

West 6400 1/16 DIN Profiler Controller



The 6400 is one of the most powerful profilers of its size available. It features our proven RaPID fuzzy logic control algorithm, for faster, more accurate control. Four programs can be held in memory.

- Free-form programming
- Event/Profile active outputs
- Delayed start
- Remote start
- Guaranteed soak
- Modbus comms
- Power fail recovery



Technical Data

Features

Control Types
Auto/Manual
Output Configuration
Alarm 1 & 2 Types
Human Interface
PC Configuration

Profiles

Number of Programs

Delayed Start
Guaranteed Soak
Program Cycles
Ramp Rate Definition
Power Loss Recovery

Input

Thermocouple
RTD
DC Linear
Impedance
Accuracy
Sampling
Sensor Break Detection

Outputs & Options

Control/Alarm/Event Relay

DC for SSR
DC Control/Retransmit

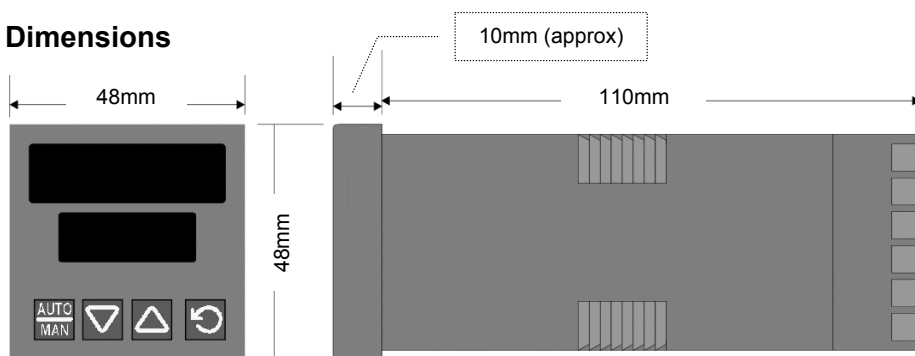
Solid State (Triac)
Remote Run-Hold
Communications

Operating & Environmental

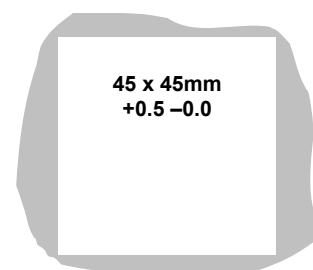
Temperature & RH
Power Supply
Front Panel Protection
Approvals and Certification

PID with Pre-tune and RaPID fuzzy logic, or Manual Tuning. Heat or Heat/Cool, applications
Selectable from front panel, with bumpless transfer
Up to 3 total. Max 2 for control (Heat & Cool), max 2 for Alarms, max 1 for retransmit PV or SP
Process high, process low, setpoint deviation and band
4 buttons, 10mm & 8mm high LED's, plus run-hold, tune, event & profile/control status LED's
Off-line configuration & profile editing via config socket (comms option not required)
4, each with 16 free-form segments (Ramp/Dwell/End). Max segment length 99 hours 59 minutes
Max 99 hours 59mins delay from initiation to program start
Holds program if PV is outside of specified hold band during dwell segments.
1 to 9999 or infinite (continuously re-starts program at end)
Either ramp rate, or time to final setpoint
Hot (continue profile from point of power fail) or Cold (end profile and return to controller mode)
J, K, R, S, T, B, L, & N.
3 Wire PT100, 50Ω per lead maximum (balanced)
0-20/4-20mA, 0-50/10-50mV, 0-5/1-5/0-10/2-10V. Scaleable -1999 to 9999, dec point available
>100MΩ for Thermocouple and mV ranges, 47KΩ for V ranges and 4.7Ω for mA ranges
+/- 0.25% of input span +/- 1 LSD (T/C CJC better than 0.7°C)
4 per second, 14 bit resolution approximately
<2 secs (except zero based DC ranges), control O/P's turn off, *high alarms activate (*low for RTD inputs)
Contacts SPDT 2Amp resistive at 240V AC, >500,000 operations
Drive capability >4.2V DC in 1KΩ minimum (10V 500Ω version available)
0-20/4-20mA into 500Ω max, 0-10/0-5V into 500Ω min. Accuracy, Control OP +/- 0.5%, Retransmit +/- 0.25%
0.01 to 1 Amp AC 20 to 280V, 47 to 63Hz
Volt free or TTL input (Hold = -0.6 to 0.8V or contact open, Run = 2 to 24V or contact close)
2 Wire RS485, 1200 to 9600 Baud, Modbus protocol
0 to 55°C (-20 to 80°C storage), 20% to 95%RH non-condensing
100 to 240V 50/60Hz 7.5VA (optional 20 to 50V AC 7.5VA/22 to 65V DC 4W)
IEC IP66 (Behind panel protection is IP20)
CE, UL & ULc

