

# APFCL

## Online Chlorine + pH Analyzer



### Key Features

- Turn-Key Monitoring Solution for Clean Water Applications
- Highly Accurate, Real-Time Measurement, Display, and Data-Logging
- Chlorine, pH, and Temperature
- Touch Screen Display and Data-Logging Terminal
- FCL700 Smart Sensor

### Highlights

#### Free Chlorine Method

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

#### pH Method

Electrochemical Method

#### Sensor

Self-Cleaning  
Flat Electrode

#### Compensation

Built-in Temperature and pH  
Parameter Compensation

#### Sampling Chamber

WR05 Sensor Flow Reservoir

### Typical Applications

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



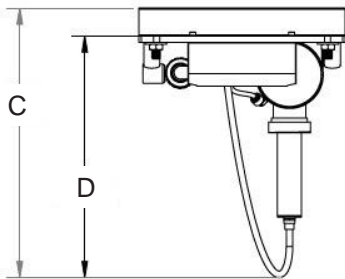
# Engineering Specifications

<b>Item</b>	APFCL
<b>Sensor Body Material</b>	304SS
<b>Sensor Name</b>	FCL700
<b>Chlorine Range</b>	0.00-5.00 ppm, 0.00-10.0 ppm (Free or Total)
<b>Precision</b>	+/- 0.01mg/L or 1% of the value w/pH compensation to 9.0
<b>pH Range</b>	0-14
<b>pH Precision</b>	+/- 0.01 pH
<b>Sample Operating Temperature</b>	40 – 104 °F (4 °C – 40 °C)
<b>Sample Inlet Pressure</b>	7.25 – 30 psi (0.05 – 0.2MPa)
<b>Sensor Maximum Pressure</b>	100 psi (6.9 Bar)
<b>Sensor Response Time</b>	T95≤60s – Free Chlorine / T95≤5s - pH
<b>Measurement Interval</b>	Continuous
<b>Installation</b>	WR05 Self-Regulating Flow Reservoir w/Rotameter & Isolation Valve - Included
<b>WR05 Minimum Flow Rate</b>	3.1 g/h (200 mL/minute)
<b>WR05 Maximum Flow Rate</b>	6.2 g/h (400 mL/minute)
<b>WR05 Sample Inlet</b>	1/4 - inch OD
<b>WR05 Sample Outlet</b>	3/4 - inch ID - To Drain
<b>WR05 Sewage Overflow Outlet</b>	3/8 - inch OD - To Drain
<b>Panel Power Supply</b>	110/220VAC 50/60 Hz, 0.6A
<b>Panel Storage Temperature</b>	-4 – 158 °F (-20 – 70 °C)
<b>Panel Operating Temperature</b>	32 – 122 °F (-0 – 50 °C)
<b>TS05 Display</b>	2.8" Color 320 x 240 Resolution
<b>Input</b>	2 x 4-20 mA / RS-485 Modbus-RTU
<b>Output</b>	2 x 4-20 mA (Cl and pH)/ RS-485 Modbus-RTU / 1 x Contact Relay
<b>Data Storage</b>	32 M Flash
<b>USB</b>	1 x USB host for data downloading
<b>Relative Humidity</b>	5% - 95% (No Condensation)
<b>Altitude</b>	<6,561 feet (<2,000 Meter)
<b>Dimension (H x W x D)</b>	Panel 24.0" x 12.0" x 15.67" (610H x 305W x 398D mm)
<b>Approximate Weight</b>	~ 11 lbs (5 kg)
<b>Wet Material</b>	UPVC / Polycarbonate
<b>Rating</b>	IP-65 Panel-Display / IP-67 Sensors
<b>Compliance</b>	EPA 334.0 / ISO 7393
<b>Regulation</b>	CE Marked / RoHS
<b>Typical Electrode Service Life</b>	2 years
<b>Electrode Warranty</b>	6 Months
<b>Sensor Body Warranty</b>	13 Months
<b>Shipping Dimensions</b>	29" x 17" x 13" (737H x 432W x 330D mm)

