Y6, Y7, Y8 types temperature control boxes
77 x 35 mm, On OFF Electronic controllers types

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)

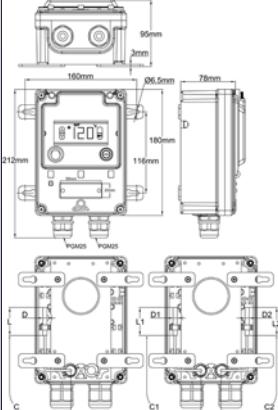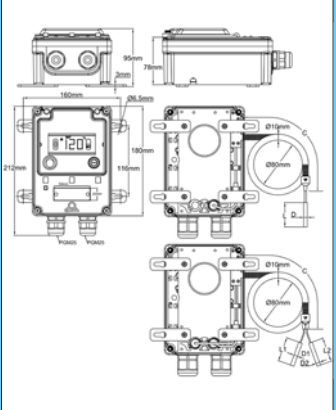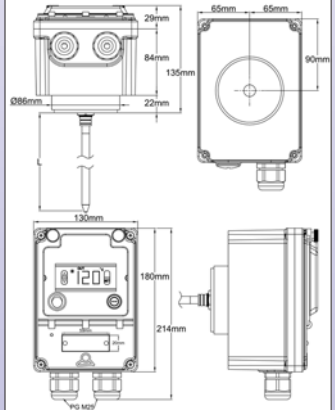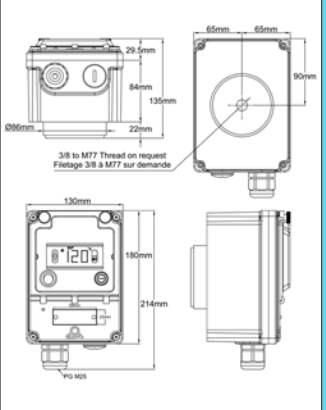| **Y8** Ambient temperature measurement	**Y8** Remote measurement	**Y6** Rear rod measurement	**Y7** Measurement on rear mounted immersion heater (We do not supply the immersion heater)

Main advantages :
- The simplest and most economical electronic controller with digital display of the Y8 electronic temperature controls range.
- Heavy duty housing for outside use, IP65 and IK10.
- Simple configuration by user (for more information see catalogue page 45 about 273 models .
- Adjustable temperature differential and heating or cooling action
- If open circuit or missing temperature sensor and if no power supply, output relay will open (Fail safe action)

Standard equipment :
- Fuse for internal circuit protection
- Illuminated on-off switch
- 4 wall mounting removable legs (Y8 versions only)
- Connection block with 5 terminal 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 relays coil circuit.

Controller contact action :
- In models with manual reset high limit thermostats, close on rise contact action is not available on manual reset thermostat.
- Control action: ON-OFF

Contact action (Types with manual reset option) :

Manual reset thermostat calibration must be specified at order. The electromechanical manual reset thermostat can be failsafe or standard. The choice of different configurations depends on the final application, and the requirements to use single poles 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.

Cables output :
- Cables gland output board is equipped in standard with one or two M25cable 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, and sensor 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 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.
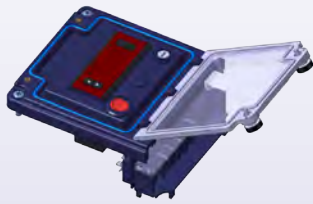
Options :
- Infrared remote control
- Enclosure heater
- 115-120V power supply.

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

Y6, Y7, Y8 types temperature control boxes
77 x 35 mm, On OFF Electronic controllers types

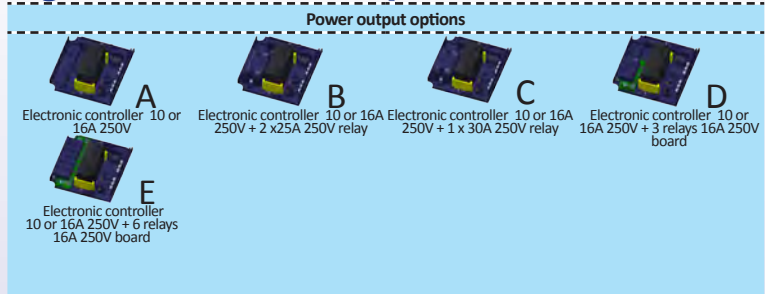## The 2 internal basic configurations and their options

