The 8100+ updates our popular 8100 controller. With its improved interface, technical functionality and field flexibility, the West 8100+ is not only backwards compatible with the 8100, but provides a range of new features.

- 1/8 DIN Size
- Jumperless Configuration
- Auto Detected Hardware
- Auto or Manual Tuning
- Heat/Cool Operation Option
- Process & Loop Alarms Options
- Ramping setpoint
- Modbus & ASCII Comms Options
- Dual Setpoint Selection Options
- Two process alarms Options
- Configuration via PC Option
- Replaceable Output & Option Modules
- Remote Setpoint Option

**Features**

**Control Types** - Full PID with Pre-tune, Self-tune, Manual Tuning, or On-Off control. Heat only or heat & cool.
**Auto/Manual** - Selectable from front panel or external selection via digital input, with bumpless transfer.
**Output Configuration** - Up to 3 possible, for control (Heat & Cool), Alarm or retransmit of Process Value or Setpoint.
**Alarm 1 & 2 Types** - Process high, process low, SP deviation, band, logical OR with adjustable hysteresis. Also 1 loop alarm for process security.
**Human Interface** - 4 button operation, dual 4 digit 10mm & 8mm high LED displays with choice of Red/Red, Green/Green or Red/Green plus 5 LED indicators.
**Manual or PC Configuration** - Off-line configuration from serial port to dedicated config socket (comms option not required).
**Transmitter Power Supply (Option)** - 24VDC (910 Ohm minimum load resistance)

**Inputs**

**RTD** - 3 Wire PT100, 500hm per lead maximum (balanced). Scalable within selected range.
**DC Linear** - 0-20/4-20mA, 0-50/10-50mV, 0-5/1-5/0-10/2-10V. Scalable -1999 to 9999, decimal point selectable.
**Impedance** - >10Mohm for Thermocouple and mV ranges, 47Kohm for V ranges and 5ohm for mA ranges.
**Accuracy** - +/- 0.1% of input range +/- 1 LSD (T/C CJC better than 1°C).
**Sampling** - 4 per second, 14 bit resolution approximately.
**Sensor Break Detection** - <2 secs (except zero based DC ranges), control O/P's turn off, high alarms activate for T/C and mV ranges, low alarms activate for RTD, mA or V ranges.
**Remote Setpoint (Option)** - 0-20mA, 4-20mA, 0-100mV, 0-5V, 1-5V, 0-10V, 2-10V or Potentiometer (2Kohm minimum) Scaleable - 1999-9999. Local/Remote setpoint selected from digital input (supplied as part of Full RSP) or front panel.

**Outputs & Options**

**Control & Alarm Relays** - Contacts SPDT 2 Amp resistive at 240V AC, >500,000 operations. Output #1 module is now field replaceable.
**Control SSR Outputs** - Drive capability >10V DC in 500ohm min
**Solid State (Triac) Outputs** - 0.01 to 1 Amp AC 20 to 280V, 47 to 63Hz.
**Control DC Outputs** - 0-20/4-20mA into 500ohm max, 0-10/2-10/0-5V into 500ohm min. with 2% over and underdrive applied to control outputs. Accuracy typically +/- 0.25%.
**Communications** - 2 Wire RS485, 1200 to 19200 Baud, Modbus & ASCII protocol (selectable).
**Digital Input** - Selects between 2 Setpoints or Auto/Manual control using volt free or TTL input

**Operating & Environmental**

**Temperature & RH** - 0 to 55°C (-20 to 80°C storage), 20% to 95%RH non-condensing.
**Power Supply** - 100-240Vac 50/60Hz (standard) 7.5VA ; 20-48Vac 50/60Hz (option) 7.5VA & 22-65Vdc (option) 4W.
**Front Panel Protection** - IEC IP66 (Behind panel protection is IP20).
**Standards** - CE, UL & ULC. recognized.
West 8100+ Process Control

Dimensions

Connection Details

Field Reconfiguration

Order Code

Input
Jumper-free configuration for any type (no extra parts required)

Option Slot 1
- Relay Output........................... PO1-C10
- Linear mA/V DC Output............. PO1-C21
- SSR Driver Output................... PO1-C50
- Triac Output........................... PO1-C80

Option Slot 2
- Relay Output........................... PO2-C10
- Linear mA/V DC Output............. PO2-C21
- SSR Driver Output................... PO2-C50
- Triac Output........................... PO2-C80

Option Slot 3
- Relay Output........................... PO3-C10
- Linear mA/V DC Output............. PO3-C21
- SSR Driver Output................... PO3-C50
- Triac Output........................... PO3-C80

Power Supply

Option Slot A
- Digital Input............................ PA1-W03
- Remote Setpoint Input (Basic)PA1-W04
- RS485 Comms.............................. PA1-W06

Option Slot B
- Remote Setpoint Input (Full)...PB1-W0R

Order Code

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<thead>
<tr>
<th>Input Type</th>
<th>Option Slot 1</th>
<th>Option Slot 2</th>
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<tbody>
<tr>
<td>3 Wire RTD or DC mV</td>
<td>Not fitted</td>
<td>Not fitted</td>
</tr>
<tr>
<td>Thermocouple</td>
<td>0</td>
<td>0</td>
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<tr>
<td>DC mA</td>
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<td>1</td>
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<tr>
<td>DC Voltage</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>

Option Slot 1
- Not fitted
- Relay
- DC for SSR
- DC 0-10V
- DC 0-20mA
- DC 0-5V
- DC 2-10V
- DC 4-20mA
- Triac

Option Slot 2
- Not fitted
- Relay
- DC Driver for SSR
- DC 0-10V
- DC 0-20mA
- DC 0-5V
- DC 2-10V
- DC 4-20mA
- Triac

Option Slot 3
- Not fitted
- Relay
- DC Driver for SSR
- DC 0-10V
- DC 0-20mA
- DC 0-5V
- DC 2-10V
- DC 4-20mA
- Transmitter Power Supply