**Specifications**

**Inputs**
- **Power**: 100-240 VAC, 50 or 60 Hz, 7 A max, Pure: 6.5 A

**Sensor Input Signals**
- Contact Conductivity: 0, 0.1, 1, 10 or 100 Ohm constant, or Electrodes; Conductivity (not available on the combination sensor/analog input card) or Electrodeless (High Pressure)
- Amplified pH or ORP which requires a preamplified signal. VELL or VIDS series recommended. 5 VDC power available for external preamps.
- Each sensor input card contains a temperature input.
- Temperature: 100 or 1000 ohm RTD, or 100 KThermistor

**Analog (4-20 mA) Sensor Input (0, 1, or 2 depending on model code)**
- 2-wire loop powered self powered transmitters supported
- 3-wire and 4-wire transmitters supported
- Each dual sensor input board has two channels: Channel 1, 130 Ohm input resistance and Channel 2, 280 Ohm input resistance.
- Available Power: One independent isolated 24 VDC ±15% supply per channel. 1.5 W maximum for each channel.

**Electrical: Optically isolated and providing an electrically isolated 9V power with a nominal 2.3mA current when the digital input switch is closed, 0-10 Hz, 50 msec minimum width. Devices supported: Any device with isolated open drain, open collector, transistor or reed switch. Types: Paddlewheel Flowmeter**

**Outputs**

**Powered Mechanical Relay (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 GA (resistive), 1.8 A/F (SW)

**Dry Contact Mechanical Relay (0, 2 or 4 model code dependent)**
- 0 A (resistive), 1.8 A/F (SW)
- Dry contact relays are not fuse protected.

**Pulse Outputs (0, 2 or 4 model code dependent)**
- Cyclic-wound, solid state relay, 300VAC, 40V DC
- VoltageMax = 0.25 V @ 1mA

**Specifications**

**Mechanical Performance**
- **Resistance**
  - **Range**: 0-20 kOhm
  - **Resolution**: 0.0015% of span
  - **Accuracy**: ±0.5% of reading

**Measurement Performance**

<table>
<thead>
<tr>
<th>Electrodeless Conductivity</th>
<th>Temperature</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12,000 µS/cm</td>
<td>0-170°F</td>
<td>CPVC: 32-158°F</td>
</tr>
</tbody>
</table>

**Mechanical (Sensors)**

**Sensors**

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Pressure</th>
<th>Temperature</th>
<th>Materials</th>
<th>Presence Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>0-14.7 psi</td>
<td>32-113°F</td>
<td>CPVC, Polycarbonate</td>
<td>5/8” NPTF (if not specified)</td>
</tr>
<tr>
<td>ORP</td>
<td>0-100 psi</td>
<td>32-158°F</td>
<td>CPVC, Glass-filled PP, FKM, Isoplast</td>
<td>1” NPTM (if not specified)</td>
</tr>
<tr>
<td>Chlorine/Bromine</td>
<td>0-300 psi</td>
<td>32-158°F</td>
<td>316SS, PEEK</td>
<td>3/4” NPTM (if not specified)</td>
</tr>
</tbody>
</table>

**Agency Certifications**

<table>
<thead>
<tr>
<th>Safety</th>
<th>UL 61010-1:2012, 3rd Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA C22.2 No.61010-1:2012, 3rd Edition</td>
<td></td>
</tr>
<tr>
<td>IEC 61010-1:2010 3rd Edition</td>
<td></td>
</tr>
<tr>
<td>EN 61010-1:2010 3rd Edition</td>
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</tr>
<tr>
<td>EMC</td>
<td>IEC 61326-1:2010</td>
</tr>
<tr>
<td>EN 61326-1:2013</td>
<td></td>
</tr>
</tbody>
</table>

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**Note**: For EN61010-4, EN61010-4-3 the controller met performance criteria B. This equipment is suitable for use in installations other than domestic and those directly connected to a low voltage (100-240 VAC) power supply network which supplies buildings used for domestic purposes.
Specifications

Inputs

Power
100-240 VAC, 50 or 60 Hz, 7 A max, Pure 6.3 A

Sensor Input Signals (0, 1 or 2 depending on model code)
- Conducting Conductivity 0:01, 1:01, 2:01 or 3:10 cell constant, or
- Electrodeless Conductivity (not available on the combination sensor/analytical input card)

Digital Input Signals (6)
- Contacting Conductivity
- Low Speed Counter: Type Digital Inputs
- High Speed Counter: Type Digital Inputs

Analog (4-20 mA) Sensor Input (0, 1 or 2 depending on model code)
- Conducting Conductivity
- Contacting Conductivity
- Disinfect Sensing

Power Inputs
- Powered Mechanical Relays (0 or 6 model code dependent)
- Pulse Outputs (0, 2 or 4 model code dependent)

2-wire loop powered and self-powered transmitters supported
- 2-wire or 4-wire transmitters supported

Each dual sensor input card has two channels: Channel 1, 130 ohm input resistance and Channel 2, 280 ohm input resistance.

