

# 6400 1/16 DIN Profiler Controller



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



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.

## Specification

### Features

|                      |   |
|----------------------|---|
| Control Types        | PID with Pre-tune and RaPID fuzzy logic, or Manual Tuning. Heat or Heat/Cool, 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, setpoint deviation and band  |
| Human Interface      | 4 buttons, 10mm & 8mm high LED's, plus run-hold, tune, event & profile/control status LED's     |
| PC Configuration     | Off-line configuration & profile editing via config socket (comms option not required)          |

### Profiles

|                      |   |
|----------------------|---|
| Number of Programs   | 4, each with 16 free-form segments (Ramp/Dwell/End). Max segment length 99 hours 59 minutes         |
| Delayed Start        | Max 99 hours 59mins delay from initiation to program start  |
| Guaranteed Soak      | Holds program if PV is outside of specified hold band during dwell segments.                        |
| Program Cycles       | 1 to 9999 or infinite (continuously re-starts program at end)                                       |
| Ramp Rate Definition | Either ramp rate, or time to final setpoint   |
| Power Loss Recovery  | Hot (continue profile from point of power fail) or Cold (end profile and return to controller mode) |

### 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 inputs) |

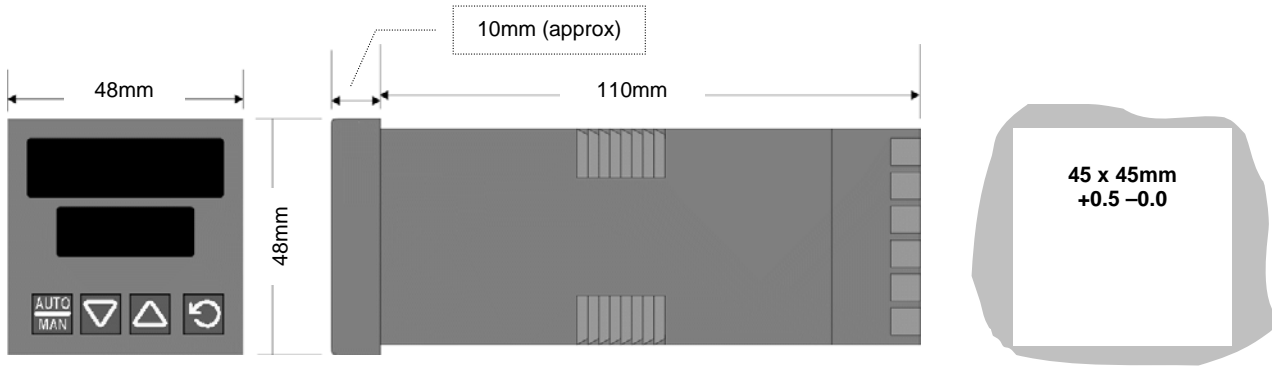
### Outputs & Options

|                           |   |
|---------------------------|---|
| Control/Alarm/Event Relay | Contacts SPDT 2Amp resistive at 240V AC, >500,000 operations  |
| DC for SSR                | Drive capability >4.2V DC in 1K minimum (10V 500 version available)                                   |
| DC Control/Retransmit     | 0-20/4-20mA into 500 max, 0-10/0-5V into 500 min. Accuracy, Control OP +/- 0.5%, Retransmit +/- 0.25% |
| Solid State (Triac)       | 0.01 to 1 Amp AC 20 to 280V, 47 to 63Hz   |
| Remote Run-Hold           | Volt free or TTL input (Hold = -0.6 to 0.8V or contact open, Run = 2 to 24V or contact close)         |
| Communications            | 2 Wire RS485, 1200 to 9600 Baud, Modbus protocol  |

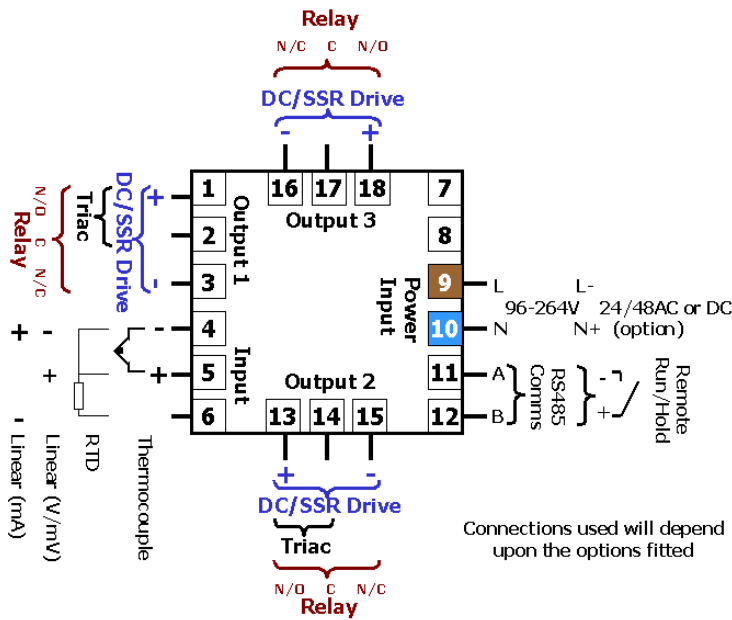
### Operating and Environmental

|                             |   |
|-----------------------------|---|
| 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



