4400 1/4 DIN Profiler Controller



Free-form programming

Delayed start

Auto Hold

Modbus & ASCII comms

Program End/Run relay

Power fail recovery

Self-tuning algorithms

PC support software

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.

Specification

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, 50 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	>100M for Thermocouple and mV ranges, 47K for V ranges and 4.7 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

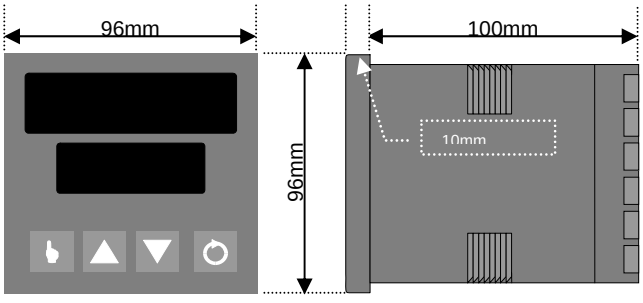
Control & Alarm Relays	Contacts SPDT 2Amp resistive at 240V AC, >500,000 operations (EOP relay 5A 240V >100,000)
Control SSR Outputs	Drive capability >4.3V DC in 250 (10V 500 version available)
Control DC Outputs	0-20/4-20mA into 500 max, 0-10/0-5V into 500 min. Accuracy typically +/- 0.5%
Retransmit Outputs	0-20/4-20mA into 500 max, 0-10/0-5V into 500 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)

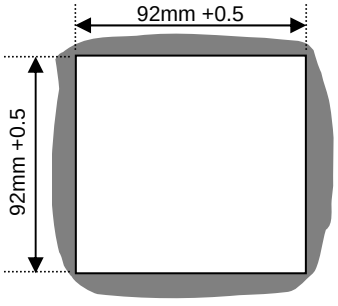
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Operating & Environmental

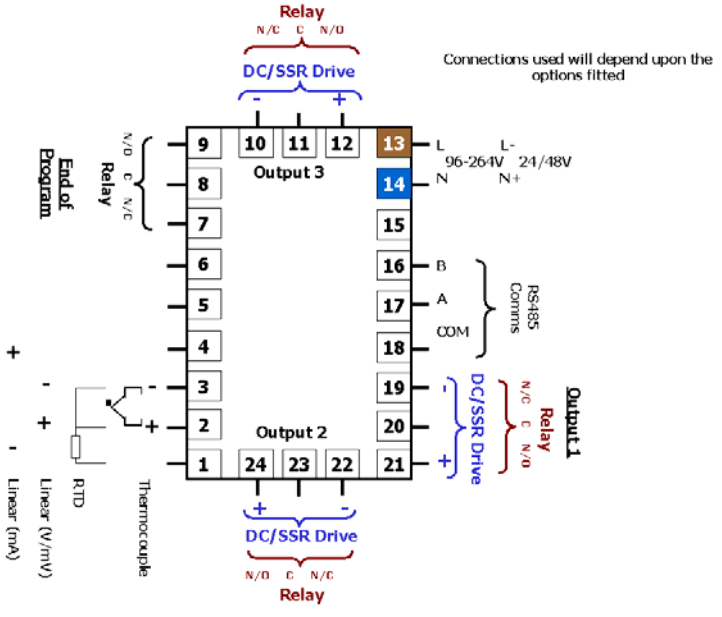
Temperature & RH	0 to 55°C (-20 to 80°C storage), 20% to 95%RH non-condensing
Power Supply	100 to 240V 50/60Hz 7.5VA (optional 20 to 50V AC 7.5VA/22 to 65V DC 4W)
Front Panel Protection	IEC IP66 (Behind panel protection is IP20)
Approvals and Certification	CE, UL & ULc

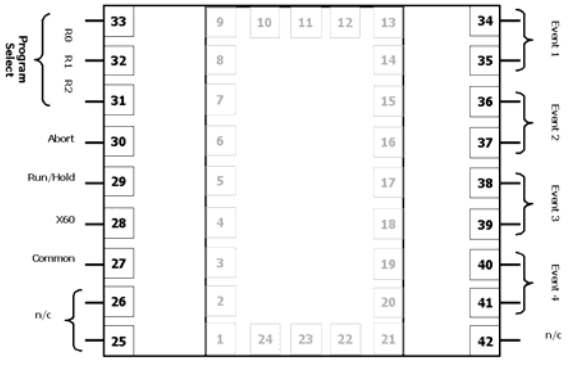
Dimensions





Wiring Connections





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Ordering Code

N4400 - 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 & Power Supply

00	No Options/100-240V AC supply
02	No Options/24-48V AC or DC supply
10	RS485 Comms/100-240V 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

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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.

Specifications are subject to change without notice, as a result of continual development and improvement, E&OE

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