The West 8600 temperature controller can measure and display the heater current. Special heater break alarms give early warning of element failure, to protect equipment and product. A soft-start feature is available for process warm up.

- Heat/ Cool operation
- Process & Heater alarms
- Soft Start
- Ramping setpoint
- Current “Quick Transfer”
- Current Display
- RS485 Comms
- PC configuration

### Technical Data

**Features**
- **Control Types**
  - Full PID with Pre-tune, Self-tune, Manual Tuning, or On-Off control. Heat only or heat & cool
  - Allows lower SP value and cycle time during the process start-up phase
  - Selectable from front panel, with bumpless transfer. Instant power-off feature also available as standard

- **Output Configuration**
  - Up to 4 total. Max 2 for control (Heat & Cool), max 3 for Alarms, max 1 for retransmit Process value or Setpoint

- **Process Alarm Types**
  - Process high, process low, SP deviation, band, logical OR

- **Heater Break Alarm Types**
  - Current low or high, (in absolute amps or % of nominal current) plus contactor/thyristor short circuit

- **Human Interface**
  - 4 button operation, dual 4 digit 10mm & 8mm high LED displays, plus 3 LED indicators

- **PC Configuration**
  - Off-line configuration from serial port to dedicated config socket (comms option not required)

**Input**
- **Thermocouple**

- **RTD**
  - 3 Wire PT100, 50Ω per lead maximum (balanced)

- **Impedance**
  - >100MΩ

- **Accuracy**
  - +/- 0.25% of input span +/- 1 LSD (T/C CJC better than 0.7°C)

- **Sampling**
  - 4 per second, 14 bit resolution approximately

- **Sensor Break Detection**
  - <2 secs, control O/P’s turn off, high alarms activate for thermocouple ranges, low alarms activate for RTD

- **Heater Current**
  - 0-50mA secondary from external current transformer. Display is scaleable up to 100 amps

**Outputs & Options**
- **Ctrl & Alarm Relays**
  - Contacts *SPDT 2Amp resistive at 240V AC,>500,000 operations.*
  - *Dual relay=SPST for O/P’s 2 & 4 Drive capability, output 1= >10V DC into 500Ω min, output 2= >4.3V DC into 250Ω min
  - 0.01 to 1 Amp AC 20 to 280V, 47 to 63Hz

- **Control SSR Outputs**
  - Drive capability, output 1= >4.3V DC into 250Ω min, output 2= >10V DC into 500Ω min

- **Solid State (Triac) Outputs**
  - 0-20/4-20mA into 500Ω max, 0-10/0-5V into 500Ω min. Accuracy typically +/- 0.25%

- **Communications**
  - 2 Wire RS485, 1200 to 9600 Baud, Modbus or West ASCI (Selectable)

- **Retransmit Outputs**
  - Volt free or TTL input. Selects between 2 setpoints or quick transfer of heater current as nominal value

**Operating & Environmental**
- **Temperature & RH**
  - 0 to 55°C (-20 to 80°C storage), 20% to 95%RH non-condensing

- **Power Supply**
  - 90 to 264V 50/60Hz (optional 20 to 55V AC/22 to 65V DC), approx 4 Watts

- **Front Panel Protection**
  - IEC IP66 (Behind panel protection is IP20)

- **Approvals and Certification**
  - CE, UL & ULc

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8600 Spec Sheet 07/00
**Input type Options and Power Supply**

<table>
<thead>
<tr>
<th>Input Type</th>
<th>Options</th>
<th>Power Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Wire RTD or DC mV</td>
<td>00</td>
<td>No Options/90-264V AC supply</td>
</tr>
<tr>
<td>Thermocouple</td>
<td>02</td>
<td>No Options/24-48V AC or DC supply</td>
</tr>
<tr>
<td>Relay Control</td>
<td>10</td>
<td>RS485 Comms/90-264V AC supply</td>
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<tr>
<td>DC for SSR Control</td>
<td>12</td>
<td>RS485 Comms/24-48V AC or DC supply</td>
</tr>
<tr>
<td>Triac Control</td>
<td>30</td>
<td>Dual SP or Current Transfer/90-264V AC supply</td>
</tr>
<tr>
<td>Output 2 and 4</td>
<td>32</td>
<td>Dual SP or Current Transfer/24-48V AC or DC supply</td>
</tr>
</tbody>
</table>

**Output 1**
Type is fixed as Relay/SSR (selectable)

**Output 2 and 4**
Configurable as Cool O/P or Alarm via plug-in Relay, SSR, Triac or DC Linear modules. A Dual Relay card is available which allows Cool O/P or Alarm on output 2 plus Heater Break Alarm on output 4

**Output 3**
Configurable as Alarm via plug-in Relay module, or retransmit using DC Linear module

**Option Slot**
Configurable as RS485 comms or dual setpoint selection/current transfer, via plug-in modules

**Current Transformers**

<table>
<thead>
<tr>
<th>Current</th>
<th>Part Number</th>
</tr>
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<tbody>
<tr>
<td>25 Amp</td>
<td>M9610-A25</td>
</tr>
<tr>
<td>50 Amp</td>
<td>M9610-A50</td>
</tr>
<tr>
<td>100 Amp</td>
<td>M9610-A100</td>
</tr>
</tbody>
</table>

**Field Reconfiguration**
Configurable Thermocouple or RTD, no extra parts required

**Order Code**

**Input Configurable Thermocouple or RTD, no extra parts required**

**Output 1**
Type is fixed as Relay/SSR (selectable)

**Output 2 and 4**
Configurable as Cool O/P or Alarm via plug-in Relay, SSR, Triac or DC Linear modules. A Dual Relay card is available which allows Cool O/P or Alarm on output 2 plus Heater Break Alarm on output 4

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<td>M9610-A50</td>
</tr>
<tr>
<td>100 Amp</td>
<td>M9610-A100</td>
</tr>
</tbody>
</table>

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