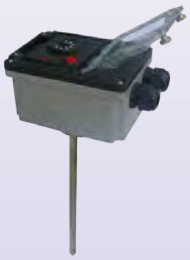
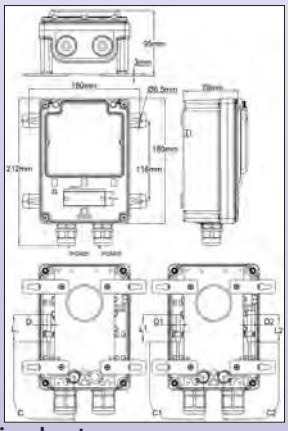
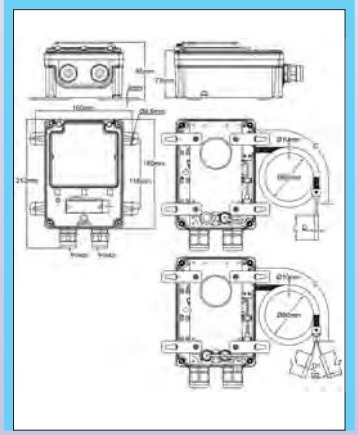
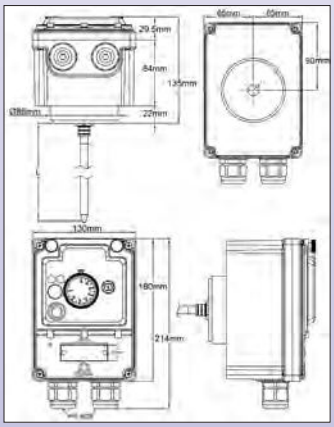
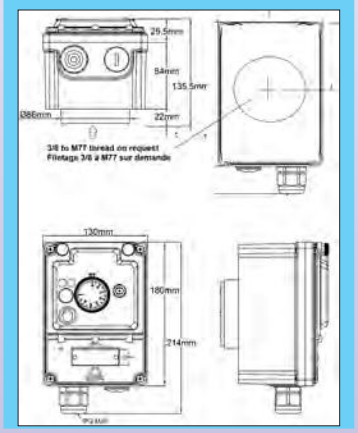
Main features

These products come in 4 different dimensional configurations, in control (One sensor) or control + high limit safety (2 sensors or one sensor + one bulb)

Y8 Ambient temperature measurement	Y8 Remote measurement	Y6 Rear rod measurement	Y7 Measurement on rear mounted immersion heater (We do not supply the immersion heater)



Main advantages :
- The simplest and most economical control systems of the Y8 electronic room temperature controls range.
- Heavy duty housing for outside use, IP65 and IK10.
- Instinctive understanding of the setting by the end customer.
- Adjustable temperature differential and heating or cooling action switch.

If open circuit or missing temperature sensor and if no power supply, output relay will open (Fail safe action)

Standard equipment :
- Knob with adjustable stop for positioning a mechanical limit at high or low setting.
- Red and green lights, indicating 230V in and out voltage.
- Fuse for internal circuit protection
- Illuminated on-off switch
- Soft grip backlit knob printed in °C
- 4 wall mounting removable legs (Y8 versions only)
- Connection block with 5 terminals for 6 mm² wires and 5 terminals for 2.5 mm² wires (10 x 10 mm ² for 30A and higher models).

The connection block is equipped with a jumper between terminals 1 and 2, it allows connecting a safety device, a timer, or an external wired remote control. On versions using power relay(s) this jumper is on the power relay coil circuit.

Controller contact action :
- A switch located under the knob can be used to reverse the contact action (open on temperature rise or close on temperature rise).
- In models with manual reset high limit thermostats, close on rise contact action is not available on manual reset thermostats.
- In models with electronic manual reset controller, it is possible to set an open on temperature rise (high temperature safety) or open on temperature decrease action
- Control action: ON-OFF

Contact action (Types with manual reset option) :

Versions with manual reset thermostats are multiple, because of the many possible configurations. The electromechanical manual reset thermostat can be failsafe or standard, and the electronic manual reset controller is failsafe. Thermostats can be coupled to a SPST or DPST power relay, or a 3 poles relay board. The choice of different configurations depends on the final application, and the requirements to use single pole or multiple pole switching systems, independent or not.

Minimum calibration temperature for manual reset thermostats is 40 ° C -60°C for fail safe models) , with open on temperature rise contact action. Electronic manual reset can be adjusted inside the whole temperature range.

