Y6, Y7, Y8 types temperature control boxes
Bulb and capillary types

Main features
These products come in 4 different dimensional configurations, in control (One bulb) or control + high limit safety (2 bulbs)

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

Main advantages :
- The simplest and most economical control systems of the Y6, 7, 8 electromechanical temperature controls range.
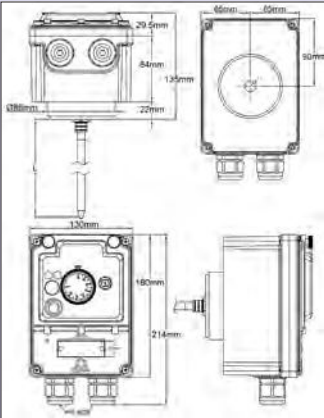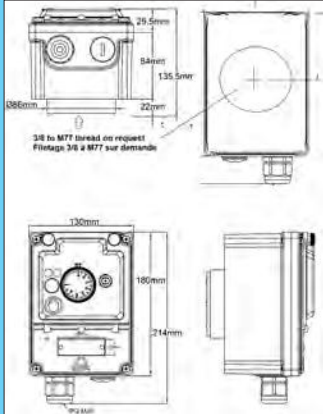- Heavy duty housing for outside use, IP65 and IK10. PA66 for Y8 and aluminum for Y6 and Y7
- Instinctive understanding of the setting by the end customer.
- It has proven reliability, and a good immunity to power supply problems.

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 relay circuit protection (When present).
- Illuminated on-off switch is standard on types with relays or relay board. It is an option on other models.
- Knob printed in ° C
- 4 wall mounting removable legs
- 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).
Internal wiring provides connection between thermostat capillary and ground terminal.
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. This external connection is not available on 3 poles models without relay.

Contact action (Types with manual reset thermostat option) :
Versions with manual reset thermostat are multiple, because of the many possible configurations. The manual reset thermostat can be SPST, DPST, 3PST or even 4PST, failsafe or standard. Single pole thermostats can be coupled to a SPST or DPST or 3 pole ST power relay, or to a 3 poles relay board. Some configurations also allow the coupling with an external thermal fuse ("TCO"). 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 versions). In standard, these manual reset thermostats are calibrated at 20°C more than the maximum control thermostat setting. Other values on request. With rare exceptions, their contact action is open on temperature rise, without change over.

Cables output :
- Cable 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 distant measurement one, and capillary protection tube must be removed.

Standard Accessories :
10 PA66 red plastic seals, English-French installation manual.

Options :
- Infrared remote control
- 2 poles shaft switch with 3 mm contact distance (Not available on 3 phase models or models with K thermostat)
- Enclosure heater
- Soft grip backlit knob
- ° F knob
- Illuminated on-off switch (This option reduces the electrical rating to 12A in no relay versions, and is not available on models with 3 poles without relay and models with shaft switch)
- 115-120V power supply.

Y6, Y7, Y8 types temperature control boxes
Bulb and capillary types

The 10 basic internal configurations and their multiple options

1
8G Single pole control thermostat

Available temperature ranges
-35+35°C, 4-40°C, 30-90°C, 30-110°C, 50-200°C, 50-300°C
Standard capillary range for capillary output version : 1.5m.

Power output options

A — SPDT 16A 250V
B — SPDT 16A 250V + 1 x 30A 250V relay
C — SPDT 16A 250V + 2 x 25A 250V relay
D — SPDT 16A 250V + 3 x16A 250V board
E — SPDT 16A 250V + 6 x16A 250V board
F — SPDT 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 — 12A 250V Illuminated on-off switch + Backlit knob
K — 2 x 16A 250V shaft switch option. Not available on versions with 3 x 25A 250/440V contactor
L — 2 x 16A 250V shaft switch + Backlit knob. Not available on versions with 3 x 25A 250/440V contactor

