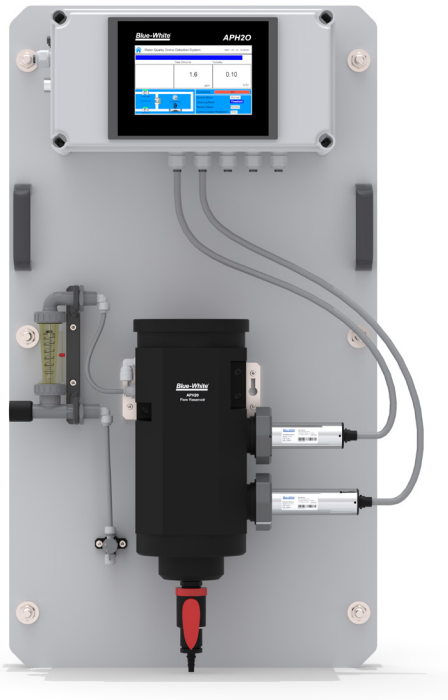


# APH20

## Multi Parameter Online Analyzer



### Key Features

- Turn-Key Monitoring Solution for Clean Water Applications
- Highly Accurate, Real-Time Measurement, Display, and Data-Logging
- Ultra-Low Turbidity, Chlorine (Free or Total), pH, and Temperature
- Touch Screen Display and Data-Logging Terminal
- FCL700 Smart Sensor
- UT700 Ultra-Low Turbidity Sensor with Unique Flat Surface Distal End in Quartz Glass Plate
- EPA 334.0 / ISO 7393 / EPA 180.1 Compliant

### Highlights

#### Turbidity Dual Range

.001 – 10 / 10 – 40.00 NTU

#### Turbidity Accuracy

+/- 0.005 NTU or  
2% <10NTU

#### Turbidity Repeatability

+/- 0.001 NTU or  
0.5% <10NTU

#### Free Chlorine Method

Bare Gold - Electrochemical Method  
Chlorine Range: 0.1–5 PPM

#### pH Method

Electrochemical Method

#### Sensors

White Light (LED) Flat Electrode  
FCL-700 Composite Sensor

#### Sampling Chamber

Dual Sensor Flow Reservoir

#### Warranty

13 Months

### Typical Applications

- Drinking Water
- Domestic Water
- Secondary Water Supply
- Sanitary Water
- Decorative Water / Swimming Water
- Food & Beverage Process Water



