

West 6100+, 8100+ & 4100+ Temperature & Process Controllers



- Jumperless Configuration
- Auto Detected Hardware
- Process & Loop Alarms
- Modbus & ASCII Comms
- Auto or Manual Tuning
- Heat/Cool Operation
- Ramping Setpoint
- Remote/Dual Setpoint Options
- Available in 1/16, 1/8 & 1/4 DIN Formats



With their improved interface, technical functionality and field flexibility, the West 6100+, 8100+ and 4100+ give you the best in comprehensive control for most temperature and process control loops.

Specification

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, alarm, 24VDC transmitter power supply 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 (6100+, 8100+) and 13mm & 10mm high (4100+) LED displays, optional choice of colours (Red/Red, Red/Green, Green/Red or Green/Green), plus 5 LED indicators |
| PC Configuration | 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 |

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 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 |
| 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 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 |

Outputs & Operations

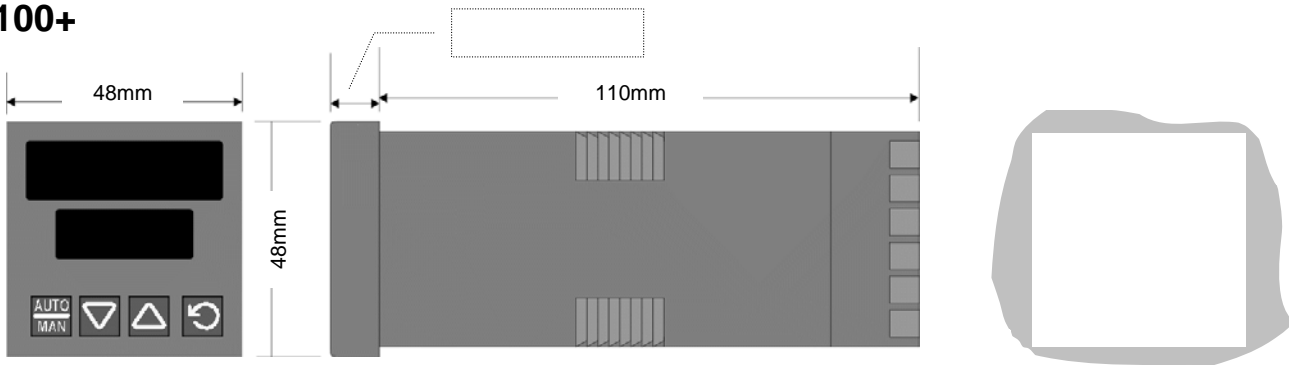
| | |
|----------------------------|--|
| Control & Alarm Relays | Contacts SPDT 2 Amp resistive at 240V AC, >500,000 operations |
| Control SSR Driver Outputs | Drive capability >10V DC in 500 minimum |
| Triac Outputs | 0.01 to 1 Amp AC, 20 to 280Vrms, 47 to 63Hz |
| DC Linear Outputs | 0 to 20mA, 4 to 20mA into 500Ω max, 0 to 10V, 2 to 10V, 0 to 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) |
| Transmitter Power Supply | Output 24VDC (nominal) into 910Ω minimum to power external devices |
| 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 |
| Remote Setpoint 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 |

Operating & Environmental

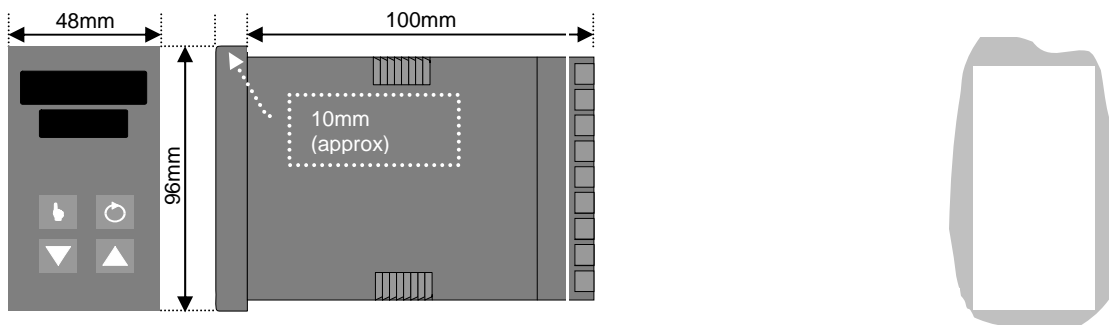
| | |
|------------------------|--|
| Temperature & RH | 0 to 55°C (-20 to 80°C storage), 20% to 95% RH non-condensing |
| Power Supply | 100 to 240V 50/60Hz 7.5VA (optional 20 to 48V AC 7.5VA/22 to 65V DC 5 watts) |
| Front Panel Protection | IEC IP66 (Behind panel protection is IP20) |
| Standards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