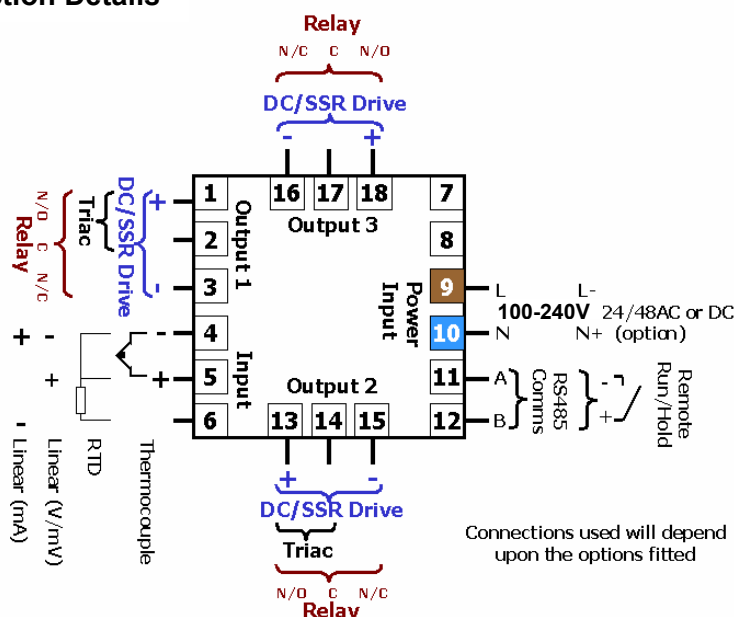
Dimensions



Cut out



Connection Details



Field Reconfiguration

Input

Configurable to any type, no extra parts required

Output 1

Type is fixed as ordered. Either Relay/SSR (selectable), Triac or DC Linear (selectable for mV, mA, Volts)

Output 2

Configurable as Cool O/P or Alarm, Event or Profile Active via plug-in Relay, Cool O/P or Alarm via plug-in SSR module, or Cool O/P only via Triac or DC Linear modules

Output 3

Configurable as Alarm, Event or Profile Active via plug-in Relay, Alarm via plug-in SSR module, or retransmit using DC Linear module

Option Slot

Configurable as RS485 comms or remote run-hold, via plug-in modules

Order Code

N6400 - **X** - **X** - **X** - **X** - **XX** - **XXX**

3 Wire RTD or DC mV	1
Thermocouple	2
DC mA	3
DC Voltage	4

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
	8

Not fitted	0
Relay Ctrl, Alarm 2, Event or	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
Triac Control	8

Blank	Special variant not required
S14	10V DC SSR outputs (requires SSR output codes)

00	No Options/100-240V AC line supply
02	No Options/24-48V AC or DC line supply
10	RS485 Comms/100-240V AC line supply
12	RS485 Comms/24-48V AC or DC line supply
30	Remote Run-Hold/100-240V AC line supply
32	Remote Run-Hold/24-48V AC/DC line supply

0	Not fitted
1	Relay Ctrl, Alarm 1, Event or Profile Active
2	DC for SSR Alarm 1 output
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

In accordance with our policy of continuous improvement, we reserve the right to change specifications from those shown in this document.