

# West 4400

## 1/4 DIN Profiler Controller

# ISE, Inc.



The West 4400 is a powerful Programmer, packed with innovative features to control complex processes. Metal treatment and environmental chambers are typical applications for the 4400.

- Free-form programming
- Delayed start
- Auto Hold
- Modbus & ASCII comms
- Program End/Run relay
- Power fail recovery
- Self-tuning algorithms
- PC support software



## Technical Data

### Features

Control Types

Full PID with Pre, Self or Manual Tuning. Heat, Heat & Cool or Valve Motor applications

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 PV or SP

Alarm 1 & 2 Types

Process high, process low, SP deviation, band, logical OR and hysteresis. Also 1 loop alarm

Human Interface

6 buttons, 13mm & 10mm high LED's, 8 digit message display, plus status LED indicators

PC Configuration

Off-line configuration, profile editing & tracker, via config socket (comms option not required)

### Profiles

Number of programs

8, each with 16 free-form segments (Ramp/Dwell/Join/Repeat/End). Max seg. length 99 hrs 59 mins

Auto Hold

Fully programmable. Holds program if PV is outside of specified hold band.

EOP Relay

Fitted as standard. Indicates program running or program ended.

Delayed start

Max 99 hours 59mins delay from initiation to program start

Real Time Clock Option

Allows programmed start on specific days, and intelligent power fail recovery

### 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 (\*low for RTD)

### Outputs & Options

Control & Alarm Relays

Contacts SPDT 2Amp resistive at 240V AC, >500,000 operations (EOP relay 5A 240V >100,000)

Control SSR Outputs

Drive capability >4.3V DC in 250Ω (10V 500Ω version available)

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%

Event Output Option

4 program segment event relays, contacts SPST 5Amp resistive at 240V AC, >100,000 operations

Remote Program Ctrl

Volt-free/TTL inputs for Run/Hold, Abort, X60 (mins/secs) and program selection.

Communications

2 Wire RS485, 1200 to 9600 Baud, West ASCII and Modbus (selectable)

### Operating & Environmental

Temperature & RH

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

Power Supply

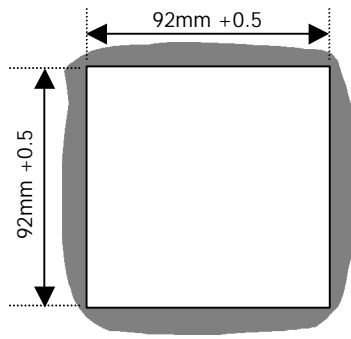
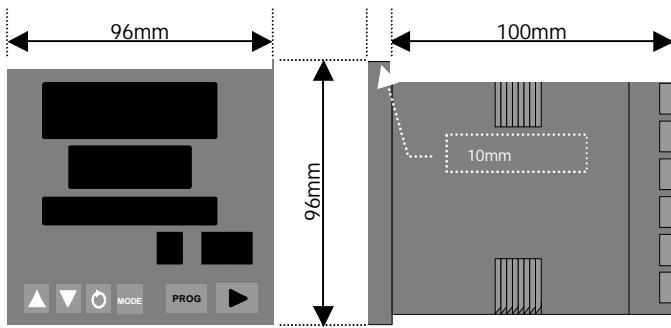
90 to 264V 50/60Hz (optional 20 to 55V AC/22 to 65V DC), approx 4 Watts

Front Panel Protection

IEC IP66 (Behind panel protection is IP20)

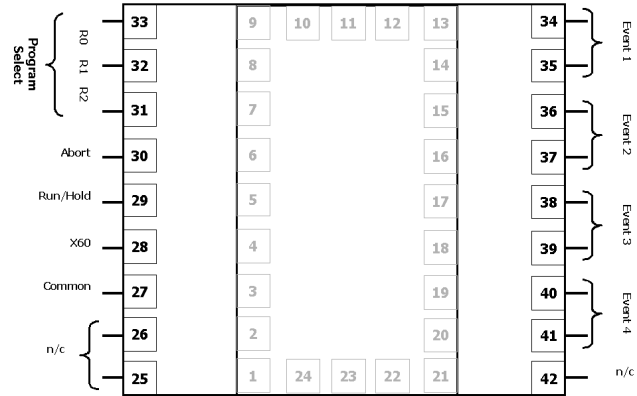
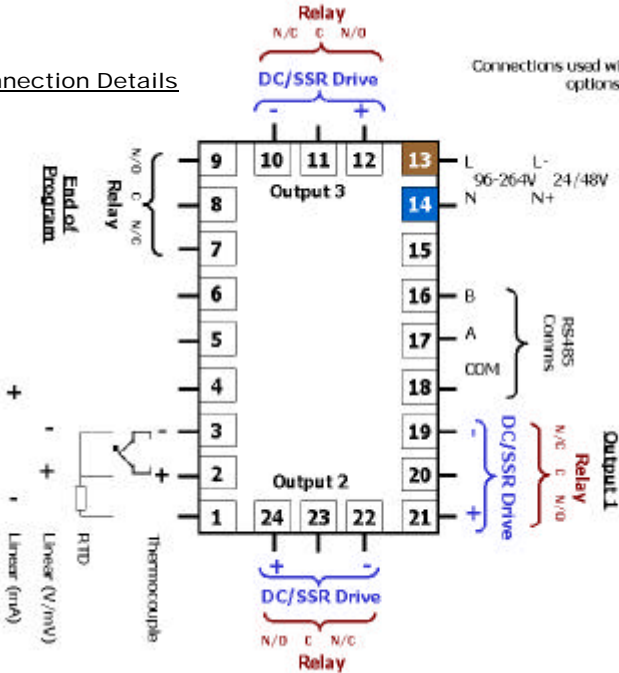
Approvals and Certification

CE, UL & ULc



**Connection Details**

Connections used will depend upon the options fitted



**Order Code**

**N4401/** Z **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

**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

**Advanced Options**

000	Not fitted
001	Real Time Clock (RTC)
010	Remote Programme Control
100	4 Event Outputs
011	Remote Prog Control/Real Time Clock
101	4Event Outputs Real/Time Clock
110	4 Event Outputs/Remote Prog Control
111	4 Event Outputs/Remote Prog/RTC

**Options and Power Supply**

00	No Options/90-264V AC supply
02	No Options/24-48V AC or DC supply
10	RS485 Comms/90-264V AC supply
12	RS485 Comms/24-48V AC or DC supply

**Output 3**

0	Not fitted
1	Relay Alarm 1
2	DC for SSR Alarm 1
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

<http://instserv.com>

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