

The 6100+ updates our popular 6100 controller. With its improved interface, technical functionality and field flexibility, the West 6100+ is not only backwards compatible with the 6100, but provides a range of new features.



- 1/16 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

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

Inputs

Thermocouple - J, K, C, R, S, T, B, L, N & PtRh20%vsPtRh40%. Scalable within selected range.

RTD - 3 Wire PT100, 50ohm 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. 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) - 0-20/4-20mA, 0-5/0-10/2-10V. Scaleable -1999 to 9999; Local/Remote selected from 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

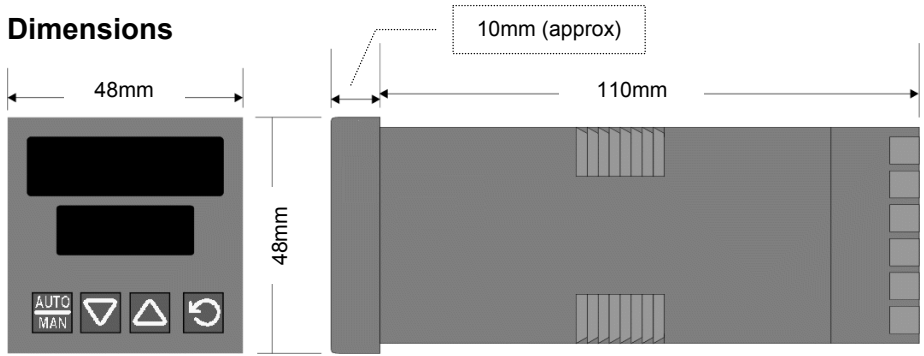
Temperature & RH - 0 to 55°C (-20 to 80°C storage), 20% to 95%RH non-condensing.

Power Supply - 100-240Vac 50/60Hz (standard) 7.5VA ; 20-48Vac 50/60Hz (option) 7.5VA & 22-65Vdc (option) 4W.

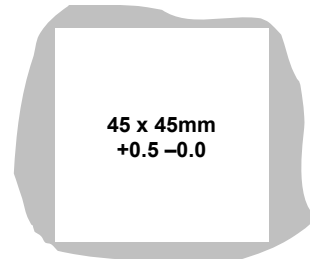
Front Panel Protection - IEC IP66 (Behind panel protection is IP20).

Standards - CE, UL & ULc. recognized.

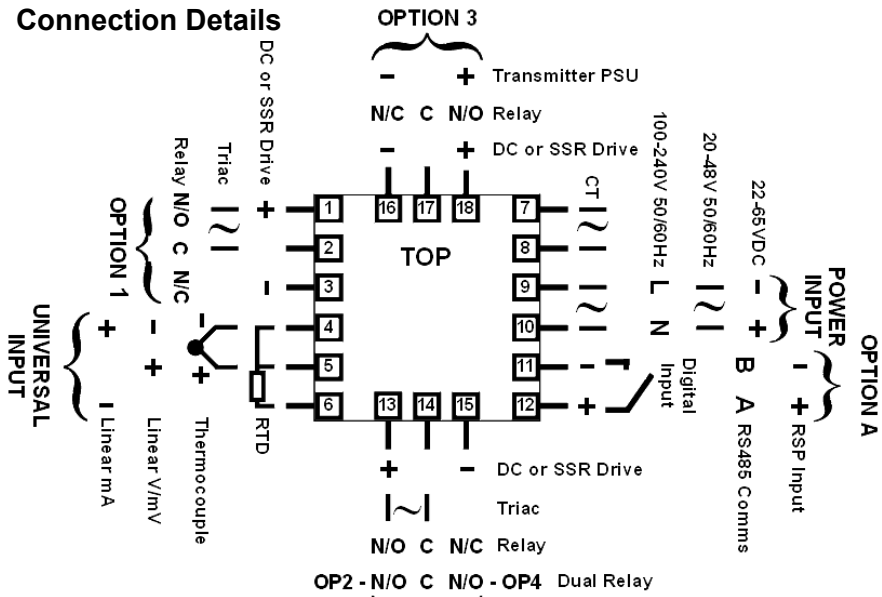
Dimensions



Cut-out



Connection Details



Field Reconfiguration

Input

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

| | |
|------------------------------------|--------------------|
| Option Slot 1 | Part Number |
| Relay Output..... | PO1-C10 |
| Linear mA/V DC Output..... | PO1-C21 |
| SSR Driver Output..... | PO1-C50 |
| Triac Output..... | PO1-C80 |
| Option Slot 2 | Part Number |
| Relay Output..... | PO2-C10 |
| Linear mA/V DC Output..... | PO2-C21 |
| SSR Driver Output..... | PO2-C50 |
| Triac Output..... | PO2-C80 |
| Option Slot 3 | Part Number |
| Relay Output..... | PO2-C10 |
| Linear mA/V DC Output..... | PO2-C21 |
| SSR Driver Output..... | PO2-C50 |
| 24VDC Transmitter PSU..... | PO2-W08 |
| Option Slot A | Part Number |
| Digital Input..... | PA1-W03 |
| Remote Setpoint Input (Basic)..... | PA1-W04 |
| RS485 Comms..... | PA1-W06 |

Order Code



| | |
|----------------------|---|
| Input Type | |
| 3 Wire RTD or DC mV | 1 |
| Thermocouple | 2 |
| DC mA | 3 |
| DC Voltage | 4 |
| 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 |
| 2 | 24-48V AC or DC |
| | Option Slot A |
| 0 | Not fitted |
| 1 | RS485 Communications |
| 3 | Digital Input |
| 4 | Basic Remote Setpoint Input |
| | Option Slot 3 |
| 0 | Not fitted |
| 1 | Relay |
| 2 | DC Driver for SSR |
| 3 | DC 0-10V |
| 4 | DC 0-20mA |
| 5 | DC 0-5V |
| 6 | DC 2-10V |
| 7 | DC 4-20mA |
| 8 | Transmitter Power Supply |