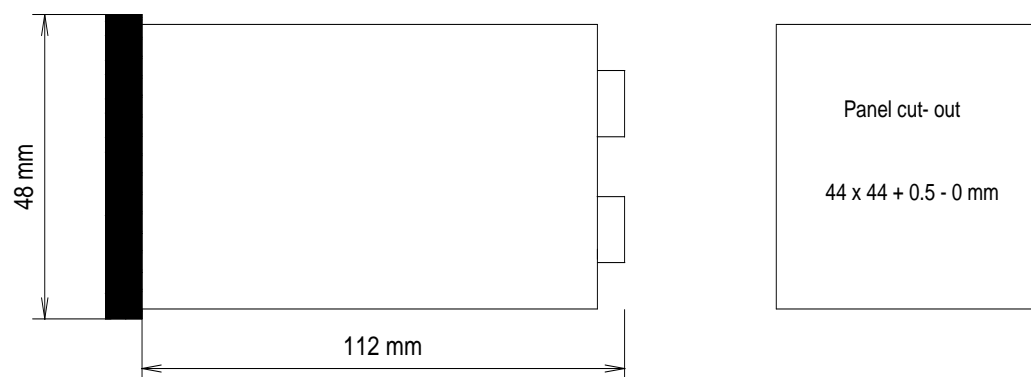


GENERAL SPECIFICATION

| | |
|--|---|
| Displays | 0.32" 4 digit High Efficiency Red 7 segment led display of process variable, 0.32" 4 digit High Efficiency Red 7 segment led display of setpoint and other variables Alarm Status Red leds. Heat Output Red led. Cool Output Green led. |
| Switches | Touch with Tactile Feedback. |
| Facia | Polyester, dustproof resistant to most liquids. |
| Case | Custom designed high impact plastic. |
| Terminals | 2 independent rear terminal blocks, rising clamp technology. |
| Dimensions | Overall 48 x 48 x 112 mm behind panel depth Cut out 45 x 45 mm to DIN 43700. |
| Weight | 180 grams approx. |
| Inputs (Fully configurable) | Thermocouple, type B, J, K, N, R, S, T, Resistance Thermometer (Pt100), 3 wire. Automatic lead compensation Linear Volts, 0 - 5V, 0 - 10V, Linear mA, 0-20 mA, 4-20 mA, (burden resistor of 3R3 mounted on rear terminals) Calibration overall 0.2% (For 10-50°C ambient) Including automatic CJC for thermocouple inputs Sampling rate 25 readings per second. |
| Sensor Failure | Thermocouple Open circuit detection, heat output off (Fail safe), Resistance thermometer Short circuit and open circuit detection. 4 - 20 mA Out of range detection. |
| Control | Three Term (P+I+D) fully adjustable : Proportional (Heat) 0.1 - 100.0% Proportional (Cool) 0.1 - 100.0% Integral 0 - 100.0 mins. Derivative 0 - 10.00 mins. Overshoot inhibition Adjustable for fast and slow response loads Heat/Cool Crossover + / - 99°C |
| Outputs | Channel 1 Heat : Logic, Relay (2A/240V), Analogue (isol.) 10V, 5V or mA. Channel 2 (Optional) Alarm Relay 2A/264V (changeover). Cool Logic; Relay 2A/264V (changeover). Channel 3 (Optional) Alarm Relay 2A/264V. |
| Serial Communications | Optional RS 232, RS 485 3 wire standard |
| Supply | 85 - 264 Volts 50 / 60 Hz |
| Power | 5VA Max. |
| Operating temperature | 0 - 50°C |

DIMENSIONAL DETAILS



TINY 4830 High performance 1/16 din (48 x 48 mm)
Quality Temperature / Process controllers for demanding applications where panel space is at a premium



- ▶ Compact Plug in 48 x 48 controllers
- ▶ Dual Bright LED Displays of process variable and setpoint
- ▶ Universal input (fully configurable) T/C, RTD, mA, mV or V
- ▶ Microprocessor based / surface mount technology
- ▶ Modular construction, plug in output boards, Relay, Logic, Analogue, plus 2 alarms
- ▶ Proven, sophisticated, P I D control algorithm
- ▶ Configurable ramp to setpoint facility
- ▶ Universal 85 - 264 Volts power supply
- ▶ Optional fully configurable alarms
- ▶ Optional cool output
- ▶ Optional serial communications RS 232, RS 485 (early 2003)
- ▶ Designed and made in Great Britain
- ▶ Two year parts and labour warranty

The TINY 4830 1/16 DIN Plug in Controller is a quality Temperature / Process controller featuring universal inputs and plug in output modules.

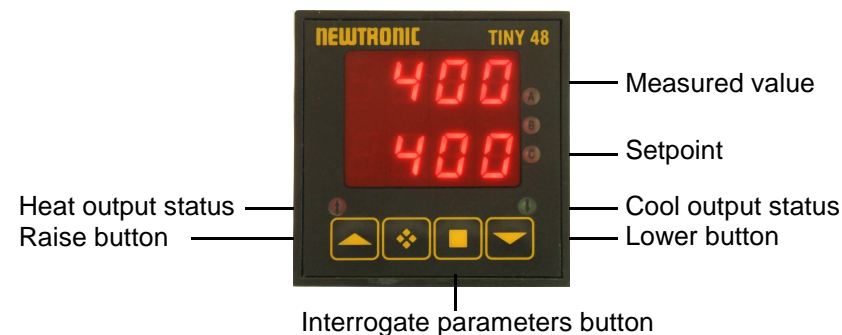
Features of the all new TINY 4830 controller include :