1

273 type on-off electronic controller

Power output options

A Electronic controller 10 or 16A 250V

B Electronic controller 10 or 16A 250V + 2 x25A 250V relay

C Electronic controller 10 or 16A 250V + 1 x 30A 250V relay

D Electronic controller 10 or 16A 250V + 3 relays 16A 250V board

E Electronic controller 10 or 16A 250V + 6 relays 16A 250V board

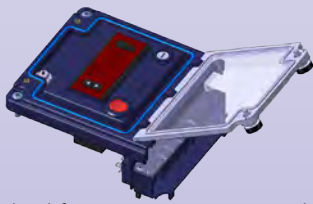Standard sensor cable length for remote sensor version : 2m

Main references

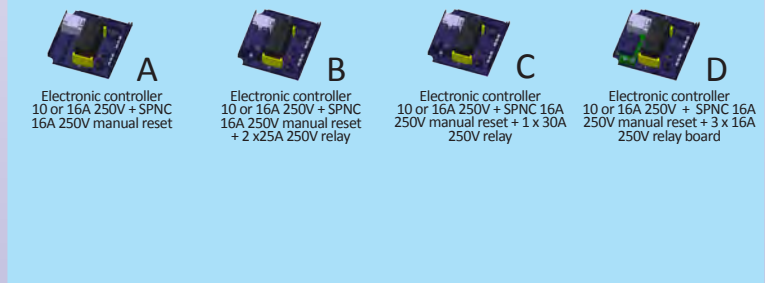| Temperature ranges (°C)	Options*	Ambiant sensor version	Distant sensor version	300 mm long Back rod version**	Immersion heater version***
-40+120, NTC sensor	A	Y8WHQA3100001AF3	Y8WHQC3100006AF3	Y6WHQR310000FAF1	Y7WHQH31000MAF1
-40+120, NTC sensor	B	Y8WHQA3120001LF3	Y8WHQC3120006LF3	Y6WHQR312000FLF1	Y7WHQH312000MLF1
-40+120, NTC sensor	C	Y8WHQA3110001DF3	Y8WHQC3110006DF3	Y6WHQR311000FDF1	Y7WHQH311000MDF1
-40+120, NTC sensor	D	Y8WHQA3140001HF3	Y8WHQC3140006HF3	Y6WHQR314000FHF1	Y7WHQH314000MHF1
-40+120, NTC sensor	E	Y8WHQA3170001IF3	Y8WHQC3170006IF3	Y6WHQR317000FIF1	Y7WHQH317000MIF1
-50-550, Pt100 sensor	A	Y8WHSA3100001AF3	Y8WHSC3100006AF3	Y6WHSR310000FAF1	Y7WHSH310000MAF1
-50-550, Pt100 sensor	B	Y8WHSA3120001LF3	Y8WHSC3120006LF3	Y6WHSR312000FLF1	Y7WHSH312000MLF1
-50-550, Pt100 sensor	C	Y8WHSA3110001DF3	Y8WHSC3110006DF3	Y6WHSR311000FDF1	Y7WHSH311000MDF1
-50-550, Pt100 sensor	D	Y8WHSA3140001HF3	Y8WHSC3140006HF3	Y6WHSR314000FHF1	Y7WHSH314000MHF1
-50-550, Pt100 sensor	E	Y8WHSA3170001IF3	Y8WHSC3170006IF3	Y6WHSR317000FIF1	Y7WHSH317000MIF1
0-999, K thermocouple sensor	A		Y8WHTC3100006BF3	Y6WHTR310000FBF1	Y7WHTH310000MBF1
0-999, K thermocouple sensor	B		Y8WHTC3120006MF3	Y6WHTR312000FMF1	Y7WHTH312000MMF1
0-999, K thermocouple sensor	C		Y8WHTC3110006EF3	Y6WHTR311000FEF1	Y7WHTH311000MEF1
0-999, K thermocouple sensor	D		Y8WHTC3140006HF3	Y6WHTR314000FHF1	Y7WHTH314000MHF1
0-999, K thermocouple sensor	E		Y8WHTC3170006IF3	Y6WHTR317000FIF1	Y7WHTH317000MIF1

2

273 type on-off electronic controller + top side 8L manual reset high limit thermostat

A Electronic controller 10 or 16A 250V + SPNC 16A 250V manual reset

B Electronic controller 10 or 16A 250V + SPNC 16A 250V manual reset + 2 x25A 250V relay

C Electronic controller 10 or 16A 250V + SPNC 16A 250V manual reset + 1 x 30A 250V relay