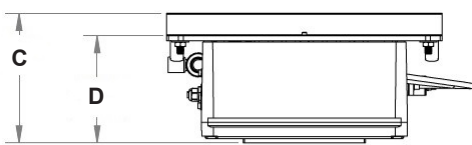
# Engineering Specifications

<b>Item</b>	APH20
<b>Turbidity Wavelength</b>	Warm White
<b>Light Source</b>	LED
<b>Turbidity Dual Range</b>	0.001 – 10 / 10 - 40.00 NTU
<b>Turbidity Accuracy</b>	+/- 0.005 NTU or 2% <10NTU
<b>Turbidity Repeatability</b>	+/- 0.001 NTU or 0.5% <10NTU
<b>Chlorine Method</b>	Bare Gold - Electrochemical Method
<b>Chlorine Range</b>	0.01 – 5.00 ppm, 0.01 - 10.00 (Free or Total)
<b>pH Method</b>	Electrochemical Method
<b>pH Range</b>	0.01 – 14.00 pH
<b>Measurement Accuracy</b>	0.001 NTU or $\pm$ 1% Full Scale +/- 0.01 ppm or 1% Full Scale w/pH compensation to 9.0 +/- 0.01 pH
<b>Minimum Resolution</b>	0.001 NTU 0.01 ppm 0.01 pH
<b>Response time</b>	4s after immersion - Turbidity T95 $\leq$ 60s – Free Chlorine T95 $\leq$ 5s - pH
<b>Compliance</b>	EPA-180.1/334.0
<b>Measurement Interval</b>	Continuous Measurement
<b>Display</b>	7-inch LCD Color Industrial Capacitive Touch Screen
<b>Storage Capacity</b>	Built-In 4GB of Ram for Storing up to 1-Million Data/Event Records
<b>Power Requirement</b>	96-260VAC / 50-60 Hz; 10A Fuse; 200 W
<b>Output</b>	3 x 4-20 mA (NTU, Cl, and pH) / RS-485 Modbus - RTU / Modbus TCP
<b>Input</b>	3 x 4-20 mA / RS-485 Modbus - RTU (from sensor)
<b>USB</b>	1 x USB host, for data downloading and screen upgrade
<b>Internet</b>	RJ-45 socket, Modbus-TCP
<b>Panel Operational Temperature</b>	40 – 113°F (4-45 °C)
<b>Storage Temperature</b>	Instrument: -4 – 131°F (-20 – 55°C) / Sensors 32 – 122°F (0 – 50°C)
<b>Sample Water Temperature</b>	40 – 104°F (4-40°C)
<b>Sample Water Pressure</b>	2 – 30 psi (0.05 – 0.2MPa) - (or as needed to provide required flow rate)
<b>WR20 Sample Water Flow Rate</b>	9.5 - 15.5 GPH (600-1,000mL /Minute)
<b>WR20 Line Size</b>	1/4" Inlet / 3/8" Overflow / 3/4" Outlet / 1/2" Drain
<b>Rating</b>	IP-65 Panel-Display / IP-67 Sensors
<b>Regulation</b>	CE / RoHS
<b>Relative Humidity</b>	20% - 90% (No Condensation)
<b>Altitude</b>	<6,561 feet (<2,000 Meter)
<b>Dimensions (HxWxD)</b>	Panel 36 H x 20 W x 9.42 D inches
<b>Approximate Product Weight</b>	45 lbs
<b>Shipping Dimensions</b>	42" x 26" x 16" (1067H x 661W x 407D mm)