Cable outputs :
- Cables gland output board is equipped in standard with one or two M25 cable glands (Other cable gland boards: 2 x M20+1xM24, 1 x 1 "or 4 x M20 for flat heat tracing cables, see page 72).
- The two back side M20 X 1.5 outputs are equipped with cable glands with silicone gasket to seal the temperature sensors outlet.
- When the Y8 type is used with backside accessories, the version to use is the distance measurement one, and the capillary protection tube must be removed.

Standard Accessories :
- 10 PA66 red plastic seals, English-French installation manual.
- Temperature sensor is included in the control box (see standard NTC models page 51 of this catalogue)
- For temperature ranges -35+35°C, 4-40°C, 0-10°C , probe is protected by waterproof plastic pocket
- For higher temperature range, probe is protected by stainless steel pocket.

Options :
- Infrared remote control
- 2 poles shaft switch with 3 mm contact distance (Not available on 3 phases models)
- Enclosure heater
- ° F printed knob
- 115-120V power supply.

Because of permanent improvement of our products, drawings, descriptions, features used on these data sheets are for guidance only and can be modified without prior advice

E-Mail: info@ultimheat.com Web: www.ultimheat.com

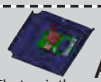
Y6, Y7, Y8 types temperature control boxes
Electronic thermostat types

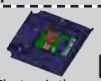
The 3 internal basic configurations and their option

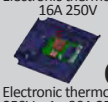
1
2PE2N6 Single pole electronic controller

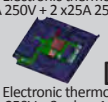
Available temperature ranges
-35+35°C, 4-40°C,0-10°C, 30-90°C, 30-110°C, 50-200°C, 50-300°C
Standard sensor cable length for remote sensor version : 2m

Power output options


A
Electronic thermostat 16A 250V


B
Electronic thermostat 16A 250V + 2 x25A 250V relay


C
Electronic thermostat 16A 250V + 1 x 30A 250V relay


D
Electronic thermostat 16A 250V + 3 relays 16A 250V board

E
Electronic thermostat 16A 250V + 6 relays 16A 250V board

F
Electronic thermostat 16A 250V + 3 x 25A 250V/440V power contactor (only on Y6 and Y7, not available on Y8)

Front board options

G
No options

H
12A 250V Illuminated on-off switch

I
Backlit knob

J
Standard: 12A 250V Illuminated on-off switch + Backlit knob

K
2 x 16A 250V shaft switch option

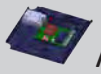
L
2 x 16A 250V shaft switch + Backlit knob

Main references

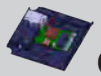
Temperature ranges (°C)	Options*	Ambient sensor version	Distant sensor version	300 mm long Back rod version**	Immersion heater version***
-35+35	A-J	Y8WRCA120D001AF1	Y8WRCC120D004AF1	Y6WRCR120D00FAF1	Y7WRCH120D00MAF1
4-40	A-J	Y8WRDA120D001AF1	Y8WRDC120D004AF1	Y6WRDR120D00FAF1	Y7WRDH120D00MAF1
30-90	A-J		Y8WREC120D004AF1	Y6WRER120D00FAF1	Y7WREH120D00MAF1
30-110	A-J		Y8WRFC120D004AF1	Y6WRFR120D00FAF1	Y7WRFH120D00MAF1
50-200	A-J		Y8WRGC120D004AF1	Y6WRGR120D00FAF1	Y7WRGH120D00MAF1
50-300	A-J		Y8WRHC120D004AF1	Y6WRHR120D00FAF1	Y7WRHH120D00MAF1

2
2PE2N6 Electronic thermostat + top side 8L manual reset high limit thermostat

Available temperature ranges
-35+35°C, 4-40°C,0-10°C, 30-90°C, 30-110°C, 50-200°C, 50-300°C
Standard sensor cable length for remote sensor version : 2m and manual reset capillary length: 1.5m


A
Electronic thermostat 16A 250V + SPNC 16A 250V manual reset

B
Electronic thermostat 16A 250V + SPNC 16A 250V manual reset+ 2 x25A 250V relay


C
Electronic thermostat 16A 250V + SPNC 16A 250V manual reset + 1 x 30A 250V relay

D
Electronic thermostat 16A 250V + SPNC 16A 250V manual reset + 3 relays 16A 250V board

