The 4100+ updates our popular 4100 controller. With its improved interface, technical functionality and field flexibility, the West 4100+ is not only backwards compatible with the 4100, but provides a range of new features.

- 1/4 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 13mm & 10mm 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 Linear** - 0-20/4-20mA, 0-50/10-50mV, 0-5/1-5/0-10/2-10V. Scaleable -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, 0-100mA, 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.
### Dimensions

<table>
<thead>
<tr>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>96mm</td>
<td>64mm</td>
</tr>
<tr>
<td>100mm</td>
<td>92mm +0.5</td>
</tr>
</tbody>
</table>

### Connection Details

**Option 1**
- Relay
- Transmitter PSU
- DC or SSR Drive
- Field Reconfiguration: Jumper-free configuration for any type

**Option 2**
- Digital Input
- Remote Setpoint Input (Basic)
- RS485 Communications

**Option 3**
- Linear mA/V DC Output
- SSR Driver Output
- Triac Output
- Field Reconfiguration: Jumper-free configuration for any type

### Field Reconfiguration

**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: PO2-C10
- Linear mA/V DC Output: PO2-C21
- SSR Driver Output: PO2-C50
- 24VDC Transmitter PSU: PO2-W08

**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

<table>
<thead>
<tr>
<th>Input Type</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>/</th>
<th>X</th>
<th>X</th>
<th>/</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Wire RTD or DC mV</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermocouple</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC mA</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC Voltage</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Option Slot 1**
- Not fitted: 0
- Relay: 1
- DC for SSR: 2
- DC 0-10V: 3
- DC 0-20mA: 4
- DC 0-5V: 5
- DC 2-10V: 6
- DC 4-20mA: 7
- Triac: 8

**Option Slot 2**
- Not fitted: 0
- Relay: 1
- DC Driver for SSR: 2
- DC 0-10V: 3
- DC 0-20mA: 4
- DC 0-5V: 5
- DC 2-10V: 6
- DC 4-20mA: 7
- Triac: 8

**Display Color**
- 0: Red Upper & Lower
- 1: Green Upper & Lower
- 2: Red Upper, Green Lower
- 3: Green Upper, Red Lower

**Power Supply**
- 0: 100-240V AC
- 1: 24-48V AC or DC

**Option Slot A**
- Not fitted: 0
- RS485 Communications: 1
- Digital Input: 3
- Remote Setpoint Input (Basic): 4

**Option Slot B**
- Not fitted: 0
- Relay: 1
- DC Driver for SSR: 2
- DC 0-10V: 3
- DC 0-20mA: 4
- DC 0-5V: 5
- DC 2-10V: 6
- DC 4-20mA: 7
- Transmitter Power Supply: 8