

6100+ 1/16 DIN Process Controller



With its improved interface, technical functionality and field flexibility, the West 6100+ gives you the best in comprehensive control.

- Jumperless configuration
- Auto Detected Hardware
- Process & Loop alarms
- Modbus & ASCII Comms
- Auto or Manual Tuning
- Heat/Cool Operation
- Ramping setpoint
- Dual Setpoint Selection



Technical Data

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 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 / AND. Also 1 loop alarm for process control security. Process alarms have adjustable hysteresis.
Human Interface	4 button operation, dual 4 digit 10mm & 8mm high LED displays, optional choice of colors (Red/Red, Red/Green, Green/Red or Green/Green), plus 5 LED indicators
PC Configuration	Off-line configuration from serial port to dedicated config socket (comms option not required)

Input

Thermocouple	J, K, C, R, S, T, B, L, N & PtRh20%vsPtRh40%.
RTD	3 Wire PT100, 50Ω per lead maximum (balanced)
DC Linear	0-20mA, 4-20mA, 0-50mV, 10-50mV, 0-5, 1-5, 0-10, 2-10V. Scaleable -1999 to 9999, with adjustable decimal point
Impedance	>10MΩ for Thermocouple and mV ranges, 47KΩ for V ranges and 5Ω 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

Outputs & Options

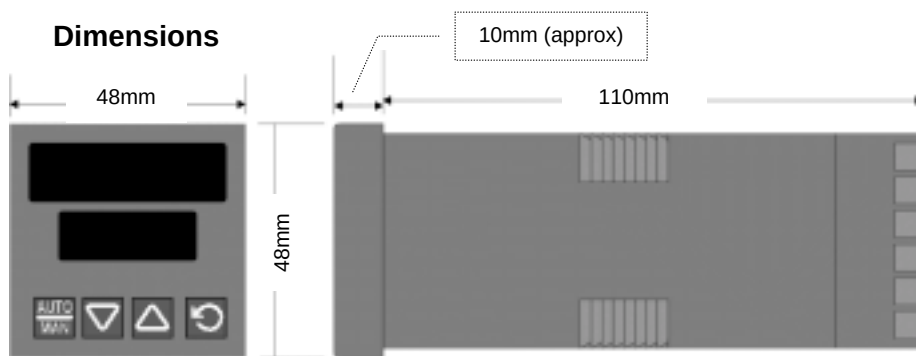
Control & Alarm Relays	Contacts SPDT 2 Amp resistive at 240V AC, >500,000 operations
Control SSR Outputs	Drive capability >10V DC in 500Ω minimum
Solid State (Triac) Outputs	0.01 to 1 Amp AC, 20 to 280Vrms, 47 to 63Hz
DC Outputs	0-20mA, 4-20mA into 500Ω max, 0-10V, 2-10V, 0-5V into 500Ω min. Control outputs have 2% over/under drive applied. Accuracy +/- 0.25% at 250Ω (degrades linearly to 0.5% for increasing burden to specified limits)

Communications	2 Wire RS485, 1200 to 19200 Baud, Modbus and ASCII protocol (selectable)
Digital Input	Selects between 2 Setpoints or Auto/Manual control. Volt free or TTL input

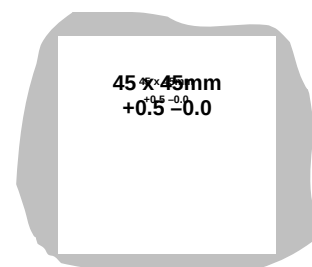
Operating & Environmental

Temperature & RH	0 to 55°C (-20 to 80°C storage), 20% to 95% RH non-condensing
Power Supply	100 to 240V 50/60Hz 7.5VA (optional 20 to 48V AC 7.5VA/22 to 65V DC 5W)
Front Panel Protection	IEC IP66 (Behind panel protection is IP20)
Standards	CE, UL & ULC recognised

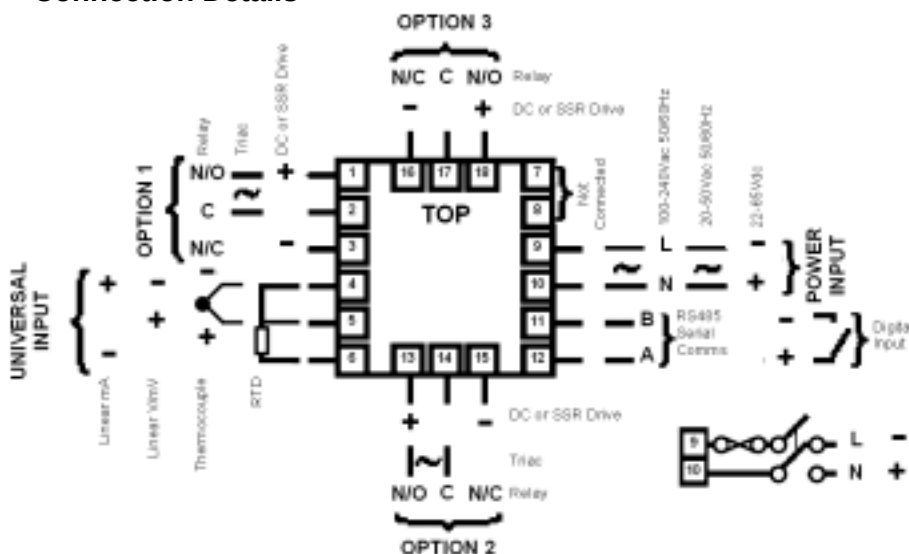
Dimensions



Cut-out



Connection Details



Field Reconfiguration

Input

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

Option Slot 1

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

Option Slot 2

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

Option Slot 3

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

Option Slot A

RS485 Comms **PA1-W06**
Digital Input..... **PA1-W03**

Order Code

P6101 - X - X - X - X - X - X - X

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	STANDARD 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

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

*Red upper/Green lower is standard stock configuration
Other configurations may extend delivery

PC Configuration Software for Windows 98 or higher Part Number: **PS1-CON**

In accordance with our policy of continuous improvement, we reserve the right to change specifications from those shown in this document