200,000-2,000,000 µS/cm 100 µS/cm, 0.1 mS/cm, 1 mS/m, 0.1 S/m, 100 ppm ±1% of reading

Specifications

Power

Measurement Performance

Mechanical (Controller)

- Pressure: 0-50 psi (0-3 bar) at 140°F (60°C)
- Hydrogen Peroxide 0-14.7 psi (0-1 bar) 32-113°F (0-45°C)
- Chlorine Dioxide 0-14.7 psi (0-1 bar) 32-131°F (0-55°C)
- Total Chlorine 0-14.7 psi (0-1 bar) 32-113°F (0-45°C)

Agency Certifications

- UL 61010-1:2012, 3rd Edition
- CSA C22.2 No.61010-1:2012, 3rd Edition
- EN 61010-1:2010 3rd Edition
- EMC: IEC 61010-1:2011

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

Inputs

Power
100-240 VAC, 50 or 60 Hz, 7A max, 6.5 A Amp

Sensor Input Signals (0, 1 or 2 depending on model code)
- Conducting Conductivity: 0, 0.1, 1 or 10 cell constant, or Electrodes Conductivity (not available on the combination sensor/input card) or Electrodes Conductivity (not available on the combination sensor/input card)

Amplifier pH or ORP which requires a preamplified signal. Balun, WBE or DDS series recommended. ±5 VDC power available for external preamps.

Each sensor input card contains a temperature input. Temperature: 100 or 1000 ohms RTD. 0.1°F (0.06°C) accuracy.

Available Power: One isolated independent 24 VDC ±15% supply per channel. 1.5 W maximum for each channel.

Digital Inputs Signals (0, 1 or 2 depending on model code)
- 2-wire loop powered and self-powered transmitters supported
- 2-wire and 4-wire transmitters supported
- Dual or single channel input
- Available Power: One independent isolated 24 VDC ±15% supply per channel. 1.5 W maximum for each channel
- 200 mA at 24 VDC total power consumption for all channels (four total channels possible if two dual boards are installed. 20V equivalent to 2 Little Dipper sensors)

Digital Outputs Signals (0, 1 or 2 depending on model code)
- Opto-isolated, solid-state relay, 200mA, 40V DC
- Dry contact relays are not fuse protected.
- 6 A (resistive), 1/8 HP (93W)

Mechanical (Controller)
- Pressure: 0 to 30 psi (0 to 21 bar)*
- Temperature: -40°F to 158°F (-40 to 70°C)*
- Dimensions: 9.5 x 8 x 4" (241 x 203 x 102 mm)
- Display: 200-240 volt microprocessor backlit display with touchscreen
- Ambient Temperature: -4 to 131°F (-20 to 55°C)
- Storage Temperature: -4 to 176°F (-20 to 80°C)

Agency Certifications
- UL 61010-1:2012, 3rd Edition
- CSA C22.2 No.61010-1:2012, 3rd Edition
- IEC 61010-1:2010 3rd Edition
- EN 61010-1:2010 3rd Edition
- EMC: IEC 61326-1:2013

Note: For EN6100-4-4, IEC61000-4-4 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.
### Summary of Key Benefits

- Large backlit display with icon-based programming makes setup easy
- Universal sensor input provides extraordinary flexibility; the same controller can be used with almost any type of sensor needed
- Combination Sensor Input and Analog Input board that add even more flexibility
- Datalogging
- On-screen and web page graphing of sensor values and control output status
- Multiple language support allows simple setup no matter where your business takes you
- Six control outputs allow the controller to be used in more applications
- Economical wall-mounted package for easy installation
- Automatic flow compensation

