Nephelometry (90)
Accuracy:	2% of reading or ± 0.015 Below 40 NTU 5% of reading above 40 NTU
Resolution:	0.0001 Selectable
Response Time:	Adjustable (5 to 500 seconds) 0 - 1000 NTU
Standard Outputs:	4-20 ma Galvanic Isolated or RS-485
RS-485 Protocols:	Modbus, HF Simplebus, HF Online Interface
User Alarms:	2 User Selectable high/low Alarms
Light Source:	White Light or Infrared (850nm LED)
Operating Temperature:	0° - 50° (32° to 122°F)
Input Pressure:	1 - 200psi (built in regulator set at 15psi)
Enclosure:	Nema 4X, IP66
Display:	Multiline Custom Backlight LCD
Certifications:	USEPA, ISO 7027, CE Approved ETL Listed to UL 3111-1 and ETL Certified to CSA 22.2 No. 1010-1-92

Ordering Information

Cat. No.	MicroTOL Model	Range in NTU	Ultrasonic Autoclean	USEPA Method 180.1	ISO 7027
20053	#2 White Light	0 - 1000		X	
20054	#2 Infrared	0 - 1000			X
20055	#3 White Light	0 - 100	X	X	
20056	#3 Infrared	0 - 100	X		X
20063	#4 White Light	0 - 1000	X	X	
20064	#4 Infrared	0 - 1000	X		X

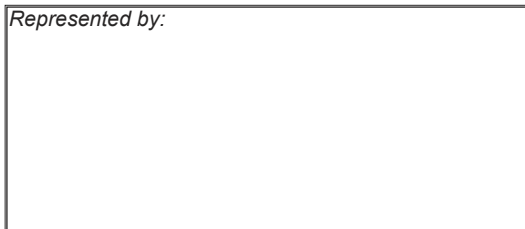
All units delivered fully calibrated and include 4-20ma, backlight display, RS-485/Modbus, inline pressure regulator, desiccant, power supply and quick start guide.

Accessories

19783	HF Online Windows™ Software for data collection & reporting
19609	Remote Display for an additional digital readout.
29953	PRIMEIME Primary Calibration Kit, Low Range, 0.02 & 10 & 100 NTU for TOL 3
29957	PRIMEIME Primary Calibration Kit, Full Range, 0.02, 10, & 1000 NTU
20779S	Power Cord - 120 VAC / 240 VAC

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Represented by:



Standard Features

- **Fast and Easy Calibration**
Verification in seconds while a complete primary calibration can be completed in less that 5 seconds. *(see figure 2)
- **Low Volume Sample Chamber**
Low volume sample chamber (30 ml) reduces calibration costs and provides quick response times.
- **Low Maintenance Fail Safe Design**
Simple Modular Design. Easy to Use & Service
- **Bubble Rejection System**
Eliminates bubbles without delaying the response time.
- **Affordable**
Modular microprocessor based technology ensures high quality at the industry's lowest price.

Optional Features

- **AutoClean**
Ultrasonic cleaning allows for the first EPA Accepted Automatic Cleaning OnLine Turbidimeter.
- **OnLine Software**
Allows logging, comparisons, graphs and data acquisition for up to 256 online turbidimeters into a PC.
- **RS-485 with Modbus**
Digitally connect with high speed Modbus communications.
- **Remote Display**
Allows remote monitoring up to 500 feet away.



Ultrasonic Cleaning System

Keeps the optical chamber clean in finished or raw water applications.



HF Online software



*figure 2
Easy Calibration