

Product Specification

West P6100 ¹/₁₆Din Process Controller



With its improved interface, technical functionality and field flexibility, the West 6100 gives you the best in comprehensive control for most temperature and process control loops.

- Jumperless Configuration
- Auto Detected Hardware
- Process & Loop Alarms
- Modbus & ASCII Comms
- Auto or Manual Tuning
- Heat/Cool Operation
- Ramping Setpoint
- Remote/Dual Setpoint Options





Technical Data

Features

Control Types Auto/Manual **Output Configuration**

Alarm 1 & 2 Types

Human Interface

PC Configuration

Input

Thermocouple RTD

DC Linear

Impedance Accuracy Sampling

Sensor Break Detection

Outputs & Options

Control & Alarm Relays Control SSR Driver Outputs **Triac Outputs** DC Linear Outputs

Transmitter Power Supply Communications Digital Input

Remote Setpoint Input

Operating & Environmental

Temperature & RH Power Supply Front Panel Protection Standards

Full PID with Pre-tune, Self-tune, manual tuning, or On-Off control. Heat only or heat & cool

Selectable from front panel or via digital input, with bumpless transfer

Up to 3 possible, for control, alarm, 24VDC transmitter power supply or retransmit of process value or setpoint

Process high, process low, SP deviation, band, logical OR / AND. Also 1 loop alarm for process control security. Process alarms have adjustable hysteresis.

4 button operation, dual 4 digit 10mm & 8mm high LED displays, optional choice of colours (Red/Red, Red/Green, Green/Red or Green/Green), plus 5 LED indicators

Off-line configuration from PC serial port to dedicated config socket (comms option not required). Configuration Software for Windows 98 or higher. West Part Number: PS1-CON

J, K, C, R, S, T, B, L, N & PtRh20%vsPtRh40%.

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

0 to 20mA, 4 to 20mA, 0 to 50mV, 10 to 50mV, 0 to 5V, 1 to 5V, 0 to 10V, 2 to 10V.

Scaleable -1999 to 9999, with adjustable decimal point

>10M Ω for Thermocouple and mV ranges, 47K Ω for V ranges and 5 Ω for mA ranges

±0.1% of input range ±1 LSD (T/C CJC better than 1°C)

4 per second, 14 bit resolution approximately

<2 seconds (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

Contacts SPDT 2 Amp resistive at 240V AC, >500,000 operations

Drive capability >10V DC in 500Ω minimum 0.01 to 1 Amp AC, 20 to 280Vrms, 47 to 63Hz

0 to 20mA, 4 to 20mA into 500 Ω max, 0 to 10V, 2 to 10V, 0 to 5V into 500 Ω min.

Control outputs have 2% over/under drive applied. Accuracy $\pm 0.25\%$ at 250Ω (degrades

linearly to 0.5% for increasing burden to specified limits)

Output 24VDC (nominal) into 910Ω minimum to power external devices

2 Wire RS485, 1200 to 19200 Baud, Modbus and ASCII protocol (selectable)

Selects between 2 setpoints or Auto/Manual control. Volt free or TTL input

0 to 20mA, 4 to 20mA, 0 to 5V, 1 to 5V, 0 to 10V or 2 to 10V. Scaleable -1999 to 9999.

Local/Remote setpoint selected from front panel

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

100 to 240V 50/60Hz 7.5VA (optional 20 to 48V AC 7.5VA/22 to 65V DC 5 watts)

IEC IP66 (Behind panel protection is IP20)

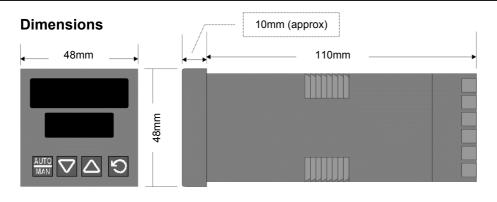
CE, UL & ULC recognised



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Cut-out

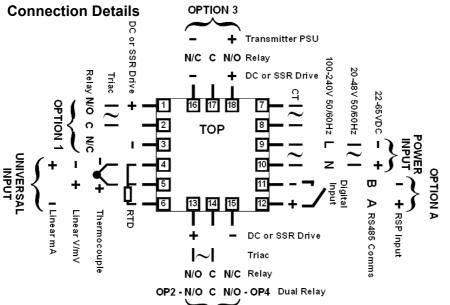


Field Reconfiguration

Input

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

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



Order Code

DC 0-5V

DC 2-10V DC 4-20mA

Option Slot 2 Not fitted

DC Driver for SSR

Triac

Relay

DC 0-10V DC 0-20mA

DC 0-5V DC 2-10V

Triac

DC 4-20mA

P6100 х **Input Type** 3 Wire RTD or DC mV 1 2 Thermocouple DC mA 3 DC Voltage 4 **Option Slot 1** Not fitted Relay 1 DC for SSR 2 DC 0-10V 3 DC 0-20mA 4

OPTION 2

Display Colour Red Upper & Lower 0 Green Upper & Lower 1 2 Red Upper, Green Lower 3 Green Upper, Red Lower **Power Supply** 100-240V AC 2 24-48V AC or DC **Option Slot A** 0 Not fitted

RS485 Communications

Digital Input

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

1

5

6

7

8

0

1

2

4 5

6

7

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