



# MARTEK® MARK 18

## ULTRAPURE WATER QUALITY ANALYZER

MARTEK INSTRUMENTS INC. MANUFACTURERS OF WATER QUALITY INSTRUMENTATION



*...for accurate, continuous,  
in situ monitoring of ultrapure  
water quality parameters*

- **Autoranging conductivity measurements**
- **Autoranging dissolved oxygen measurements (0-20 ppm, 0-2 ppm, 0-200 ppb, 0-20 ppb)**
- **User-selectable temperature compensation formulas for conductivity**
- **Solution compensation for both conductivity and pH**
- **Digital calibration and password protection**
- **Simultaneous RS232C digital and user-selectable 0-1 or 0-5 volt, and 4-20 mA analog outputs**
- **High-Low or High-High alarm set points with control relays**
- **Reliable, easy-to-maintain sensor technology**

The Martek Mark 18 Ultrapure Water Quality Analyzer provides laboratory accuracy in a single channel on-line instrument for continuous monitoring of high purity water quality. Designed to provide maximum value and flexibility, the Mark 18 can be adapted to monitor any water quality parameter simply by selecting the appropriate sensor and program. Data is displayed in precise engineering units on a large back-lit display while both digital and analog output signals are available for external recording equipment and control devices.

Designed to withstand harsh environments, the Mark 18 utilizes protected circuitry and a unique power supply to minimize electrical noise and interference commonly found in industrial climates.

The ability to collect, process, and transmit real-time data make the Mark 18 ideal for high purity processes in nuclear and high-performance fossil fuel power plants; condensate polishing systems and demineralizers; semiconductor and pharmaceutical manufacturing plants; and other industrial applications.

# MARTEK MARK 18 SPECIFICATIONS

Parameter	Range	Resolution	Accuracy	Sensor Type
Temperature	0 to 100°C	0.01°C	±0.10°C	Thermoliner array
Conductivity	0 to 2.0000µS / cm 0 to 20.000µS / cm	0.0001µS / cm 0.001µS / cm	±0.001µS / cm ±0.01µS / cm	2-element cell Type 316 SS
	0 to 20.000µS / cm 0 to 200.00µS / cm	0.001µS / cm 0.01µS / cm	±0.01µS / cm ±0.1µS / cm	
	0 to 200.00µS / cm 0 to 2000.0µS / cm	0.01µS / cm 0.1µS / cm	±0.1µS / cm ±1µS / cm	
pH	0 to 14 pH	0.01 pH	±0.1 pH	Combination glass electrode with double junction reference
ORP	±1400 mV	±1.0 mV	±10.0 mV	
Dissolved Oxygen	0 to 20 ppm	0.01 ppm	±0.1 ppm	Galvanic cell with platinum-lead electrode
	0 to 2 ppm	0.001 ppm	±0.01 ppm	
	0 to 200 ppb	0.1 ppb	±1.0 ppb	
	0 to 20 ppb	0.01 ppb	±0.1 ppb	
HCl, H <sub>2</sub> SO <sub>4</sub> or NaOH	0 to 10% by weight	0.01%	±0.2%	2-element insertion- style cell. Type 316 SS

<b>Power</b>	120 or 240 volts AC, 50 / 60 Hz with fuse protection
<b>Printer Output</b>	Serial ASCII RS232C and isolated analog output of 0 -1, 0 - 5 volts, or 4 - 20mA DC full scale standard
<b>Alarm Output Signals</b>	DPDT Relay Contact Closures rated for 3 amps at 120 volts
<b>Case Dimensions</b>	6.5 inches (16.5cm) width X 4.0 inches (10.2cm) height X 7.75 inches (19.7cm) depth behind front surface panel
<b>Case Weight</b>	3.0 pounds (1.37 kg)
<b>Mounting</b>	Hardware supplied for panel mounting
<b>Construction</b>	NEMA 12 aluminum enclosure coated to MIL SPECS

## ORDERING INFORMATION

P/N		P/N	
<b>178-10</b>	Mark 18 Monitor (single channel)	<b>180-26</b>	ORP Sensor Assembly with preamp
<b>180-21-1</b>	Conductivity Flow-thru Sensor with preamp for ranges 0 - 2 & 0 - 20 µS / cm	<b>180-27</b>	Dissolved Oxygen Sensor with preamp
<b>180-21-2</b>	Conductivity Flow-thru Sensor with preamp for ranges 0 - 20 & 0 - 200 µS / cm	<b>180-28</b>	NaOH (Caustic) Insertion Cell with preamp
<b>180-22</b>	Conductivity Flow-thru Sensor with preamp for ranges 0 - 200 & 0 - 2000 µS / cm	<b>180-29</b>	H <sub>2</sub> SO <sub>4</sub> (Acid) Insertion Cell with preamp
<b>180-24</b>	pH Sensor Assembly with preamp	<b>180-29H</b>	HCl (Acid) Insertion cell with preamp
		<b>180-51</b>	Type 316 SS Flow Chamber for pH / DO sensor

### NOTE:

All prices FOB Factory and include the following warranties against defects in materials or workmanship: **Analyzer and Preamps-5 years, Conductivity Sensors-Lifetime, Dissolved Oxygen sensors-5 years.** Consult factory for specific warranty information. Specifications and prices subject to change without prior notice.



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