Main references

Temperature ranges	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-35+35	A-G	Y8WKCA320B0011F3	Y8WKCC320B0031F3	Y6WKCR320B00F1F1	Y7WKCH320B00M1F1
4-40	A-G	Y8WKDA320B0011F3	Y8WKDC320B0031F3	Y6WKDR320B00F1F1	Y7WKDH320B00M1F1
30-90	A-G		Y8WKEC320B0031F3	Y6WKER320B00F1F1	Y7WKEH320B00M1F1
30-110	A-G		Y8WKFC320B0031F3	Y6WKFR320B00F1F1	Y7WKFH320B00M1F1
50-200	A-G		Y8WKGC320B0031F3	Y6WKGR320B00F1F1	Y7WKGH320B00M1F1
50-300	A-G		Y8WKHC320B0031F3	Y6WKHR320B00F1F1	Y7WKHH320B00M1F1

2
8G Single pole thermostat + top side 8L manual reset high limit thermostat

Available temperature ranges
-35+35°C, 4-40°C, 30-90°C, 30-110°C, 50-200°C, 50-300°C
Standard capillary range for capillary output version: 1.5m.

Power output options

A — SPDT 16A 250V + SPNC 16A 250V manual reset
B — SPDT 16A 250V + SPNC 16A 250V manual reset + 2 x25A 250V relay
C — SPDT 16A 250V + SPNC 16A 250V manual reset+ 3 relays 16A 250V board
D — SPDT 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 — 12A 250V Illuminated on-off switch + Backlit knob option

Main references

Temperature ranges (°C)	High limit calibration (°C)	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-35+35	60	A-G	Y8WKCB320B0P11F7	Y8WKCE320B0P31F7	Y6WKCR320B0PF1F1	Y7WKCH320B0PM1F1
4-40	60	A-G	Y8WKDB320B0L11F7	Y8WKDE320B0L31F7	Y6WKDR320B0LF1F1	Y7WKDH320B00M1F1
30-90	110	A-G		Y8WKEE320B0L31F7	Y6WKER320B0LF1F1	Y7WKEH320B0LM1F1
30-110	130	A-G		Y8WKFE320B0L31F7	Y6WKFR320B0LF1F1	Y7WKFH320B0LM1F1
50-200	220	A-G		Y8WKGE320B0L31F7	Y6WKGR320B0LF1F1	Y7WKGH320B0LM1F1
50-300	320	A-G		Y8WKHE320B0L31F7	Y6WKHR320B0LF1F1	Y7WKHH320B0LM1F1

3
8G Single pole thermostat + side manual reset 2 or 3 pole, high limit thermostat type 8X

Available temperature ranges
-35+35°C, 4-40°C, 30-90°C, 30-110°C
Standard capillary range for capillary output version : 1.5m for control, 900mm for manual reset

Power output options

A — SPDT 15A 250V + DPNC 20A 250V manual reset
B — SPDT 15A 250V + DPNC 20A 250V manual reset + 2 x 25A 250V relay
C — SPDT 15A 250V + 3PNC 20A 250V manual reset + 3 x 16A 250V relay board

Front board options

G — No options
H — 12A 250V Illuminated on-off switch
I — Backlit knob
J — 12A 250V Illuminated on-off switch + Backlit knob option

Main references

Temperature ranges (°C)	High limit calibration (°C)	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-35+35	60	A-G	Y8WKCB320B0U11F7	Y8WKCE320B0U31F7	Y6WKCR320B0UF1F1	Y7WKCH320B0UM1F1
4-40	60	A-G	Y8WKDB320B0T11F7	Y8WKDE320B0T31F7	Y6WKDR320B0TF1F1	Y7WKDH320B0TM1F1
30-90	110	A-G		Y8WKEE320B0T31F7	Y6WKER320B0TF1F1	Y7WKEH320B0TM1F1
30-110	130	A-G		Y8WKFE320B0T31F7	Y6WKFR320B0TF1F1	Y7WKFH320B0TM1F1

4
3 pole control thermostat

Available temperature ranges
-35+35°C, 4-40°C, 30-90°C, 30-110°C, 50-200°C, 50-300°C
Standard capillary range for capillary output version : 1.5m

