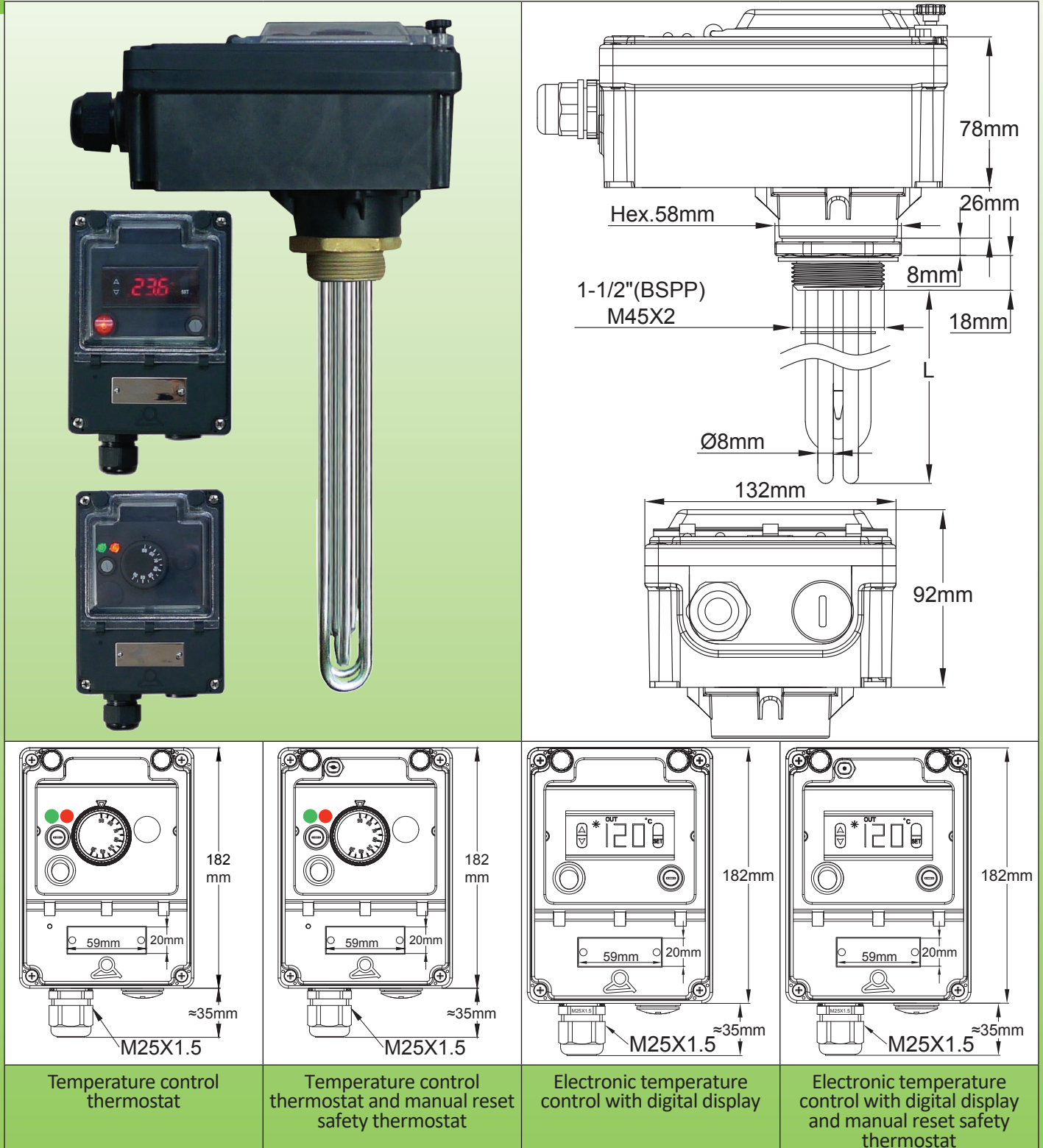




Immersion heaters with plastic connection box

Immersion heaters with 182mm × 130mm × 120mm plastic enclosure. Fittings 1½", M45x2. With mechanical thermostat or electronic temperature control. With or without manual reset thermostat.

