

SERIES 600 Ph/ORP CONTROLLERS

Provides reliable, flexible and powerful control for chemical additions, processes and wastewater treatment/ neutralization.

BENEFITS

- Δ Large touchscreen display with icon based programming makes setup easy.
- Δ Six control outputs allow the controller to be used in more applications.
- Δ Multiple language support.
- Δ On-screen graphing of sensor values and control output status.
- Δ Data logging.
- Δ Ethernet option for remote access.
- Δ Complete flexibility in the function of each relay.
 - On/Off Setpoint
 - Time Proportional Control
 - Pulse Proportional Control (when purchased)
 - In-Range or Out-of-Range activation
 - Probe wash
 - Timer based activation
 - Alarm



600 Series pH/ORP controllers will improve your treatment performance. Microprocessor-based, with a very easy-to-use menu format, 600 Series controllers measure in pH or mV accurately and reliably. A versatile output configuration allows you to program up to 6 outputs in a variety of ways - with just one controller. 600 Series controllers are available with either on/off mechanical relay outputs or direct pulse proportional control for metering pumps. Installation is as easy as unpacking the unit, mounting it and plugging it in. We also offer other wiring options, inputs and configurations to meet your requirements.

Measurement Performance

Description	Range	Resolution	Accuracy
pH	-2 to 16 pH units	0.01 pH units	± 0.01% of reading
ORP	-1500 to 1500 mV	0.1 mV	± mV

Inputs

Power

100-240 VAC, 50 or 60 Hz, 7A max. Fuse: 6.3 Amp

Sensor Input Signals

Amplified pH or ORP which requires a preamplified signal.

±5VDC power available for external preamps.

Each sensor input card contains a temperature input.

Temperature: 100 or 1000ohm RTD, 10K or 100K

Thermistor.

Outputs

Powered Mechanical Relays

(0 or 6 model code dependent)

Pre-powered on circuit board switching line voltage.

All relays are fused together as one group, total current must not exceed 6A (resistive), 1/8 HP (93W).

Dry Contact Mechanical Relays

(0, 2 or 4 model code dependent)

6 A (resistive), 1/8 HP (93W).

Dry contact relays are not fuse protected.

Pulse Outputs

(0, 2 or 4 model code dependent)

Opto-insolated, solid-state relay, 200mA, 40V DC

VLOWMAX = 0.05V @ 18mA

4 - 20mA

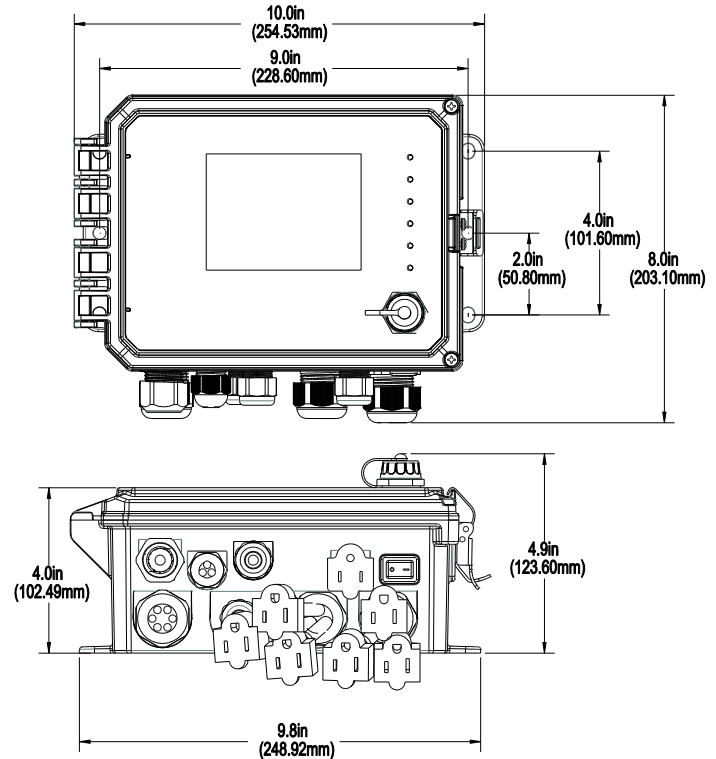
(0 or 2 model code dependent)

Internally powered, Fully isolated.

600 Ohm max resistive load, Resolution 0.0015% of span

Accuracy ± 0.5% of reading.