Power output options

A — 3PNC, 16A 250V

Front board options

G — No options
H — 12A 250V Illuminated on-off switch
I — Backlit knob
J — 12A 250V Illuminated on-off switch + Backlit knob option

Main references

Temperature ranges (°C)	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-35+35	A-G	Y8WKCB340B0014F3	Y8WKCC340B0034F3	Y6WKCR340B00F4F1	Y7WKCH340B00M4F1
4-40	A-G	Y8WKDB340B0014F3	Y8WKDC340B0034F3	Y6WKDR340B00F4F1	Y7WKDH340B00M4F1
30-90	A-G		Y8WKEC340B0034F3	Y6WKER340B00F4F1	Y7WKEH340B00M4F1
30-110	A-G		Y8WKFC340B0034F3	Y6WKFR340B00F4F1	Y7WKFH340B00M4F1
50-200	A-G		Y8WKGC340B0034F3	Y6WKGR340B00F4F1	Y7WKGH340B00M4F1
50-300	A-G		Y8WKHC340B0034F3	Y6WKHR340B00F4F1	Y7WKHH340B00M4F1

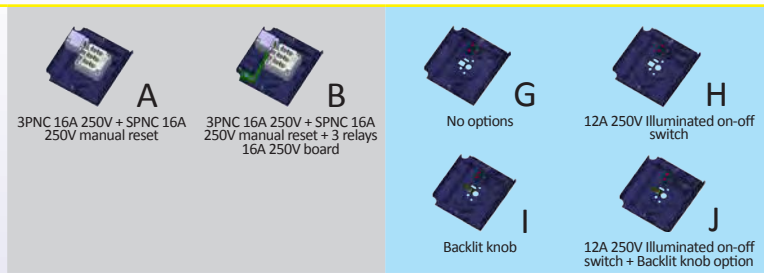E-Mail: info@ultimheat.com Web: www.ultimheat.com

5

3 pole control thermostat+ manual reset high limit thermostat

Available temperature ranges
-35+35°C, 4-40°C, 30-90°C, 30-110°C, 50-200°C, 50-300°C
Standard capillary range for capillary output version : 1.5m

A
3PNC 16A 250V + SPNC 16A 250V manual reset

B
3PNC 16A 250V + SPNC 16A 250V manual reset + 3 relays 16A 250V board

G
No options

H
12A 250V Illuminated on-off switch

I
Backlit knob

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

Main references

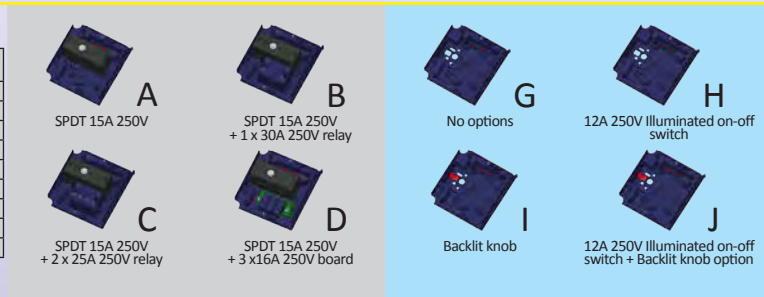| Temperature ranges (°C)	High limit calibration (°C)	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-35+35	60	A-G	Y8WKCA340B0P14F7	Y8WKCE340B0P34F7	Y6WKCR340B0PF4F1	Y7WKCH340B0PM14F1
4-40	60	A-G	Y8WKDA340B0L14F7	Y8WKDE340B0L34F7	Y6WKDR340B0LF4F1	Y7WKDH340B0LM4F1
30-90	110	A-G		Y8WKEE340B0L34F7	Y6WKER340B0LF4F1	Y7WKEH340B0LM4F1
30-110	130	A-G		Y8WKFE340B0L34F7	Y6WKFR340B0LF4F1	Y7WKFH340B0LM4F1
50-200	220	A-G		Y8WKGE340B0L34F7	Y6WKGR340B0LF4F1	Y7WKGH340B0LM4F1
50-300	320	A-G		Y8WKHE340B0L34F7	Y6WKHR340B0LF4F1	Y7WKHH340B0LM4F1

