

West 6100 1/16 DIN Process Controller



The West 6100 combines technical functionality, field flexibility and ease of use to give you the best in comprehensive process control.

- Heat/Cool operation
- Two process alarms
- Loop alarm
- RS485 comms
- Auto/Manual Tuning
- Ramping setpoint
- Dual setpoint selection
- Configuration via PC



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, with bumpless transfer |
| Output Configuration | Up to 3 total. Max 2 for control (Heat & Cool), max 2 for Alarms, max 1 for retransmit Process Value or Setpoint |
| Alarm 1 & 2 Types | Process high, process low, SP deviation, band, logical OR and hysteresis. Also 1 loop alarm |
| Human Interface | 4 button operation, dual 4 digit 10mm & 8mm high LED displays, plus 3 LED indicators |
| PC Configuration | Off-line configuration from serial port to dedicated config socket (comms option not required) |

Input

| | |
|------------------------|---|
| Thermocouple | J, K, R, S, T, B, L, & N. |
| RTD | 3 Wire PT100, 50Ω per lead maximum (balanced) |
| DC Linear | 0-20/4-20mA, 0-50/10-50mV, 0-5/1-5/0-10/2-10V. Scaleable -1999 to 9999, dec point available |
| Impedance | >100MΩ for Thermocouple and mV ranges, 47KΩ for V ranges and 4.7Ω for mA ranges |
| Accuracy | +/- 0.25% of input span +/- 1 LSD (T/C CJC better than 0.7°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. |

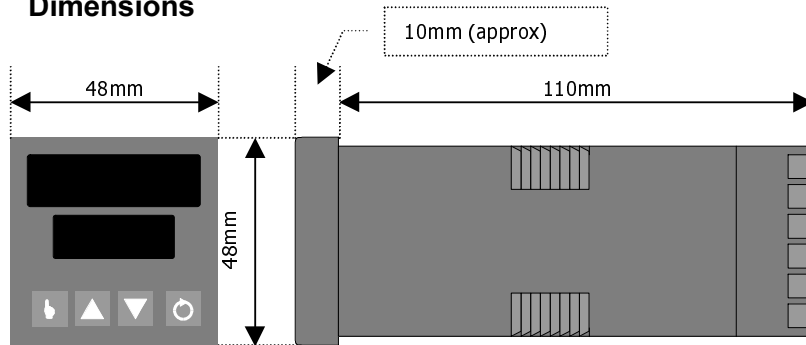
Outputs & Options

| | |
|-----------------------------|--|
| Control & Alarm Relays | Contacts SPDT 2 Amp resistive at 240V AC, >500,000 operations |
| Control SSR Outputs | Drive capability >4.2V DC in 1KΩ minimum (10V 500Ω version available) |
| Solid State (Triac) Outputs | 0.01 to 1 Amp AC 20 to 280V, 47 to 63Hz |
| Control DC Outputs | 0-20/4-20mA into 500Ω max, 0-10/0-5V into 500Ω min. Accuracy typically +/- 0.5% |
| Retransmit Outputs | 0-20/4-20mA into 500Ω max, 0-10/0-5V into 500Ω min. Accuracy typically +/- 0.25% |
| Communications | 2 Wire RS485, 1200 to 9600 Baud, West ASCII (Modbus Optional) |
| Dual Setpoint Selection | Selects between 2 SP's using volt free or TTL input (SP1 = -0.6 to 0.8V, SP2 = 2 to 24V) |

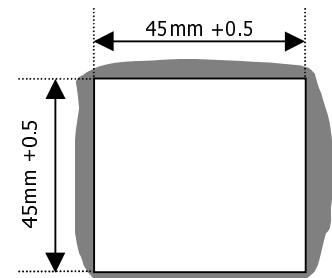
Operating & Environmental

| | |
|-----------------------------|---|
| 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 50V AC 7.5VA/22 to 65V DC 4W) |
| Front Panel Protection | IEC IP66 (Behind panel protection is IP20) |
| Approvals and Certification | CE, UL & ULc |