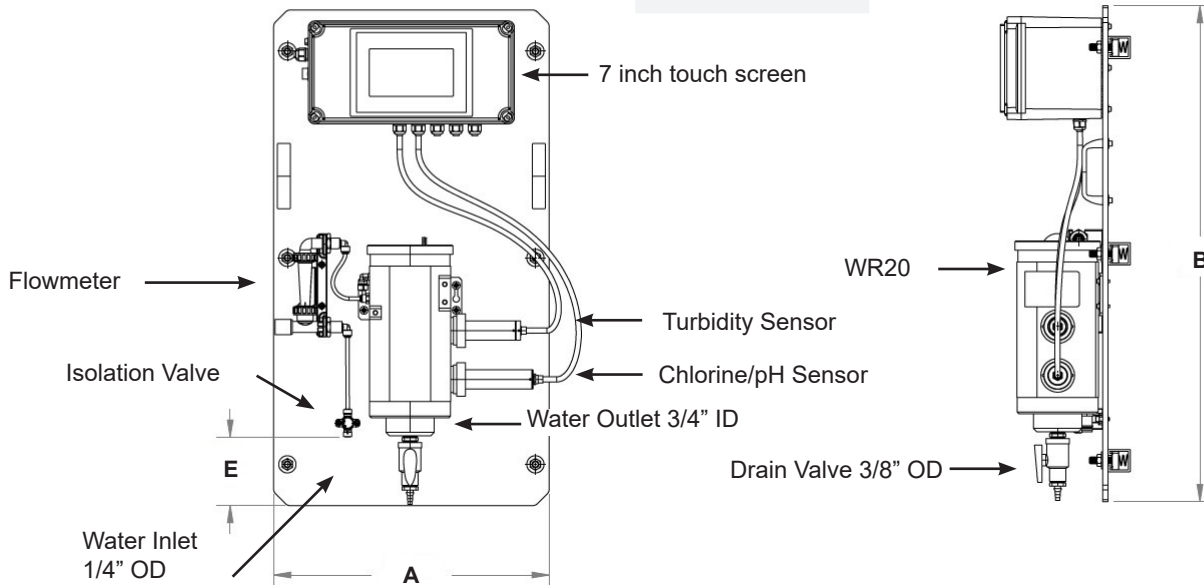
## Features

- Ultra-low resolution UT700 turbidity sensor offers a detection light source using warm white LED in 90-degree surface scatter format in accordance with USEPA 180.1 standards.
- FCL700 three-parameter composite sensor for Chlorine (Free or Total), pH and temperature in compliance with USEPA 334.0 guidelines. Advanced sensor PCB offers built-in temperature and pH parameter compensation (up to pH 9.0) algorithms.
- Unique Bare-Gold electrode technology for residual chlorine measurement eliminates membranes and electrode solution replenishment commonly associated with conventional sensors.
- Dual-Sensor flow reservoir provides sample calming for dissipation of air-bubbles and settling of suspended solids, foam or other impurities commonly observed in drinking water influent. Allows highest level of turbidity resolution on the market, and greatly extends the maintenance cycle of the sensor while providing a large buffer capacity to mitigate pressure fluctuations.

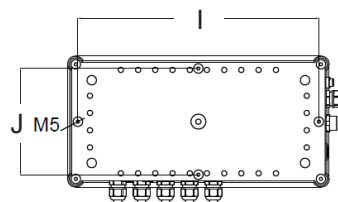
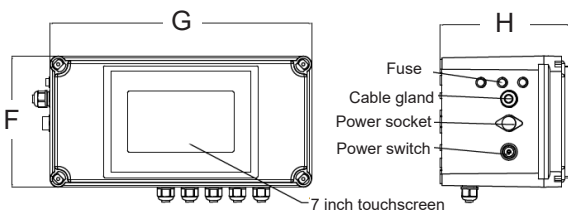
## APH20 Series Panel Dimensions



Dim	Inch	cm
A	20.00"	50.8
B	36.00"	91.4
C	9.42"	23.9
D	7.80"	19.8
E	4.98"	12.6

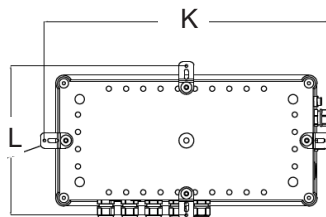


## APH20 Series Controller Dimensions



Dim	Inch	cm
F	7.48"	19.0
G	14.96"	38.0
H	7.42"	18.85
I	13.78"	35.0
J	6.02"	15.4
K	16.22"	41.2
L	8.5"	21.6

### Installation Method 1



# APH20 Analyzer Panel

## Model Number

<b>APH20</b>	Multi-Parameter Online Analyzer Panel (Chlorine, Turbidity, pH, Temperature) Includes: TS10 7" Touchscreen Display, WR-20 Dual Sensor Flow Reservoir, UT700 Turbidity Sensor, FCL700 Chlorine/pH/Temperature Sensor, Assembled Panel with Flowmeter, 110VAC Power Cord.
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- Power Requirement 96-260 VAC / 50-60 Hz: 10A Fuse: 200W

- CE, RoHS, EPA-180.1/334.0

## Replacement Parts and Accessories

 <p><b>UT700 Turbidity Sensor</b></p>	 <p><b>FCL700 Chlorine + pH + Temp Sensor</b></p>	 <p><b>EC700 Electrode Cartridge (for FCL700 Sensor)</b></p>
 <p><b>TS10 7" Display Terminal</b></p>	 <p><b>WR20 Dual Sensor Flow Reservoir Assy</b></p>	 <p><b>Flowmeter, F-440 (71010-949)</b></p>
 <p><b>CAL700 Calibration Kit</b></p>	 <p><b>AP-MA10-CR 10' Cable Extension (for CAL700 Kit)</b></p>	 <p><b>500ml Turbidity Calibration Standard*</b></p>

\*500ml 10 NTU Calibration Standard (90008-973)

\*500ml 20 NTU Calibration Standard (90008-974)

Sensor Cleaning Solution (90008-988)

AP-MA1.5-CR 1.5 meter Short Cable - 8Pin x Flying leads (90008-954)

pH Calibration Combo Pack (4, 7, 10 pH) (90008-983)