

West P8700 1/8Din Limit Alarm Unit



The West 8700+ 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

Alarm 1 & 2 Types

Output Reset Action

Annunciator Reset Action

Human Interface

PC Configuration

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

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

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

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

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 4 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

Input

Thermocouple

RTD

DC Linear

Impedance

Accuracy

Sampling

Sensor Break Detection

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

>10MΩ for Thermocouple and mV ranges, 47KΩ for V ranges and 5Ω 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 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

Alarm Relay Outputs

SSR Driver Alarm Outputs

Triac Alarm Outputs

DC Linear Retransmit Outputs

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

Non-latching SPDT, contacts 2Amp 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 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)

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

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

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

Operating & Environmental

Temperature & RH

Power Supply

Front Panel Protection

Standards

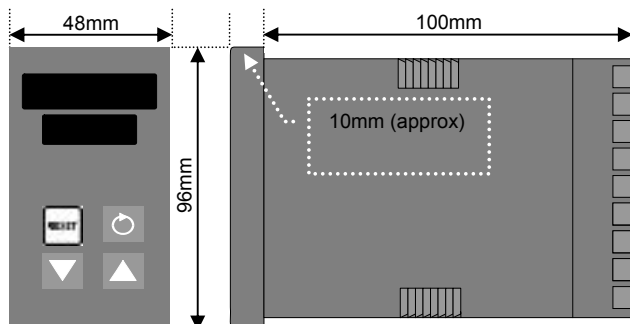
0 to 55°C (-20 to 80°C storage), 20% to 95% RH non-condensing

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

IEC IP66 (Behind panel protection is IP20)

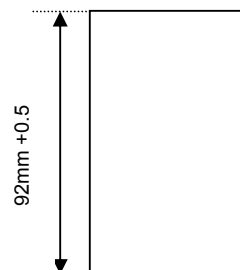
FM, CE, UL & ULC recognised

Dimensions

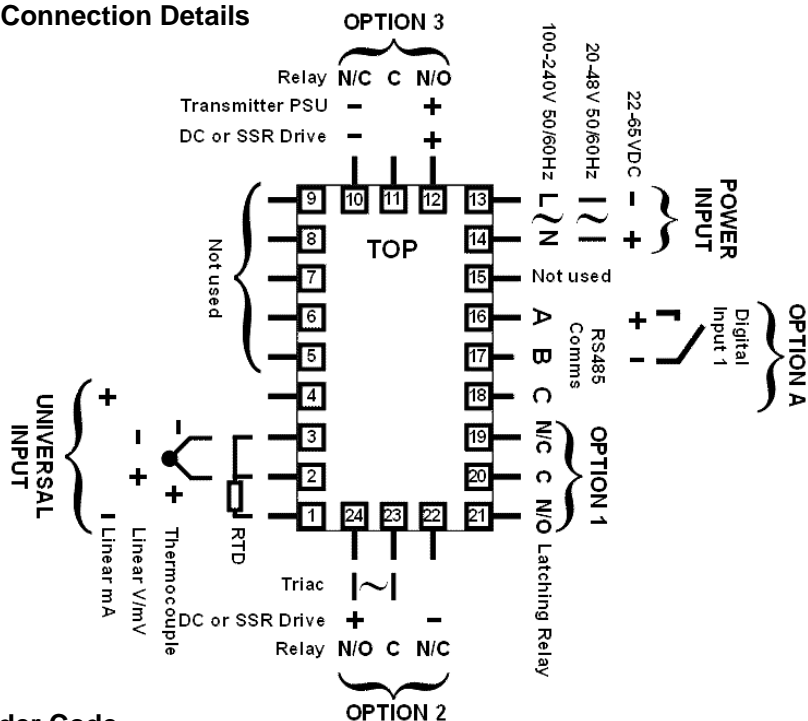


Cut-out

45mm +0.5



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

P8700 - [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

Latching Limit Relay (fixed)	1
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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