- Dual display giving continuous indication of both measured value and setpoint.
- Pushbuttons with positive tactile feel for ease of use.
- State of the art 16 bit CISC MCU.
- High resolution multi channel Analogue to Digital converter
- Surface mount technology.
- Universal input, thermocouple, RTD, linear DC.
- Universal 85 / 264 Volt power supply.
- Plug in modular construction.
- Sophisticated control algorithm, which adjusts the approach rate to setpoint thus minimising overshoot.
- Controllers may be supplied configured to incorporate an adjustable setpoint ramp, which limits the rate of setpoint change whenever the setpoint is adjusted.
- Though compact in size it is designed and manufactured to provide features, performance, stability and long reliable life associated with traditional larger format controllers.
- It is designed and manufactured to provide features, performance, stability and long reliable life associated with modern microprocessor based temperature controllers.
- Optional cool with 2 Amp time proportional relay output may be specified.
- Optional fully configurable alarms with 2 Amp relay outputs may be specified.
- Optional serial communications RS 232, RS 485.

Very simple to operate

The controller can be locked, so that the operator can only adjust the set temperature within a restricted range and interrogate the control parameters and alarms, but not adjust them.
Process applications include pressure control, flow control etc.

Clear, easy to use operator interface



Fully configured

All controllers are supplied fully tested and configured to your requirements they are ready to install and work. They may be reconfigured to a different thermocouple and temperature range in the manufacturers link mode.

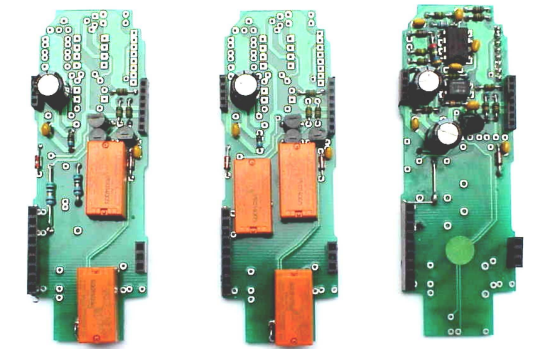
Warranty

All TINY 4830 controllers are covered by 2 years parts and labour warranty.

Applications

The high specification together with the compact size make the TINY 4830 controller ideal for such demanding applications such as temperature control of plastic extrusion machines, injection moulding machines, laboratory ovens, test chambers and small heat treatment furnaces.

Plug in modular controller with plug in output boards.



Logic heat plus alarms

Relay heat plus alarms

Analogue heat no alarms

ORDERING INFORMATION

| TINY 4830 | Sensor type | Minimum Range | Maximum Range | Channel 1 Output | Channel 2 Output | Channel 3 Output | Comms Option | Software Config. |
|------------------------------------|-------------|---------------|---------------|------------------|------------------|------------------|--------------|---|
| T.C Type K NiCr / NiAl | Range 1 | - 200 °C | 1300 °C | HR2 Heat relay | A1 Alarm relay | A2 Alarm relay | RS 232 | Software configuration. Sb Sensor break *Sb0 Standard* Sb1 Man power heat Sb2 Man power cool Sb3 Auto power heat Sb 4 Auto power cool Sd Sensor detect No auto recovery *Yes auto recovery* PU Power up / features *Stan Standard* Hold use last output Full Full o/p for 15 sec plus then Hold option Soft power 0-100% over defined time 0 - 600 Seconds Rate setpoint ramp *Factory default options |
| T.C Type J Fe / Con | Range 2 | - 200 °C | 800 °C | HLF Heat logic | CR2 Cool relay | 0 No channel 3 | RS 485 | |
| T.C Type R Pt 13% Rh | Range 3 | 0 °C | 1700 °C | HAN h Analogue | 0 No channel 2 | | 0 No Comms | |
| T.C Type S Pt 13% Rh | Range 4 | 0 °C | 1700 °C | H0-5 volts | | | | |
| T.C Type N Nicrosil / Nisil | Range 5 | - 200 °C | 1300 °C | H0-10 volts | | | | |
| T.C Type T Copper / Con | Range 6 | - 260 °C | 400 °C | H0-20 mA | | | | |
| T.C Type K NiCr / NiAl | Range 7 | 0.0 °C | 999.9 °C | H1-5 volts | | | | |
| T.C Type J Fe/Con | Range 8 | - 199.9 °C | 800 °C | H2-10 volts | | | | |
| T.C Type T Copper / Con | Range 9 | - 199.9 °C | 400.0 °C | H4-20 mA | | | | |
| T.C Type B Pt6% 30% Rh | Range 10 | 40 °C | 1800 °C | H5-0 volts | | | | |
| Pt 100 RTD | Range 16 | - 200 °C | 800 °C | H10-0 volts | | | | |
| Pt 100 RTD | Range 17 | - 199.9 °C | 800 0°C | H20-0 mA | | | | |
| 4 - 20 mA Linear | | | | H5-1 volts | | | | |
| 0 - 20 mA Linear | | 0 | 4000 | H10-2 volts | | | | |
| 0 - 10 Volts Linear | | 0 | 4.000 | H20-4 mA | | | | |
| 0 - 5 Volts Linear | | 0 | 40.00 | AR2 Alarm relay | | | | |
| 1 - 5 Volts Linear | | 0 | 400.0 | | | | | |
| 2 - 10 Volts Linear | | | | | | | | |

ORDER CODE EXAMPLES

| | | | | | | | | |
|-----------|-----------|-----|-------|------------|-----|----|-------|-----------|
| TINY 4830 | K Range 1 | 0 | 400 | HLF | CR2 | 0 | 0 | 0 Default |
| TINY 4830 | R Range 3 | 0 | 1400 | H0-5 Volts | A1 | A2 | RS232 | Rate |
| TINY 4830 | 4 - 20 mA | 0.0 | 232.0 | HR2 | 0 | 0 | RS485 | Sd No |