Dimensions



Sensor Specifications

pH/ORP Electrode

Range

0 to 14pH (0 to 12 w/out sodium ion error ±1999 mV (ORP)

Response

95% in less than 5 seconds

Operating Pressure

100psig

Cartridge Impedance

Not to exceed 1000MΩ over temp range.

Housing Impedance

Preamplified - 100Ω.

Non-preamplified - not to exceed 1000Ω over temp range.

Temperature Range

Housings w/ preamplifier 32 to 158°F (0 to 70°C)

Housings w/out preamplifier 32 to 212°F (0 to 100°C)

Cartridge 50 to 212°F (10 to 100°C)

Mechanical (Controller)

Enclosure Material Polycarbonate

Enclosure Rating NEMA 4X (IP65)

Dimensions 9.5x8x4" (241x203x102mm)

Display 320x240px backlit touchscreen

Ambient Temp -4 to 131°F (-20 to 55°C)

Storage Temp -4 to 176°F (-20 to 80°C)

Agency Certifications

Safety:

UL 61010-1:2012, 3rd ed.

CSA C22.2 No.61010-1:2012 3rd ed.

IEC 61010-1:2010 3rd ed.

EN 61010-1:2010 3rd ed.

EMC:

IEC 61326-1:2005

EN 61326-1:2005

Note: For EN61000-4-6, EN61000-4-3 the controller met performance criteria B. This equipment is suitable for use in establishments other than domestic and those directly connected to a low voltage. (100-240 VAC) power supply network which supplies buildings used for domestic purposes.

Note: Electrode life is drastically reduced when used at temperatures above 122°F (50°C).

ORDERING INFORMATION

Controllers

Model Wiring Sensor Inputs Outputs Ethernet

W-PH -

Model	Wiring
600 = 6 powered relays	H = Hardwired
	P = Prewired with USA cord and 6 pigtails
610 = 2 powered & 4 dry relays	H = Hardwired
	P = Prewired with USA cord and 6 pigtails
620 = 2 proportional relays & 4 dry relays	H = Hardwired
	P = Prewired with USA cord and 6 pigtails

Sensor Inputs
1 = One sensor input card
2 = Two sensor input cards

Outputs	Ethernet
N = None	N = None
A = dual 4-20 mA	E = Ethernet card

Sensors

Electrode Assembly				
Cartridge type, gel-filled double junction, CPVC with 20 ft. cable. Wetted materials of construction: CPVC, HDPE, Viton, glass (pH) and platinum for (ORP).				
Description			Price Code No.	
			w/ PREAMP	w/out PREAMP
pH	Submersion, 1" NPT,	NTC ¹	W-ELPHF21	W-ELPHF41
ORP	(User supplies pipe & coupling)	NTC ¹	W-ELMVF21	W-ELMVF41
pH	Finned Leads	ATC ²	W-ELPHF11	W-ELPHF31
pH	Submersion, 1 1/4" NPT,	NTC ¹	W-ELPHF22	W-ELPHF42
ORP	(User supplies pipe & coupling)	NTC ¹	W-ELMVF22	W-ELMVF42
pH	BNC Connections	ATC ²	W-ELPHF12	W-ELPHF32

¹ Non-temperature compensated.

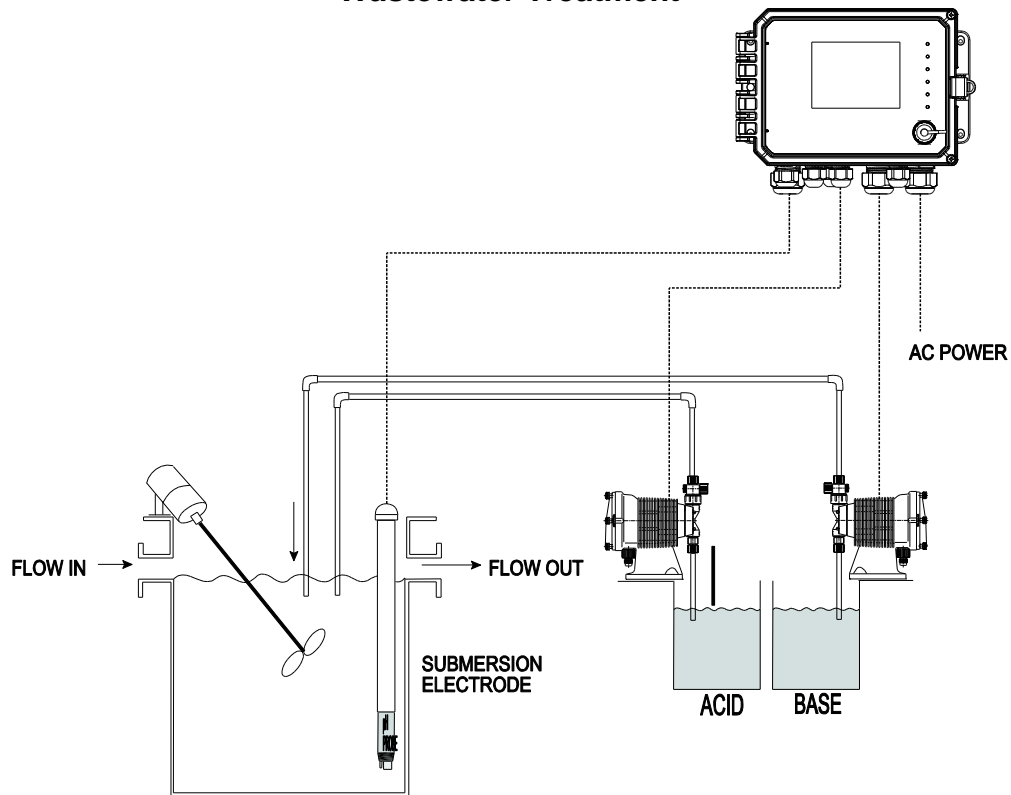
² Automatic temperature compensated.