Dimensions

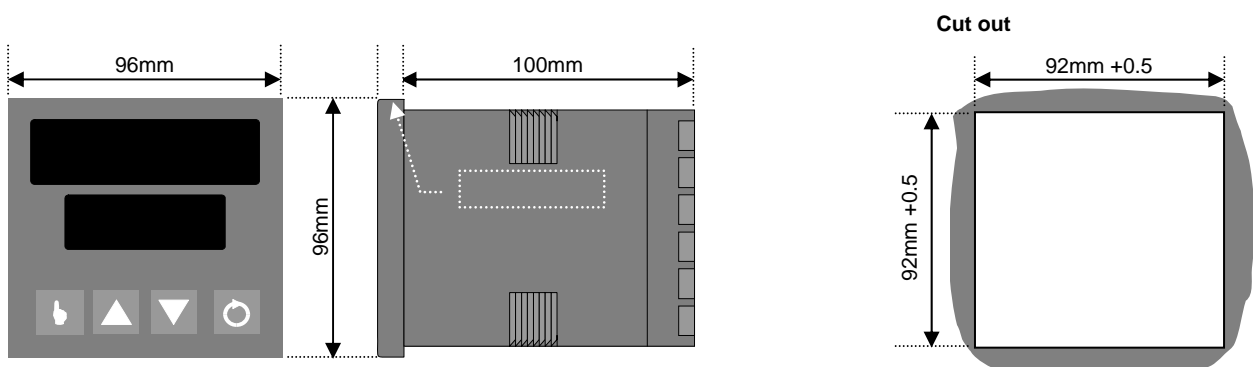
6100+



8100+



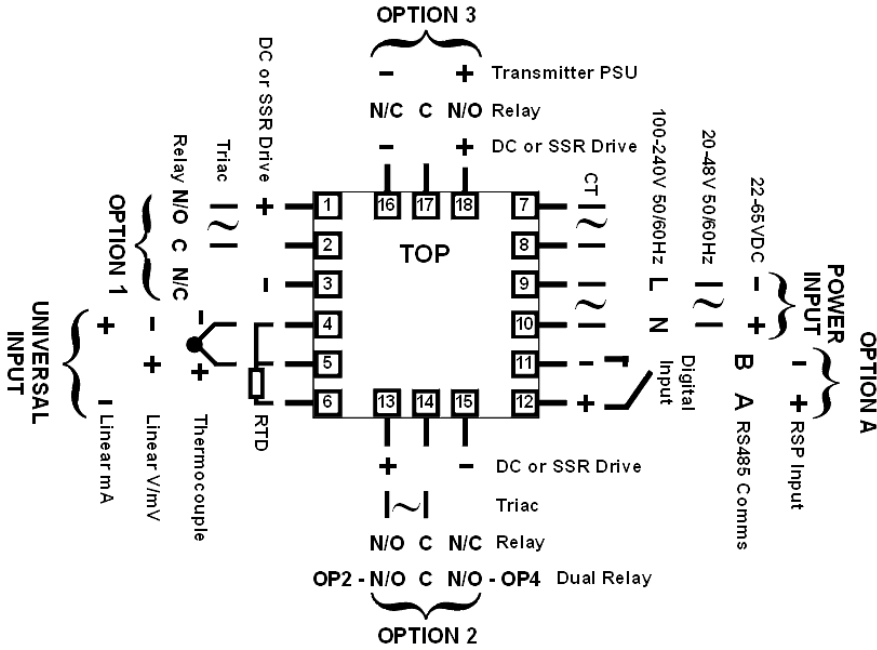
4100+



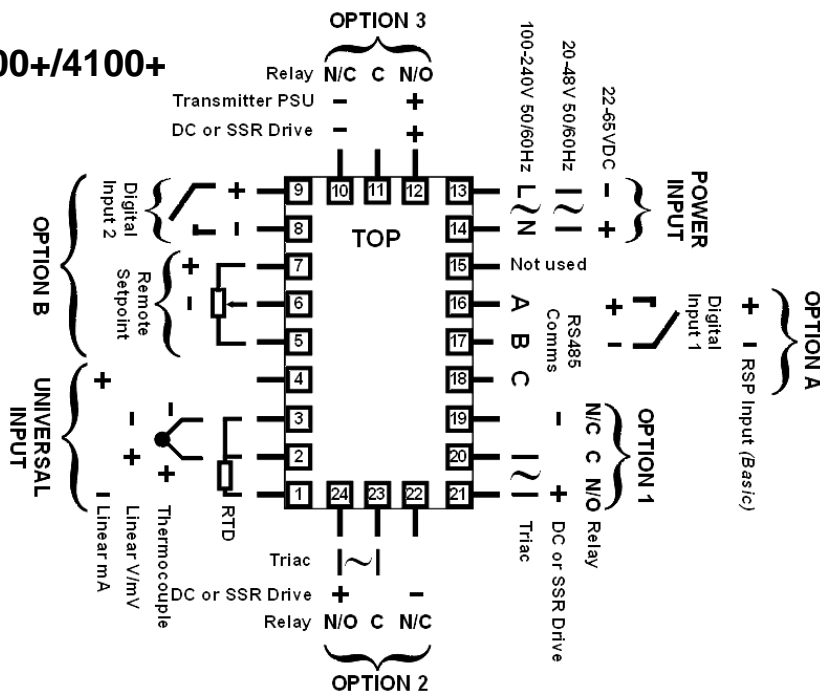
Wiring Connections

6100+

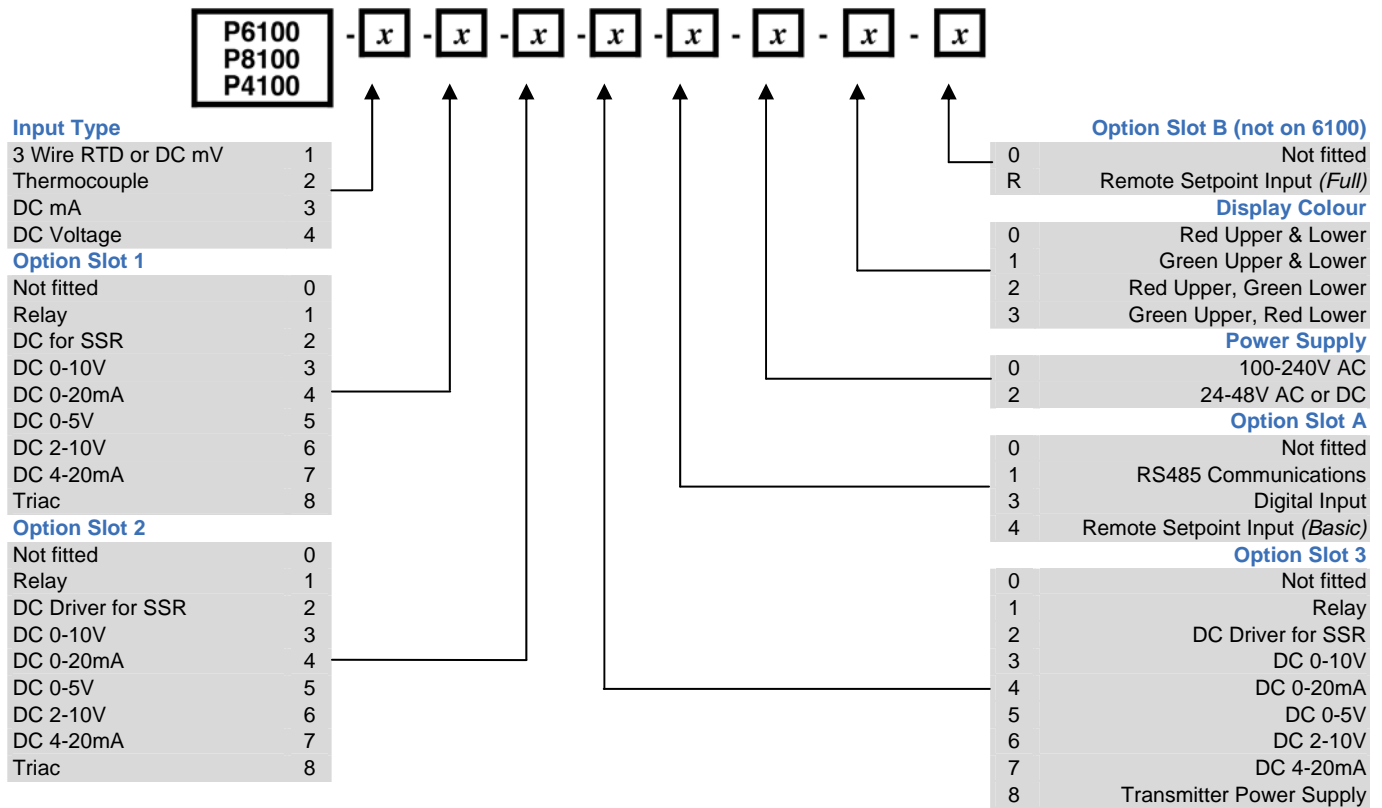
Field Reconfiguration



8100+/4100+



Ordering Code



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Brochures and datasheets are available for the complete range of West Control Solutions products, contact your local sales office or visit our website at: www.west-cs.com for more information.

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