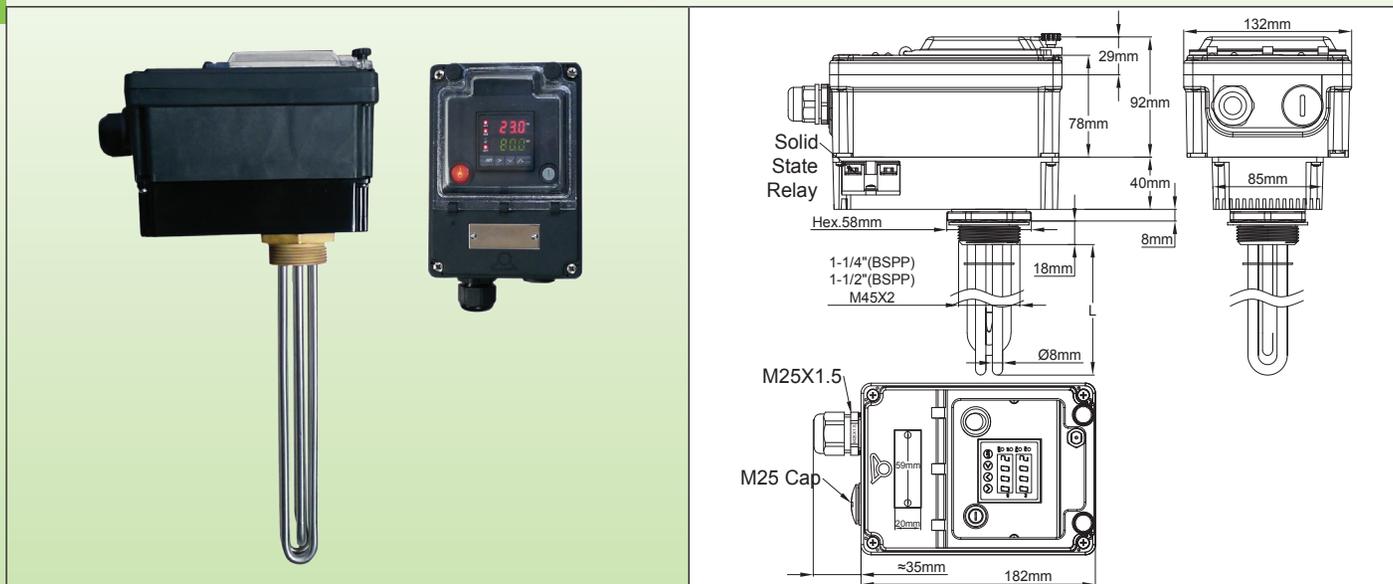




Immersion heaters with plastic connection box

Immersion heaters with 182mm × 130mm × 132mm plastic enclosure. Fittings 1¼", 1½", M45x2. With electronic PID temperature control, with or without manual reset thermostat. Built-in cooled SSR.

Type 9STQ



Main applications: Liquid heating, hot water circuits, containers and buffer tanks.

These products have been engineered for precision liquid heating. The initial setting of the PID controller, however, is intended for a professional. The best results are obtained in stirred tanks.

They exist in:

- 5 standard power levels: 1kW; 1,5kW; 2kW; 3kW; 4kW
- 2 types of standard fittings: 1½" and M45x2
- 2 types of surface load density: 5W/cm² and 10W/cm². See technical introduction to optimize the surface load.

Heater tube material: 8mm dia. AISI 304 or Incolloy 800 (AISI 316; AISI 321; Incolloy 825 on request).

Fitting material: Brass, swiveling on housing, brazed on tubes. (AISI 304 or AISI 316, TIG welded, or brazed, models are available on request). Supplied without gasket and without nut. See accessories below.

Thread: 1 ¼" or 1 ½" BSPP (ISO 228). Metric thread M45x2 available on request.

Temperature control:

- Electronic temperature controller with double digital display of temperature set point and measured value. This microprocessor controller uses Fuzzy Logic technology. It reaches a predetermined set point more quickly, with minimal overshoot during the disturbances related to the rise or external load. It regulates with PID action, whose setting is simplified by the auto-tune function that automatically adjusts the parameters P, I and D (A clear User Manual is supplied). If the temperature sensor is broken, the output power is cut off and the error is displayed.
- Temperature display Accuracy: 0.2% of full scale.
- Temperature sensor: Pt100
- Display is configurable in degree or tenth of a degree.
- The two high or low alarm outputs can be set over the entire range of adjustment and have an adjustable differential.

Enclosure: Extremely robust, in thick PA66, designed for outdoor installation, IP65 and IK10. It also includes:

- A fuse to protect internal circuits.
- An illuminated on- off switch
- A polycarbonate transparent window allowing access to the settings. This window can be secured with seals. This case also includes a separate lid, with independent seals, providing access to electrical connections
- On the rear side is located an aluminum housing with cooling fins for a built in 25A SSR.

In models with failsafe manual reset limiter, reset can be accessed after opening the window.

Cable glands: Located on a removable mounting board, providing easier access for connections, fitted with one M25, PA66, and one more hole for M25, closed by a plastic cap.

Thermowell: In standard, one thermowell in AISI304, dia. 10mm, 135mm length.