6

Single pole heavy duty type K thermostats

T° (°C)	Capillary length	T° (°C)	Capillary length
-25+25	1500	80-200	1500
-10+15	1500	50-300	1500
0-50	1500	10-450	1500
0-70	1500	10-450	3000
0-70	3000	60-500	1500
20-90	1500	60-500	3000
20-90	3000	180-600	1500
10-150	1500	180-600	3000
10-150	3000	280-700	1500

A
SPDT 15A 250V

B
SPDT 15A 250V + 1 x 30A 250V relay

C
SPDT 15A 250V + 2 x 25A 250V relay

D
SPDT 15A 250V + 3 x16A 250V board

G
No options

H
12A 250V Illuminated on-off switch

I
Backlit knob

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

Plages de température réalisables

Main references

Temperature ranges (°C)	Capillary length (Not for ambient types)	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-25+25	1500	A-G	Y8WM1A320B0011F3	Y8WM1A320B0031F3	Y6WM1R320B00F1F1	Y7WM1H320B00M1F1
-10+15	1500	A-G	Y8WM2A320B0011F3	Y8WM2A320B0031F3	Y6WM2R320B00F1F1	Y7WM2H320B00M1F1
0-50	1500	A-G	Y8WM3A320B0011F3	Y8WM3A320B0031F3	Y6WM3R320B00F1F1	Y7WM3H320B00M1F1
0-70	1500	A-G	Y8WM1A320B0011F3	Y8WM4A320B0031F3	Y6WM4R320B00F1F1	Y7WM4H320B00M1F1
0-70	3000	A-G		Y8WM4A320B0051F3	Y6WM4R320B00F1F1	Y7WM4H320B00M1F1
20-90	1500	A-G		Y8WM5A320B0031F3	Y6WM5R320B00F1F1	Y7WM5H320B00M1F1
20-90	3000	A-G		Y8WM5A320B0051F3	Y6WM5R320B00F1F1	Y7WM5H320B00M1F1
10-150	1500	A-G		Y8WM6A320B0031F3	Y6WM6R320B00F1F1	Y7WM6H320B00M1F1
10-150	3000	A-G		Y8WM6A320B0051F3	Y6WM6R320B00F1F1	Y7WM6H320B00M1F1
80-200	1500	A-G		Y8WM7A320B0031F3	Y6WM7R320B00F1F1	Y7WM7H320B00M1F1
50-300	1500	A-G		Y8WM8A320B0031F3	Y6WM8R320B00F1F1	Y7WM8H320B00M1F1
10-450	1500	A-G		Y8WM9A320B0031F3	Y6WM9R320B00F1F1	Y7WM9H320B00M1F1
10-450	3000	A-G		Y8WM9A320B0051F3	Y6WM9R320B00F1F1	Y7WM9H320B00M1F1
60-500	1500	A-G		Y8WMAA320B0031F3	Y6WMAR320B00F1F1	Y7WMAH320B00M1F1
60-500	3000	A-G		Y8WMAA320B0051F3	Y6WMAR320B00F1F1	Y7WMAH320B00M1F1
180-600	1500	A-G		Y8WMYA320B0031F3	Y6WMYR320B00F1F1	Y7WMYH320B00M1F1
180-600	3000	A-G		Y8WMYA320B0051F3	Y6WMYR320B00F1F1	Y7WMYH320B00M1F1
280-700	1500	A-G		Y8WMBA320B0031F3	Y6WMBR320B00F1F1	Y7WMBH320B00M1F1