Optional

Replacement Cartridge	
Description	Price Code No.
pH electrode, flat surface	W-ELPHFNN
ORP electrode, flat surface	W-ELMVFNN

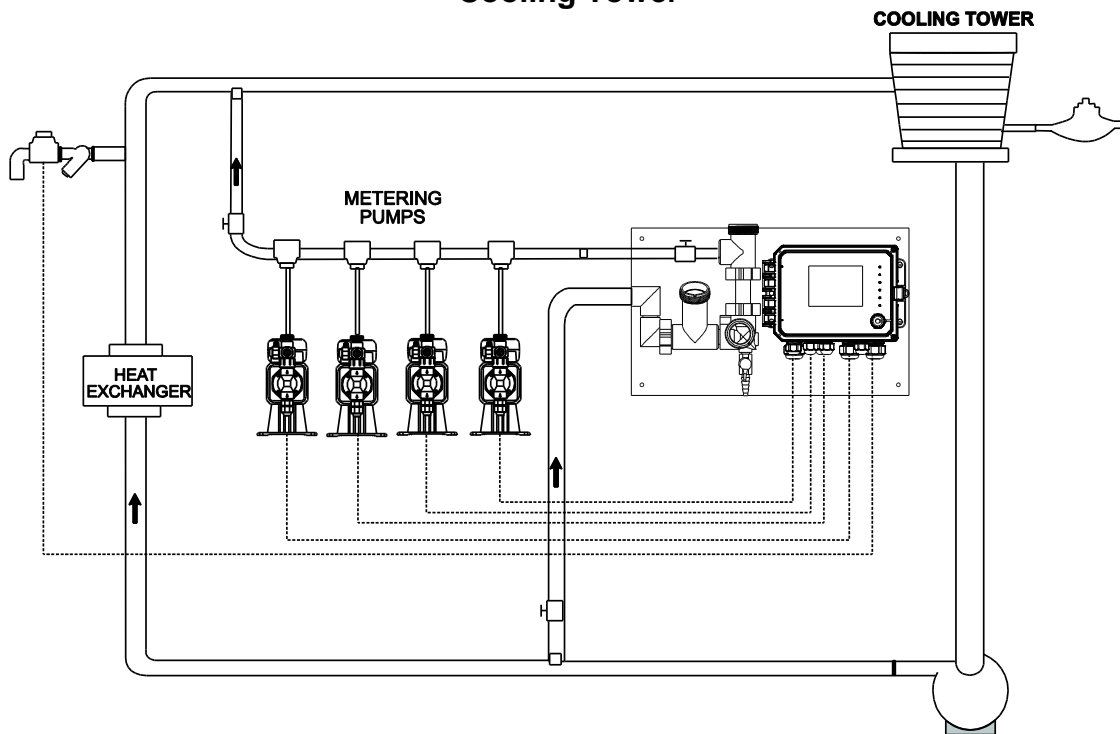
pH/ORP Preamplifier	
Description	Price Code No.
pH/ORP Preamp	W-190783
6 conductor cable for ATC	W-102535
4 conductor cable for NTC	W-100084

Wastewater Treatment



W-PH Controller with Submersion Electrode

Cooling Tower



W-PH Controller with In-Line Electrode