### Ordering Information

**Example:**  WCT600PCSNE-BI

**Type of Input Card**
- **WPH** pH/ORP Sensors
- **WCN** Conductivity Sensors
- **WBL** Block Heater
- **BCD** Boiler Sensor Without ATC
- **BN** Boiler Sensor Without ATC, K=1.0, 250 psi, 20 ft. cable
- **BN** Boiler Sensor with ATC, K=1.0, 250 psi, 10 ft. cable
- **BD** Boiler Sensor with ATC, K=0.1, 250 psi, 10 ft. cable
- **HN** High Pressure Flow Switch Manifold
- **HA** High Pressure Conductivity Manifold
- **PN** Panel Manifold
- **PX** Panel Manifold
- **CD** Condensate Sensor
- **AD** ADP Conductivity Sensor
- **BN** Boiler Sensor Without ATC, K=1.0, 250 psi, 20 ft. cable
- **BN** Boiler Sensor with ATC, K=1.0, 250 psi, 10 ft. cable

**Conductivity, pH/ORP & Disinfection Sensors**
- **FH** Flat pH Cartridge No ATC + Little Dipper
- **FD** Flat pH Cartridge No ATC + Rod ORP Cartridge No ATC
- **BC** Flat pH Cartridge No ATC + Rod ORP Cartridge No ATC
- **DE** Flat pH Cartridge No ATC + Rod ORP Cartridge No ATC
- **SHN** Shunt Sensor with Shunt Sensor

**Electrodeless Conductivity Sensors**
- **FJ** Electrodeless Conductivity + Flow Switch Manifold on Panel
- **FH** Electrodeless Conductivity + Flow Switch Manifold on Panel
- **FN** 316SS Contacting Conductivity + Flow Switch Manifold on Panel
- **BN** Graphite Conductivity + Flow Switch Manifold on Panel

**Relay/Wiring Input Cards**
- **CN** 2 Opto/4 Dry Relays
- **CS** 2 Powered/4 Dry Relays
- **SS** 640P Hardwired
- **SN** 620D Prewired with DIN Power Cord, No Pigtails
- **CS** 620H Prewired with DIN Power Cord, No Pigtails
- **CSHB** Prewired with USA Cord and Two 20 ft. Pulse Cables

**Ethernet Options**
- **ET** Ethernet Card
- **ET** Ethernet Card with Modbus/TCP or CCQX
- **ET** Ethernet Card with Modbus/TCP or CC

**Dimensions**

**Panel Mounted Flow Switch Manifold Dimensions**

- **Model:**
  - D: 1.75 in (44 mm)
  - E: 1.75 in (44 mm)
  - F: 1.75 in (44 mm)
  - G: 1.75 in (44 mm)

**Ordering Information**

- **Model:**
  - WCT600-CT-HA, HB, HC, HD, HH, HI, HJ, WCT600-CT-HA, HB, HC, HD, HH, HI, HJ
  - W600-CT-HE/DF 22.5”
  - W600-CT-HN 24”
  - W600-DS-PN 24”
  - W600-DS-PX 24”

**Tolerances:**
- +/- 0.1" (2.5 mm)
- +/- 0.3" (8 mm)
- +/- 0.01" (571 mm)

**W600 Series Controllers**

The W600 series provides reliable, flexible and powerful control for your water treatment program.
W600 Series Controllers

The W600 series provides reliable, flexible and powerful control for your water treatment program.

Summary of Key Benefits

- Large backlit display with icon based programming makes setup easy
- Universal sensor input provides extraordinary flexibility; the same controller can be used with almost any type of sensor needed
- Combination Sensor Input and Analog Input board that add even more flexibility
- Six control outputs allow the controller to be used in more applications
- Economical wall-mount package for easy installation
- On-screen and web page graphing of sensor values and control output status
- Two Virtual inputs that are calculated from two real inputs (cycles of concentration, % injection, etc.)
- Complete flexibility in the function of each relay
  - pH/ORP Setpoint
  - Time/Proportional Control
  - Pulse Proportional Control (when purchased with 4-20 mA or pulse solid state opto outputs)
  - PID Control (when purchased with 4-20mA or pulse solid state opto outputs)
  - In-Range or Out-Of-Range activation
  - Probe wash
  - Timer based activation
  - Activation based upon the state of a contact closure
  - Timed activation triggered by a Water Contactor or Paddlewheel flow meter's accumulated total flow
  - Alarm for another output
  - Activate as a percent of another output's on-time
  - Spike Set Point
  - For Cooling Tower and Boiler applications:
    - Biocide Timer
    - Boiler blowdown on conductivity using intermittent sampling

Datalogging

- Emailing Alarm messages, Datalog reports or System Summary reports
- Ethernet option for remote access via the Internet, LAN or Modbus/TCP