E
SPDT 16A 250V + 3 x 25A 250V/440V power contactor + SPNC 16A 250V manual reset (only on Y6 and Y7, not available on Y8)

F
Electronic thermostat 16A 250V + SPNC 16A 250V manual reset + 6 relays 16A 250V board
Att: manual reset in side position

G
No options

H
12A 250V Illuminated on-off switch

I
Backlit knob

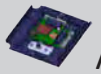
J
Standard: 12A 250V Illuminated on-off switch + Backlit knob

Main references

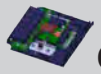
Temperature ranges (°C)	High limit calibration (°C)	Options*	Ambient sensor version	Distant sensor version	300 mm long Back rod version**	Immersion heater version***
-35+35	60	A-J	Y8WRCB120D0L1AF1	Y8WRCE120D0L6AF1	Y6WRCR120D0LFAF1	Y7WRCH120D0LMAF1
4-40	60	A-J	Y8WRDB120D0L1AF1	Y8WRDE120D0L6AF1	Y6WRDR120D0LFAF1	Y7WRDH120D0LMAF1
30-90	110	A-J		Y8WREE120D0L6AF1	Y6WRER120D0LFAF1	Y7WREH120D0LMAF1
30-110	130	A-J		Y8WRFE120D0L6AF1	Y6WRFR120D0LFAF1	Y7WRFH120D0LMAF1
50-200	220	A-J		Y8WRGE120D0L6AF1	Y6WRGR120D0LFAF1	Y7WRGH120D0LMAF1
50-300	320	A-J		Y8WRHE120D0L6AF1	Y6WRHR120D0LFAF1	Y7WRHH120D0LMAF1

3
2PE2N6 Electronic thermostat + top side 2PE2N6 Electronic manual reset high limit thermostat

Available temperature ranges
-35+35°C, 4-40°C,0-10°C, 30-90°C, 30-110°C, 50-200°C, 50-300°C
Standard sensors cable length for remote sensor version : 2m


A
Electronic thermostat 16A 250V + Electronic 16A 250V manual reset

B
Electronic thermostat 16A 250V + Electronic 16A 250V manual reset + 3 relays 16A 250V board.


C
Electronic thermostat 16A 250V + Electronic 16A 250V manual reset + 6 relays 16A 250V board.

G
No options

H
12A 250V Illuminated on-off switch

I
Backlit knob

J
Standard: 12A 250V Illuminated on-off switch + Backlit knob

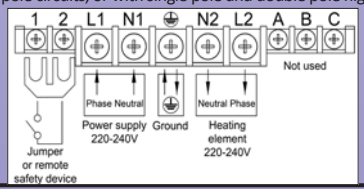
Main references

Temperature ranges (°C)	High limit calibration (°C)	Options*	Ambient sensor version	Distant sensor version	300 mm long Back rod version**	Immersion heater version***
-35+35	60	A-J	Y8WRCA120D0X1AF1	Y8WRCC120D0X4AF1	Y6WRCR120D0XFAF1	Y7WRCH120D0XMAF1
4-40	60	A-J	Y8WRDA120D0X1AF1	Y8WRDC120D0X4AF1	Y6WRDR120D0XFAF1	Y7WRDH120D0XMAF1
30-90	110	A-J		Y8WREC120D0X4AF1	Y6WRER120D0XFAF1	Y7WREH120D0XMAF1
30-110	130	A-J		Y8WRFC120D0X4AF1	Y6WRFR120D0XFAF1	Y7WRFH120D0XMAF1
50-200	220	A-J		Y8WRGC120D0X4AF1	Y6WRGR120D0XFAF1	Y7WRGH120D0XMAF1
50-300	320	A-J		Y8WRHC120D0X4AF1	Y6WRHR120D0XFAF1	Y7WRHH120D0XMAF1

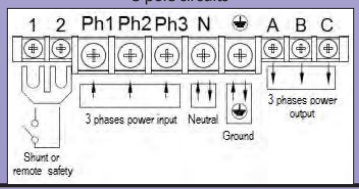
* Consult factory for full references with different options described in these tables
** Other standard rod length: 230, 450, 600 mm
*** : Without center hole, nor thread. Specify hole diameter and pitch on order
Other options not described in these tables: cable glands, remote control, cabinet heater. Consult our commercial department for full references.
Knob printing: see thermostats technical data sheet in this catalogue

Wiring diagrams

Single pole circuits, or with single pole and double pole high limit



3 pole circuits



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