### 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

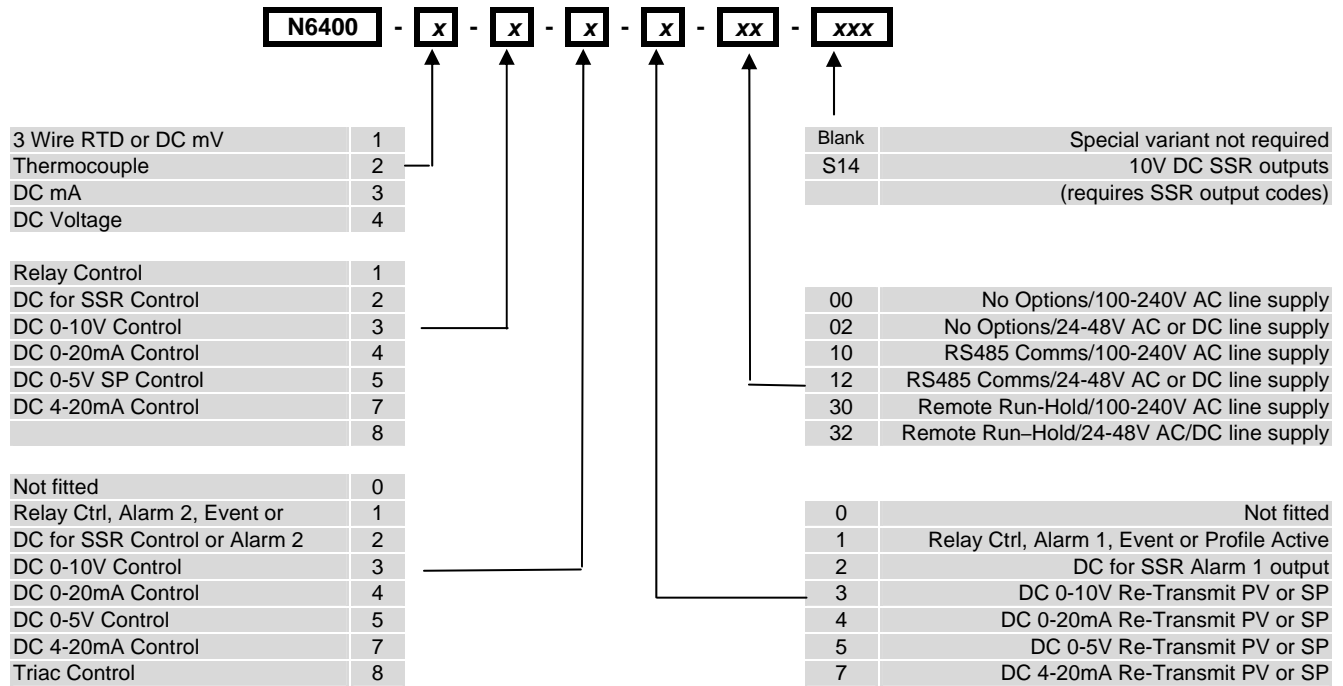
#### Output 3

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

## Ordering Code



## West Control Solutions – International Sales and Support

### CHINA

Danaher Setra-ICG (Tianjin Co., Ltd.  
No.28 Wei 5 Road,  
The Micro-Electronic Industry Park TEDA,  
Xiqing District, Tianjin 300385  
Tel: +86 22 8398 8098 Fax: +86 22 8398 8099  
Sales Hotline: 400 666 1802  
e-mail: tc.sales@danaher.com

### GERMANY

PMA Prozeß- und, Maschinen- Automation GmbH,  
Miramstraße 8, 7D -34123 Kassel  
Tel: +49 (561) 505-1307 Fax: +49 (561) 505-1710  
e-mail: mailbox@pma-online.de

### USA

West Control Solutions  
1675 Delany Road, Gurnee, IL 60031-1282  
Tel: 800 866 6659 Fax: 847 782 5223  
e-mail: custserv.west@dancon.com

### FRANCE

Hengstler SA, 69 Rue de la Belle Etoile  
Bat D - ZI Paris Nord II, 95700, Roissy  
Tel: +33 (1) 77 80 90 40 Fax:+33 (1) 77 80 90 50  
e-mail: info@westinstruments.com

### UNITED KINGDOM

West Control Solutions  
The Hyde Business Park, Brighton, East Sussex, BN2 4JU  
Tel: +44 (0)1273 606271 Fax: +44 (0)1273 609990  
e-mail: info@westinstruments.com

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](http://www.west-cs.com) for more information.

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