

#### A Watts Water Technologies Company

# MicrolOL 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 **M**icroIOL OnLine Turbidimeter has been specifically designed to meet regulations of the EPA 180.1 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.

# **Standard Features**

#### Fast and Easy Calibration

Verification in seconds while a complete primary calibration can be completed in less that 5 minutes. \*(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 EPAAccepted Automatic Cleaning OnLine Turbidimeter.

OnLine Software

Allows logging, comparisons, graphs and data acquisition for multiple online turbidimeters into a PC.

Remote Display

Allows remote monitoring up to 500 feet away.

# **Ordering Information**

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

All units delivered fully calibrated and include 4-20ma, backlight display, RS-485/Modbus, inline pressure regulator, desiccant, universal power supply (100-240 VAC) and quick start guide.

# **Accessories**

19783	HF Online Windows <sup>™</sup> Software for data collection & reporting
19609	Remote Display for an additional digital readout.
39953	ProCal Primary Calibration Kit, Low Range, 0.02 & 10 & 100 NTU for TOL 3
39957	ProCal Primary Calibration Kit, Full Range, 0.02, 10, & 1000 NTU
20779S	Power Cord - 120 VAC / 240 VAC



# Specifications

Pango:	0 - 1000 NTU		
Range:	0-1000 NTO		
Measurement Principle:	Nephelometry (90)		
Accuracy:	2% of reading or ±0.02 Below 40 NTU (whichever is greater) 5% of reading above 40 NTU		
Resolution:	0.0001 (below 10NTU) Selectable		
Response Time:	Adjustable (5 to 500 seconds) 0 - 1000 NTU		
Standard Outputs:	4-20 ma Galvanic Isolated or RS-485 (selectable)		
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:	1°C - 50°C (34°F to 122°F)		
Input Pressure:	1 - 200psi (built in regulator set at 15psi)		
Enclosure:	Designed to meet 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		

Specifications subject to change without notice.



Ultrasonic \_\_\_\_ Cleaning System

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

			Turbi	idity			
10 m 1 1	1 Page 2 10 Page	film 1 in real i Effective surfic	Inc. 4 Contact Contact Contact Contact	(1000-1 (2010)1 (2010)00000 00000	10004 00011 000000	(Bur ) 10001 10000 00000 0000	(men) 10111 10111 10111 10111
10001 0 17 411 1 10 10 10 10		1 mm 11 3(-1) 1077,000 3(0) 2	180-0 12-10 120080	film 11 (11) ESCONT ALL 1	film fil 311311 EXAMP		filmen Ki 10-10-0 EEEEAN AUTO
ALCO	1.000 U 1000 U 1000 U 1000 U 1000 U	Film B STATE EDVIATE AUT (	Inc.8 IIIII IIIIII AU I	1960-31 1971-1 1922-025 1922-025	100-0 	1940-13 1000-10 1000-10 1000-10 1000-10	
1944 (1) 1747 10 1777 10 1777 10 1777 10	Line X North Belline Allo	Elite 2 state r Eliteratur A.C.		1 (m. 16 17 / 17 / 1 12 / 17 / 1 12 / 17 / 1	iller 18 1747 18 1855 18 1855 18	1 Mar 11 17 A 11 18 11 17 11 19 11 17 11 19 11 17 11	
	HF	Scier	ntific (	DNUNE	Softw	are	
ex sever		PERAME	ACCU, ADM	5854T	D-CTEV		

HF Online software

3170 Metro Parkway Ft. Myers, FL 33916 Ph: (239) 337-2116 Fax: (239) 332-7643 Toll Free: 888-203-7248 E-mail: hfinfo@watts.com www.hfscientific.com