7

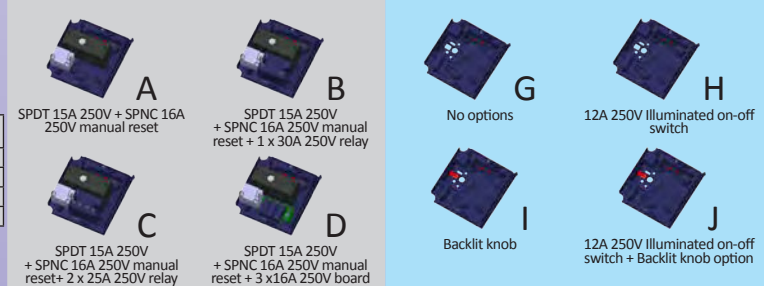Single pole K thermostat and topside 8L single pole manual reset

Available temperature ranges

T° (°C)	Capillary length	T° (°C)	Capillary length
-25+25	1500	20-90	1500
-10+15	1500	10-150	1500
0-50	1500	80-200	1500
0-70	1500	50-300	1500

A
SPDT 15A 250V + SPNC 16A 250V manual reset

B
SPDT 15A 250V + SPNC 16A 250V manual reset + 1 x 30A 250V relay

C
SPDT 15A 250V + SPNC 16A 250V manual reset+ 2 x 25A 250V relay

D
SPDT 15A 250V + SPNC 16A 250V manual reset + 3 x16A 250V board

G
No options

H
12A 250V Illuminated on-off switch

I
Backlit knob

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

Main references

Temperature ranges (°C)	High limit calibration	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-25+25	60	A-G	Y8WM17320B0N11F7	Y8WM17320B0N61F7	Y6WM1R320B0NF1F1	Y8WM1H320B0NM1F1
-10+15	60	A-G	Y8WM27320B0N11F7	Y8WM27320B0N61F7	Y6WM2R320B0NF1F1	Y8WM2H320B0NM1F1
0-50	60	A-G	Y8WM37320B0J11F7	Y8WM37320B0J61F7	Y6WM3R320B0JF1F1	Y8WM3H320B0JM1F1
0-70	90	A-G	Y8WM47320B0L11F7	Y8WM47320B0L61F7	Y6WM4R320B0LF1F1	Y8WM4H320B0LM1F1
20-90	110	A-G		Y8WM57320B0L61F7	Y6WM5R320B0LF1F1	Y8WM5H320B0LM1F1
10-150	170	A-G		Y8WM67320B0L61F7	Y6WM6R320B0LF1F1	Y8WM6H320B0LM1F1
80-200	220	A-G		Y8WM77320B0L61F7	Y6WM7R320B0LF1F1	Y8WM7H320B0LM1F1
50-300	320	A-G		Y8WM87320B0L61F7	Y6WM8R320B0LF1F1	Y8WM8H320B0LM1F1

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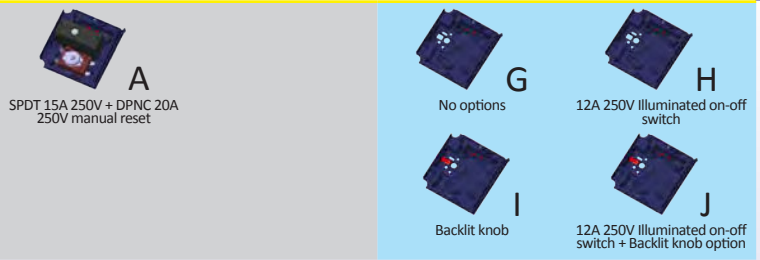# Y6, Y7, Y8 types temperature control boxes
Bulb and capillary types

8
Single pole K thermostat and side mounted double pole manual reset type 8X

Available temperature ranges

T° (°C)	Capillary length	T° (°C)	Capillary length
-25+25	1500	0-70	1500
-10+15	1500	20-90	1500
0-50	1500	10-150	1500

