

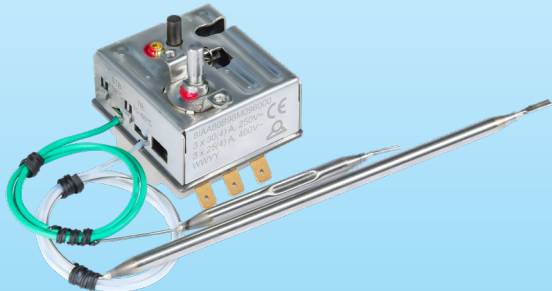
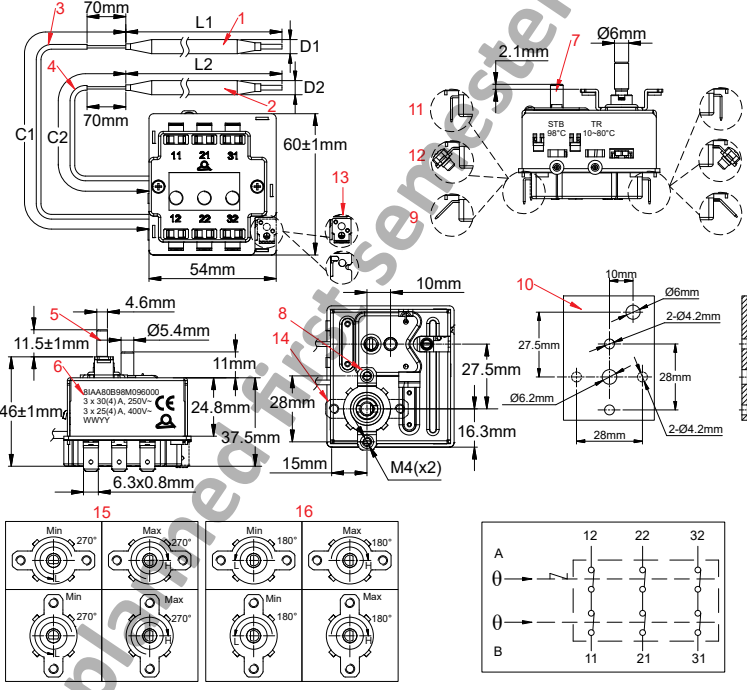


Temperature control thermostat & manual reset thermal cutout

Three poles combination control thermostats, 3 × 30A 250V, 3 × 25A 400V with 3 poles fail safe manual reset limiter

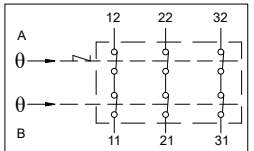
Type 81

Dimensions

1: Manual reset bulb and capillary;
2: Control bulb and capillary;
3: Manual reset capillary sleeve (transparent);
4: Control capillary sleeve (green);
5: Control adjustment shaft;
6: Main body;
7: Manual reset button;
8: Mounting bracket angled 0° (standard);
9: 6.35 × 0.8 terminals angled 45° (standard);
10: Mounting board drilling.

Options
11: 6.35 × 0.8 terminals angled 90°
12: Screw terminals
13: 6.35 × 0.8 ground terminal
14: Mounting bracket angled 90°
15: 270° shaft angulation
16: 180° shaft angulation



Applications

3 pole temperature control and 3 pole cut off on hot water tanks, including flat tanks, electric radiators, electro-thermal heating equipment and immersion heaters.

Main technical features

Housing dimensions: 60 × 54 × 46mm (Without adjusting shaft, terminals, bulbs and capillaries).

Bulb and capillary: Stainless steel, capillary length 250, 750, or 870mm, full length PVC sleeve on capillary up to 70mm of the bulb. PVC sleeve is transparent on the temperature control diastat and green on fail-safe safety diastat. Capillary minimum bending radius 5mm.

Temperature sensing element: Liquid filled bulbs and capillaries.

Terminals: 6.35 × 0.8 quick connect terminals. M4 screws also available on request.