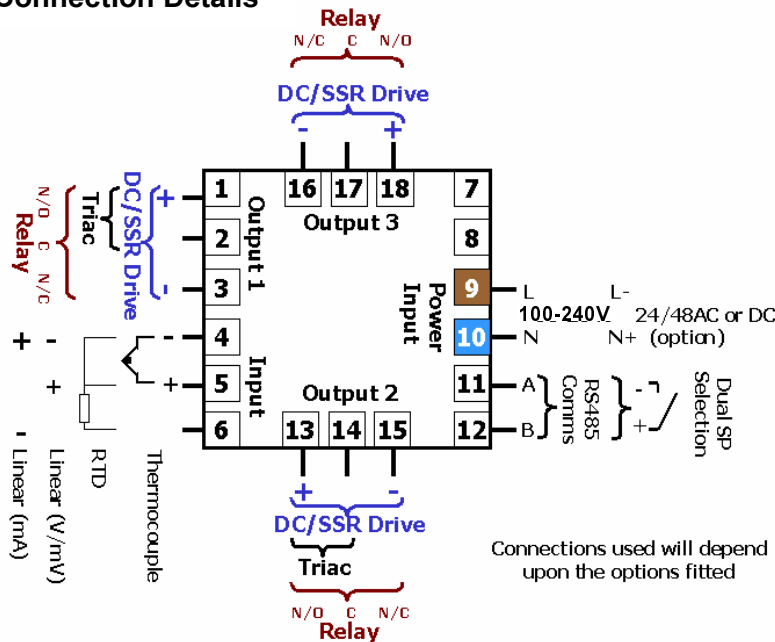
Dimensions



Cut-out



Connection Details



Field Reconfiguration

Input

Configurable to any type, no extra parts required

Output 1

Type is fixed as ordered. Either Relay/SSR (selectable), Triac or DC Linear (selectable for mV, mA, Volts)

Output 2

Configurable as Cool O/P or Alarm via plug-in Relay, SSR, Triac or DC Linear modules

Output 3

Configurable as Alarm via plug-in Relay or SSR modules, or retransmit using DC Linear module

Option Slot

Configurable as RS485 comms or dual setpoint selection, via plug-in modules

Order Code

N6100 - X - X - X - X - XX - XXX

Input type

| | |
|---------------------|---|
| 3 Wire RTD or DC mV | 1 |
| Thermocouple | 2 |
| DC mA | 3 |
| DC Voltage | 4 |

Output 1

| | |
|--------------------|---|
| Relay Control | 1 |
| DC for SSR Control | 2 |
| DC 0-10V Control | 3 |
| DC 0-20mA Control | 4 |
| DC 0-5V SP Control | 5 |
| DC 4-20mA Control | 7 |
| Triac Control | 8 |

Output 2

| | |
|-------------------------------|---|
| Not fitted | 0 |
| Relay Control or Alarm 2 | 1 |
| DC for SSR Control or Alarm 2 | 2 |
| DC 0-10V Control | 3 |
| DC 0-20mA Control | 4 |
| DC 0-5V Control | 5 |
| DC 4-20mA Control | 7 |
| Triac Control | 8 |

Special Variants

| | |
|------|--|
| Blan | Special Variant not required |
| S09 | MODBUS instead of West ASCII (requires RS485 option) |
| S14 | 10V DC SSR outputs (requires SSR output codes) |

Options and Power Supply

| | |
|----|--|
| 00 | No Options/100-240V AC line supply |
| 02 | No Options/24-48V AC or DC line supply |
| 10 | RS485 Comms/100-240V AC line supply |
| 12 | RS485 Comms/24-48V AC or DC supply |
| 30 | Dual Setpoint/100-240V AC line supply |
| 32 | Dual Setpoint/24-48V AC or DC supply |

Output 3

| | |
|---|--------------------------------|
| 0 | Not fitted |
| 1 | Relay Alarm 1 output |
| 2 | DC for SSR Alarm 1 output |
| 3 | DC 0-10V Re-Transmit PV or SP |
| 4 | DC 0-20mA Re-Transmit PV or SP |
| 5 | DC 0-5V Re-Transmit PV or SP |
| 7 | DC 4-20mA Re-Transmit PV or SP |

PC Configuration Software for Windows 95 or higher Part Number: GCON-1000

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

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