D Electronic controller 10 or 16A 250V + SPNC 16A 250V manual reset + 3 x 16A 250V relay board

Standard sensor cable length for remote sensor version: 2m and manual reset capillary length: 1.5m
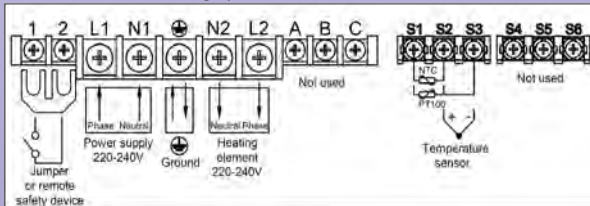
Main references

Temperature ranges (°C)	Manual reset calibration temperature (°C)	Options*	Ambiant sensor version	Distant sensor version	300 mm long Back rod version**	Immersion heater version***
-40+120, NTC sensor		A	Y8WHQB31010L1AF7	Y8WHQE31000L6AF7	Y8WHTE31000L6BF7	Y7WHQH31000LMAF1
-40+120, NTC sensor		B	Y8WHQB31410L1HF7	Y8WHQE31400L6LF7	Y8WHTE31200L6LF7	Y7WHQH31400LMHF1
-40+120, NTC sensor		C	Y8WHQB31110L1DF7	Y8WHQE31100L6DF7	Y8WHTE11100L6EF7	Y7WHQH31100LMDF1
-40+120, NTC sensor		D	Y8WHQB31710L1IF7	Y8WHQE31700L6IF7	Y8WHTE31700L6IF7	Y7WHQH31700LMIF1
-50-550, Pt100 sensor	Must be specified with order	A	Y8WHSB31010L1AF7	Y8WHSE31000L6AF7	Y6WHSR31000LFAF1	Y7WHSH31000LMAF1
-50-550, Pt100 sensor		B	Y8WHSB31410L1HF7	Y8WHSE31200L6LF7	Y6WHSR31200LFLF1	Y7WHSH31200LMLF1
-50-550, Pt100 sensor		C	Y8WHSB31110L1DF7	Y8WHSE31100L6DF7	Y6WHSR31100LFDF1	Y7WHSH31100LMDF1
-50-550, Pt100 sensor		D	Y8WHSB31710L1IF7	Y8WHSE31700L6IF7	Y6WHSR31700LFIF1	Y7WHSH31700LMIF1
0-999, K thermocouple sensor		A		Y8WHTE31000L6BF7	Y6WHTR31000LFBF1	Y7WHTH31000LMBF1
0-999, K thermocouple sensor		B		Y8WHTE31200L6LF7	Y6WHTR31200LFLF1	Y7WHTH31200LMLF1
0-999, K thermocouple sensor		C		Y8WHTE31100L6EF7	Y6WHTR31100LFEF1	Y7WHTH31100LMEF1
0-999, K thermocouple sensor		D		Y8WHTE31700L6IF7	Y6WHTR31700LFIF1	Y7WHTH31700LMIF1

Wiring diagrams
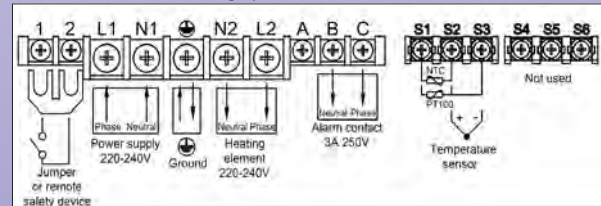
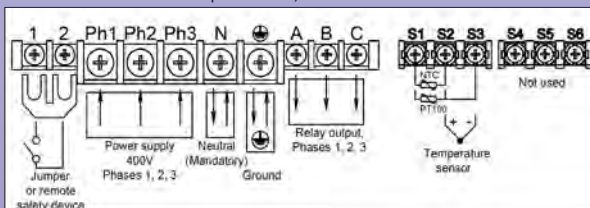**Single pole circuits, without alarm**
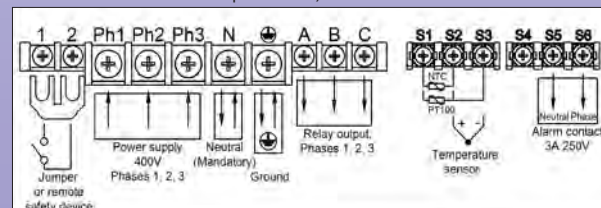

Single pole circuit, one alarm

3 pole circuits, without alarm

3 pole circuits, one alarm