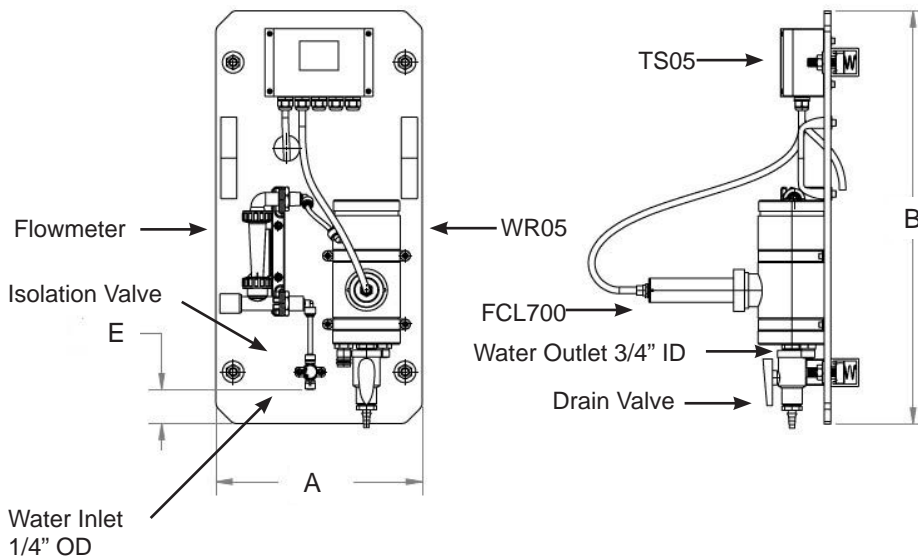
## Features

- FCL700 three-parameter composite sensor for residual free chlorine, 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. Flat bubble pH electrode design for reduced fouling potential.
- WR05 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 resolution on the market, and greatly extends the maintenance cycle of the sensor while providing a large buffer capacity to mitigate pressure fluctuations.
- Convenient and simple to install Back Panel for rapid installation.

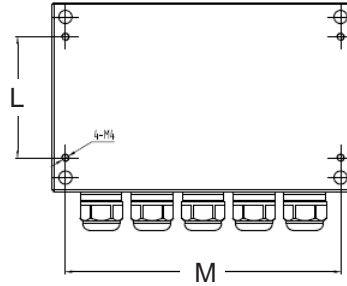
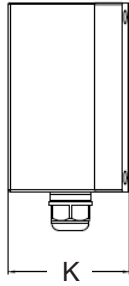
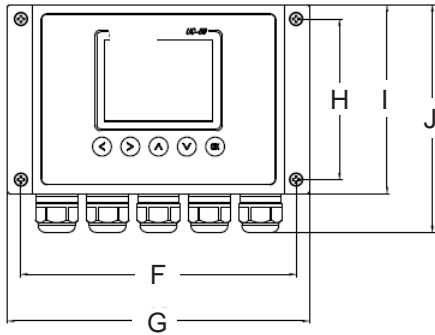
## APFCL Series Panel Dimensions



Dim	Inch	cm
A	12.00"	30.5
B	24.00"	61.0
C	15.67"	39.8
D	14.05"	35.7
E	1.98"	5.0

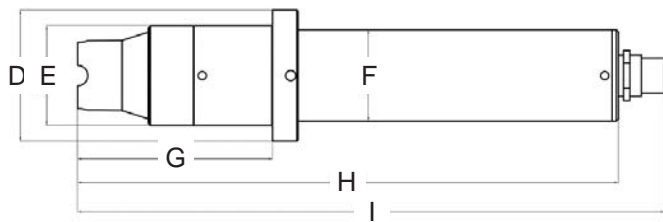


## APFCL Series Controller Dimensions



Dim	Inch	cm
F	5.75"	14.6
G	6.3"	16.0
H	3.35"	8.5
I	3.94"	10.0
J	4.92"	12.5
K	2.54"	6.5
L	2.52"	6.4
M	5.75"	14.6

## APFCL Sensor Dimensions (FCL700 Free Chlorine + pH)



Dim	Inch	cm	Dim	Inch	cm
D	2.0"	5.1	G	3.0"	7.6
E	1.53"	3.88	H	8.3"	21.08
F	1.4"	3.56	I	9.0"	22.88

### Order Information

APFCL Drinking Water Analyzer for EPA-180.1 Compliant Markets

Optional / Replacement Accessories

FCL700 Free Chlorine +pH + Temperature Sensor

WR05 Sensor Flow Reservoir Assembly

APFCL

FCL700

WR05