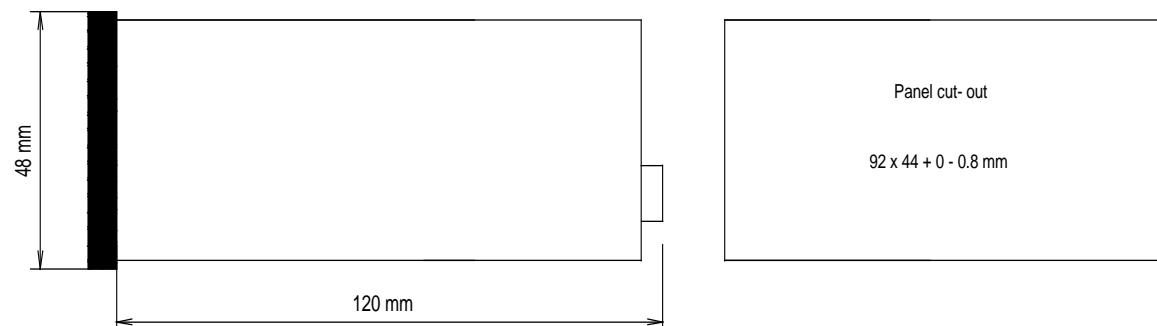


GENERAL SPECIFICATION

Displays	0.56" 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	Glass reinforced high impact plastic.
Terminals	Plug in rear terminal block, rising clamp technology.
Dimensions	Overall 48 x 96 x 120 mm behind panel depth Cut out 45 x 92 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



ECO 4830HL High performance 1/8 din (48 x 96 mm)
Quality Temperature / Process controllers featuring
Large 0.56" High Brightness LED process display



- ▶ 48 x 96 format controllers incorporating
- ▶ 0.56" Bright LED Display of process variable
- ▶ Continuous LED display of setpoint
- ▶ Universal input (fully configurable) T/C, RTD, mA, mV or V
- ▶ Microprocessor based / surface mount technology
- ▶ Proven, sophisticated, P I D control algorithm
- ▶ Configurable ramp to setpoint facility
- ▶ Universal 85 - 264 Volts power supply
- ▶ 120 mm behind panel depth
- ▶ 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 ECO 4830HL 1/8 DIN Controller is a quality Temperature / Process controller featuring universal inputs, a wide range of outputs, and optional fully configurable alarms

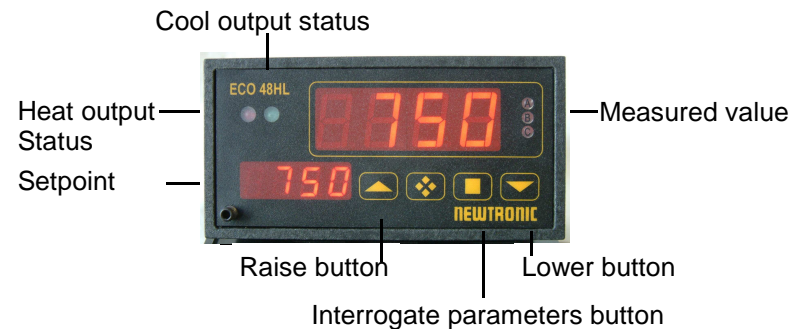
Features of the new ECO 4830HL controller include :

- The horizontal (HL) 48 x 96 format enables a large 0.56" 4 digit display to be incorporated for the display of measured value, together with a second display of 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.
- 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

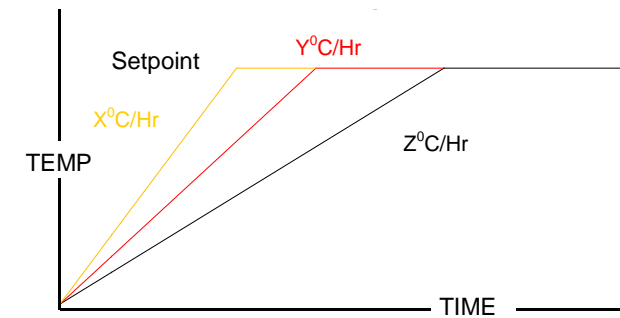
All ECO 4830HL controllers are covered by 2 years parts and labour warranty.

Applications

The 1/8 DIN horizontal (HL) format make the ECO 4830HL controller ideal for applications throughout industry and research needing a large, bright, easy to read display together with tight straight line control.

Configurable software options include:

Program setpoint rate



Other software options include:

Soft start of power 0-100% over a set time period of 0-600 seconds

Manual power control (Open loop) with open circuit thermocouple

Sensor fail detect and lockout

ORDERING INFORMATION

ECO 4830HL	Sensor type	Minimum Range	Maximum Range	Channel 1 Output	Channel 2 Output	Channel 3 Output	Software Config.
T.C Type K NiCr / NiAl	Range 1	- 200 °C	1300 °C	HR2 Heat relay	A1 Alarm relay	A2 Alarm relay	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	RS 232	
T.C Type R Pt 13% Rh	Range 3	0 °C	1700 °C	HAN h Analogue	0 No channel 2	RS 485	
T.C Type S Pt 13% Rh	Range 4	0 °C	1700 °C	H0-5 volts		0 No channel 3	
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 °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

ECO 4830HL	K Range 1	0	400	HLF	CR2	0	0 Default
ECO 4830HL	R Range 3	0	1400	H0-5 Volts	A1	A2	Rate
ECO4830HL	4 - 20 mA	0.0	232.0	HR2	0	RS232	Sd No