

## West P4700 1/4Din Limit Alarm Unit



The West 4700+ is a programmable safety cut out with optional outputs for annunciators and alarms. A latched relay cuts power to your process if safe values are exceeded. The unit must be reset before the process can continue. It has the improved Plus Series hardware and user interface for optimal ease of use.

- High or Low Trip Points
- 5 Amp Latching Limit Relay
- Remote Reset Option
- Exceed & Relay Indicators
- Jumperless Configuration
- Auto Detected Hardware
- Modbus & ASCII Comms
- Two Annunciators or Alarms



### Technical Data

#### Features

Output Configuration

Up to 3 possible, for latching trip relays, alarm/annunciator relays, 24VDC transmitter power supply or retransmit of process value or limit trip setpoint

Alarm 1 & 2 Types

Process high, process low, Limit SP deviation, band, logical OR alarms or trip annunciator. Alarms have fully adjustable hysteresis.

Output Reset Action

Limit output can be reset only when exceed condition is absent. Local or remote reset options.

Annunciator Reset Action

Annunciator output can be reset at any time. Local or remote reset options.

Human Interface

4 button operation, dual 4 digit 13mm & 10mm high LED displays, optional choice of colours (Red/Red, Red/Green, Green/Red or Green/Green), plus 4 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 secs (except zero based DC ranges), Limit trip and annunciators activate. High alarms activate for Temperature and mV ranges, low alarms activate for, mA or V ranges

#### Outputs & Options

Limit Trip Relay Outputs

Latching SPDT, contacts 5Amp resistive at 240V AC, >100,000 operations

Alarm Relay Outputs

Non-latching SPDT, contacts 2Amp resistive at 240V AC, >500,000 operations

SSR Driver Alarm Outputs

Drive capability >10V DC in 500Ω minimum

Triac Alarm Outputs

0.01 to 1 Amp AC, 20 to 280Vrms, 47 to 63Hz

DC Linear Retransmit Outputs

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

Volt free or TTL input. -0.6 to 0.8V or contact closure resets latched relays and annunciators

#### Operating & Environmental

Temperature & RH

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

Power Supply

100 to 240V ±10% at 50/60Hz 7.5VA, (optional 20 to 48V AC 7.5VA/22 to 65V DC 5 watts)

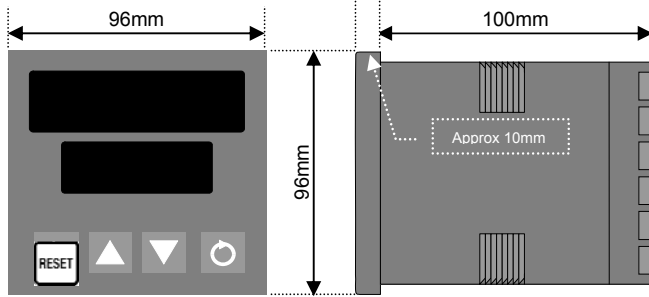
Front Panel Protection

IEC IP66 (Behind panel protection is IP20)

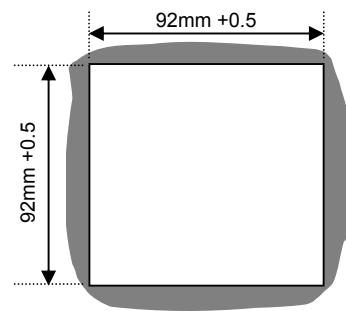
Standards

FM, CE, UL & ULC recognised

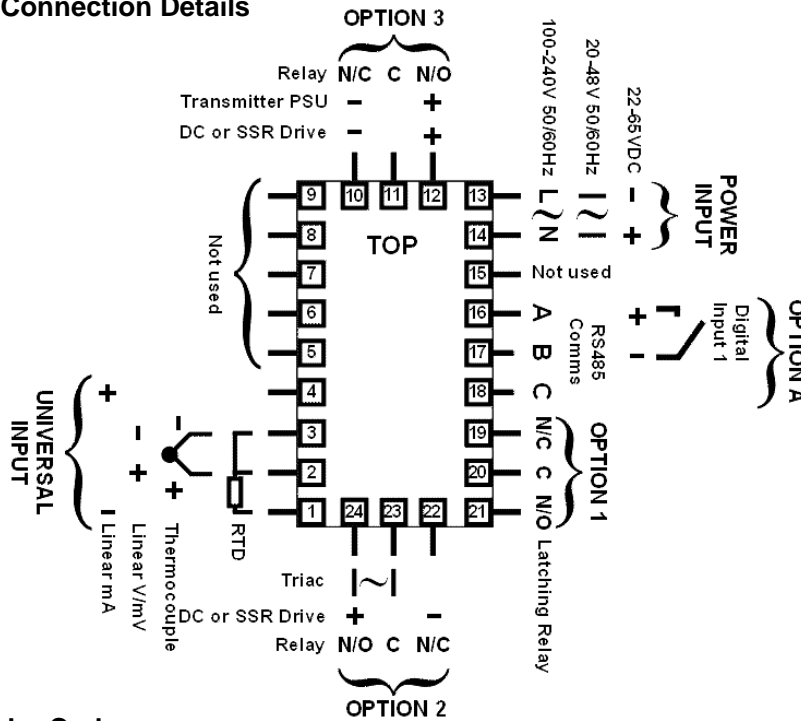
**Dimensions**



**Cut-out**



**Connection Details**



**Field Reconfiguration**

**Input**

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

**Option Slot 1**

- Latching Limit Relay ..... **Fixed**
- 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**
- 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**

- Latching Limit Relay (fixed) ..... 1

**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 Colour**

- 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

**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



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- Single Loop Controllers
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