Adjustment of temperature control set point: Dia. 6mm shaft with 4.6mm flat, shaft length 11.5mm. Other lengths or fixed setting available on request.

The temperature control shaft is available with 180 or 270° mechanical angulation.

Manual reset: Fail-safe, sealed fixed setting, front access reset button. Set point value of manual reset is usually 25°C above the maximum adjustment value of the temperature control set point. Other values are possible, **provided that tolerances between both set point don't allow over crossing.**

To know more about standard tolerances on manual reset set point, see 85 thermostat catalogue pages.

Mounting: Bracket with 2 M4 holes at 28mm distance, centered around the adjustment shaft. Exists in 2 positions, at 0° and 90°

Rating: 3 × 30(4)A, 250VAC, 3 × 25(4)A, 400VAC.

Contacts: 3 normally closed contacts, snap action, with simultaneous opening and closing.

Max ambient temperature on body: 80°C (176°F).

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



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Main references with 45° bended QC terminals, 270° angulation, 11.5mm shaft length, mounting bracket angled at 0° *

References with 6 x 6.35 terminals bended at 45°	References with six M4 screw terminals	Manual reset Calibration temperature (°C/°F)	Control temperature range (°C/°F)	Capillaries length (C1, C2, mm) **	Bulb diameters (D1, D2, mm)	Bulb length (L1, L2, mm)	Max temperature on bulbs L1 and L2 °C (°F)
8IAA70B90M009604	8ICA70B90M00960S	90+0/-8°C (194+0/-14.4°F)	10-70°C (50-158°F)	900	6	80, 85	L1: 140°C (284°F) L2: 170°C (338°F)
8IAA70B90M005604	8ICA70B90M00560S			500			
8IAA70B90M002604	8ICA70B90M00260S			250			
8IA075B98M009604	8IC075B98M00960S	98+0/-8°C (208+0/-14.4°F)	0-75°C (32-167°F)	900	6	80, 130	L1: 140°C (284°F) L2: 170°C (338°F)
8IA075B98M005604	8IC075B98M00560S			500			
8IA075B98M002604	8IC075B98M00260S			250			
8IAA80B98M009604	8ICA80B98M00960S	110+0/-8°C (230+0/-14.4°F)	10-80°C (50-176°F)	900	6	80, 120	L1: 140°C (284°F) L2: 170°C (338°F)
8IAA80B98M005604	8ICA80B98M00560S			500			
8IAA80B98M002604	8ICA80B98M00260S			250			
8IAC85BJ5M009604	8ICC85BJ5M00960S	110+0/-10°C (230+0/-18°F)	30-85°C (86-185°F)	900	6	80, 80	L1: 140°C (284°F) L2: 170°C (338°F)
8IAC85BJ5M005604	8ICC85BJ5M00560S			500			
8IAC85BJ5M002604	8ICC85BJ5M00260S			250			

* Ask to get specific data sheet for products with different bending of 6.35 terminals, 180° angulation, a mounting bracket angled at 90° or different length of adjustment shaft.

** In standard, both capillaries have the same length. Ask specific data sheet if 2 different lengths are requested

Standard knobs printing*

10 - 70°C on 270°	10 - 70°C on 180°	10 - 80°C on 270°	10 - 80°C on 180°	30 - 85°C on 270°	30 - 85°C on 180°
66MZ0060100702FB	66MZ006010070AFB	66MZ0060100802FB	66MZ006010080AFB	66MZ0060300852FB	66MZ006030085AFB
50 - 158°F on 270°	50 - 158°F on 180°	50 - 176°F on 270°	50 - 176°F on 180°	86 - 185°C on 270°	86 - 185°C on 180°
66MZ0060501582FY	66MZ006050158AFY	66MZ0060501762FY	66MZ006050176AFY	66MZ0060861852FY	66MZ006086185AFY

* Be careful in selecting knob model in accessories, the knob diameter and bezel must let free access to the reset button (see the 27.5mm dimension on drawing)

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