A — SPDT 15A 250V + DPNC 20A 250V manual reset

G — No options

H — 12A 250V Illuminated on-off switch

I — Backlit knob

J — 12A 250V Illuminated on-off switch + Backlit knob option

Main references
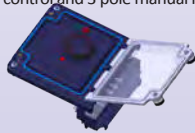
Temperature ranges (°C)	High limit calibration (°C)	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-25+25	60	A-G	Y8WM1B320B0W11F7	Y8WM17320B0W61F7	Y6WM1R320B0WF1F1	Y7WM1H320B0WM1F1
-10+15	60	A-G	Y8WM2B320B0W11F7	Y8WM27320B0W61F7	Y6WM2R320B0WF1F1	Y7WM2H320B0WM1F1
0-50	70	A-G	Y8WM3B320B0T11F7	Y8WM37320B0T61F7	Y6WM3R320B0TF1F1	Y7WM3H320B0TM1F1
0-70	90	A-G	Y8WM4B320B0T11F7	Y8WM47320B0T61F7	Y6WM4R320B0TF1F1	Y7WM4H320B0TM1F1
20-90	110	A-G	Y8WK5232000T1100	Y8WM57320B0T61F7	Y6WM5R320B0TF1F1	Y7WK5H320B0TM1F1
10-150	170	A-G	N/A	Y8WM67320B0T61F7	Y6WK6R320B0TF1F1	Y7WK6H320B0TM1F1

9
Combination 3 pole control and 3 pole manual reset direct switching

A — Combination 3PNC control + 3PNC manual reset, 20A 250V/16A 400V

G — No options

Temperature range: 10-85°C Manual reset at 120°C, other on request with MOQ

Main references

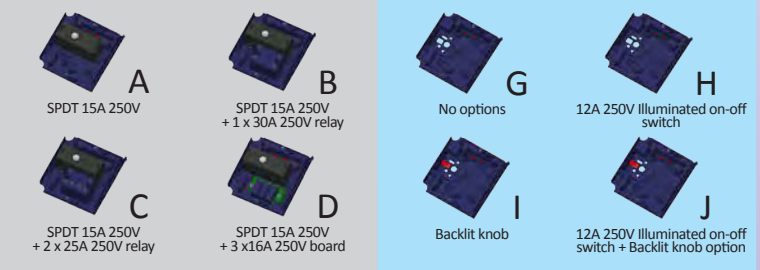| Temperature ranges (°C)	High limit calibration (°C)	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
10-85	120	A-G	Y8WFKB340A0W11F5	Y8WFKF340A0W61F5	Y6WFKR340A0WF1F1	Y7WFKH340A0WM1F1

10
Knob adjustment, SPDT manual reset thermostats type KX

Temperature ranges

T° (°C)	Capillary length	T° (°C)	Capillary length
-25+25	1500	80-200	1500
-10+15	1500	50-300	1500
0-50	1500	10-450	1500
0-70	1500	10-450	3000
0-70	3000	60-500	1500
20-90	1500	60-500	3000
20-90	3000	180-600	1500
10-150	1500	180-600	3000
10-150	3000	280-700	1500