Electric connections:

- Built-in terminal block, with 5 terminals 6mm² and 5 terminals 2.5mm².
- This terminal block is provided with a strap between terminals 1 and 2. By removing this strap, it is possible to connect an additional safety device, a remote control, or a timer.
- Auxiliary high alarm and low alarm contacts (3A 250V max.)

Support grid: 1 grid AISI 304 for lengths from 400 to 600mm, 2 grids above.

Not heating immersed zone: 50mm.

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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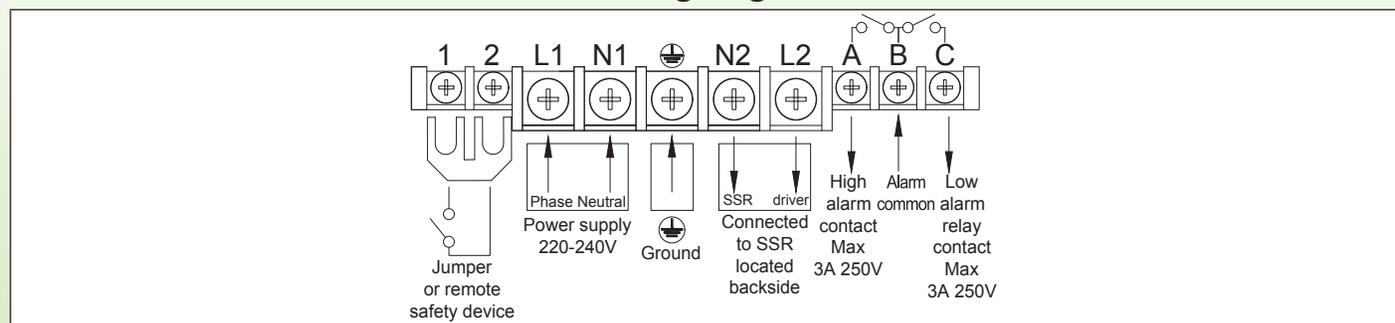
Surface load: standard 5W/cm² or 10W/cm², other values on request.

Voltage: 220-240V single phase only.

Standard options:

Manual reset limiter, preset at: 60°C, 80°C, 100°C, 110°C, 130°C. (140°F, 176°F, 212°F, 230°F, 266°F).

Wiring diagram



Main references

55W/cm²; 1½"* brass fitting, without manual reset thermostat.**

Power	1kW	1.5kW	2kW	3kW	4kW
Length (mm)	170	240	300	440	570
AISI 304 Reference	9STQA5QZ010V8170	9STQA5QZ015V8240	9STQA5QZ020V8300	9STQA5QZ030V8440	9STQA5QZ040V8570
Incolloy 800 reference	9STQA5QZ010VK170	9STQA5QZ015VK240	9STQA5QZ020VK300	9STQA5QZ030VK440	9STQA5QZ040VK570

10W/cm², 1½"* brass fitting, without manual reset thermostat.**

Power	1kW**	1.5kW	2kW	3kW	4kW
Length (mm)	135	135	170	240	300
AISI 304 Reference	9STQA5QZ010B8130	9STQA5QZ015V8130	9STQA5QZ020V8170	9STQA5QZ030V8240	9STQA5QZ040V8300
Incolloy 800 reference	9STQA5QZ010BK130	9STQA5QZ015VK130	9STQA5QZ020VK170	9STQA5QZ030VK240	9STQA5QZ040VK300

5W/cm², 1½"* brass fitting, with manual reset thermostat set at 100°C (212°F)****

Power	1kW	1.5kW	2kW	3kW	4kW
Length (mm)	170	240	300	440	570
AISI 304 Reference	9STQA5QZ010V817N	9STQA5QZ015V824N	9STQA5QZ020V830N	9STQA5QZ030V844N	9STQA5QZ040V857N
Incolloy 800 reference	9STQA5QZ010VK17N	9STQA5QZ015VK24N	9STQA5QZ015VK30N	9STQA5QZ030VK44N	9STQA5QZ040VK57N

10W/cm², 1½"* brass fitting, with manual reset thermostat set at 100°C (212°F)****

Power	1kW	1.5kW	2kW	3kW	4kW
Length (mm)	135	135	170	240	300
AISI 304 Reference	9STQA5QZ010B813N	9STQA5QZ015V813N	9STQA5QZ020V817N	9STQA5QZ030V824N	9STQA5QZ040V830N
Incolloy 800 reference	9STQA5QZ010BK13N	9STQA5QZ015VK13N	9STQA5QZ020VK17N	9STQA5QZ030VK24N	9STQA5QZ040VK30N

* M45x2 brass fitting instead of 1½", replace A5 by A9 in the reference.

** Manual reset thermostat set at 60°C, 80°C, 110°C, 130°C. (140°F, 176°F, 230°F, 266°F), replace the last character N by E, J, Q, U.

References of accessories in option (not included in the product, must be ordered separately):

Nuts

	Thread	1½"	M45x200
	Brass	9BRRA3000ELH303A	9BRRA3000ELH305A
	AISI304	9BRRA3000ELH006A	9BRRA3000ELH049A
	AISI316	9BRRA3000ELH203A	9BRRA3000ELH205A

Gaskets

	Thread	1½" - M45x200
	NBR	9BRJ03000ELH205A
	Fiber	9BRJ03000ELH007A
	PTFE	9BRJ03000ELH033A

Other accessories and drawings: see last section of this catalogue