A — SPDT 15A 250V

B — SPDT 15A 250V + 1 x 30A 250V relay

C — SPDT 15A 250V + 2 x 25A 250V relay

D — SPDT 15A 250V + 3 x16A 250V board

G — No options

H — 12A 250V Illuminated on-off switch

I — Backlit knob

J — 12A 250V Illuminated on-off switch + Backlit knob option

Main references

Temperature ranges (°C)	Capillary length (Not for ambient types)	Options*	Ambient bulb version	Distant bulb version	300 mm long Back rod version**	Immersion heater version***
-25+25	1500	A-G	Y8WQ1A320B0011F3	Y8WQ10320B0031F3	Y6WQ1R320B00F1F1	Y7WQ1H320B00M1F1
-10+15	1500	A-G	Y8WQ2A320B0011F3	Y8WQ20320B0031F3	Y6WQ2R320B00F1F1	Y7WQ2H320B00M1F1
0-50	1500	A-G	Y8WQ3A320B0011F3	Y8WQ30320B0031F3	Y6WQ3R320B00F1F1	Y7WQ3H320B00M1F1
0-70	1500	A-G	Y8WQ4A320B0011F3	Y8WQ40320B0031F3	Y6WQ4R320B00F1F1	Y7WQ4H320B00M1F1
0-70	3000	A-G	N/A	Y8WQ40320B0051F3	Y6WQ4R320B00F1F1	Y7WQ4H320B00M1F1
20-90	1500	A-G	N/A	Y8WQ50320B0031F3	Y6WQ5R320B00F1F1	Y7WQ5H320B00M1F1
20-90	3000	A-G	N/A	Y8WQ50320B0051F3	Y6WQ5R320B00F1F1	Y7WQ5H320B00M1F1
10-150	1500	A-G	N/A	Y8WQ60320B0031F3	Y6WQ6R320B00F1F1	Y7WQ6H320B00M1F1
10-150	3000	A-G	N/A	Y8WQ60320B0051F3	Y6WQ6R320B00F1F1	Y7WQ6H320B00M1F1
80-200	1500	A-G	N/A	Y8WQ70320B0031F3	Y6WQ7R320B00F1F1	Y7WQ7H320B00M1F1
50-300	1500	A-G	N/A	Y8WQ80320B0031F3	Y6WQ8R320B00F1F1	Y7WQ8H320B00M1F1
10-450	1500	A-G	N/A	Y8WQ90320B0031F3	Y6WQ9R320B00F1F1	Y7WQ9H320B00M1F1
10-450	3000	A-G	N/A	Y8WQ90320B0051F3	Y6WQ9R320B00F1F1	Y7WQ9H320B00M1F1
60-500	1500	A-G	N/A	Y8WQA0320B0031F3	Y6WQAR320B00F1F1	Y7WQAH320B00M1F1
60-500	3000	A-G	N/A	Y8WQA0320B0051F3	Y6WQAR320B00F1F1	Y7WQAH320B00M1F1
180-600	1500	A-G	N/A	Y8WQY0320B0031F3	Y6WQYR320B00F1F1	Y7WQYH320B00M1F1
180-600	3000	A-G	N/A	Y8WQY0320B0051F3	Y6WQYR320B00F1F1	Y7WQYH320B00M1F1
280-700	1500	A-G	N/A	Y8WQB0320B0031F3	Y6WQBR320B00F1F1	Y7WQBH320B00M1F1

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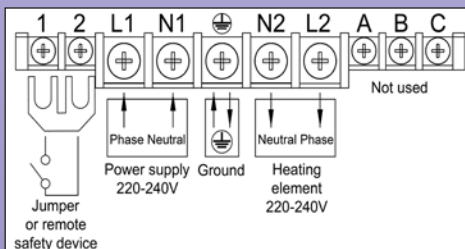** Other standard rod length: 230, 450, 600 mm
*** : Without center hole, nor thread. Specify hole diameter and pitch on order
Other options not described in these tables: cable glands, remote control, cabinet heater. Consult our commercial department for full references.
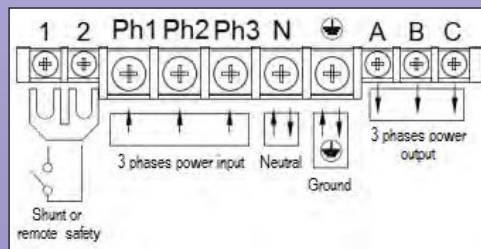**Knob printing:** see thermostats technical data sheets in this catalogue

Wiring diagrams

Single pole thermostat or single pole thermostat with relay, or with single pole and double pole high limit

1 2 L1 N1 ⏚ N2 L2 A B C
Not used

Jumper or remote safety device
Power supply 220-240V
Ground
Heating element 220-240V
Phase Neutral / Neutral Phase

3 pole thermostat and single pole thermostat with 3 pole relay

1 2 Ph1 Ph2 Ph3 N ⏚ A B C

Shunt or remote safety
3 phases power input
Neutral
Ground
3 phases power output