Type 9STB



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

This series is intended for high-end low-power devices, single phase. It combines a modern aesthetic, a waterproof plastic housing, shock resistant, and settings viewing through a transparent window in polycarbonate. It is available with thermostat control or with an easy-to-use electronic controller, both of them with or without safety limiter.

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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They exist in:

- 4 standard power levels: 1kW; 1,5kW; 2kW; 3kW.
- 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: 1½" or 1 ½" BSPP (ISO 228). Metric thread M45x2 available on request.

Temperature control, 2 types available:

1/ **Electronic temperature controller with permanent digital display of temperature measured value.**

- Temperature display Accuracy: ±1°C (±2°F) ± one digit.

- Temperature range 0 to 120°C (-32+250°F).

- Temperature sensor: NTC

- Display is configurable in degree or tenth of a degree.

- On-off temperature control action (relay output).

- Adjustable differential.

- If the temperature sensor is broken, the output power is cut off and the error is displayed.

2/ **Mechanical thermostat**, temperature range 30-90°C (85-195°F).

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

- A fuse to protect internal circuits (only in electronic version).

- An on- off switch (Built on thermostat shaft on thermostat version).

- 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.

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 two thermowells in AISI304, dia.8 × 7mm, 135mm length.

Electric connections:

Made on a 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.

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

Not heating immersed zone: 50mm.

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

Voltage: 220-240V single phase only.

Standard options:

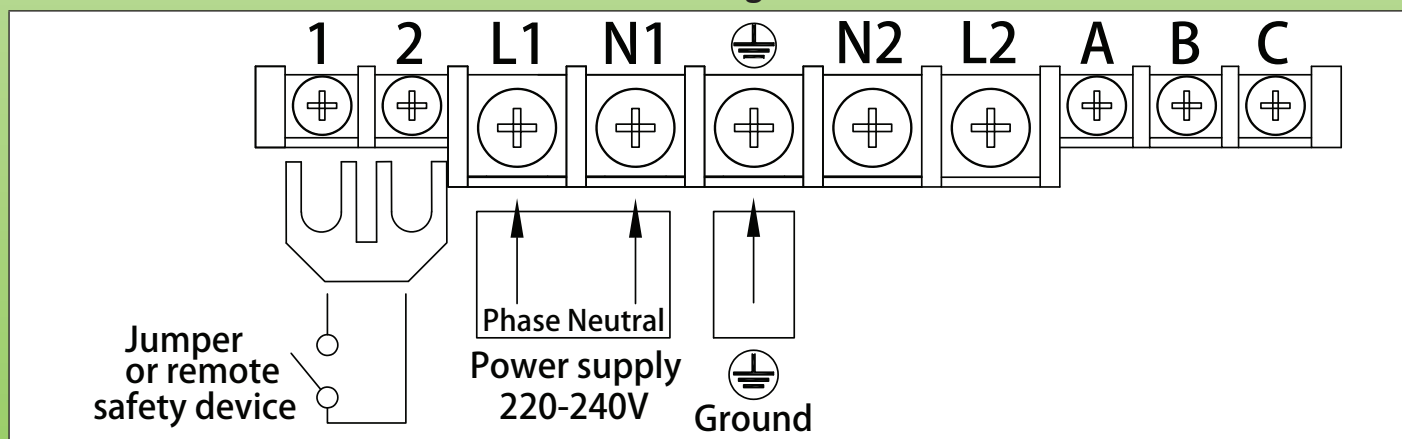
Manual reset limiter, preset at : 60°C, 80°C, 100°C, 110°C, 130°C. (140°F, 176°F, 212°F, 230°F, 266°F).

Variants on request:

- 30-110°C adjustable thermostat (85-230°F).

- Thermal cut out inside a thermowell.

Wiring



Main references with 30-90°C (85-195°F) adjustable thermostat*

5W/cm²; 1½" ** brass fitting, without manual reset thermostat.

Power	1kW	1.5kW	2kW	3kW
Length (mm)	170	240	300	440
AISI 304 Reference	9STBA5HV010V8170	9STBA5HV015V8240	9STBA5HV020V8300	9STBA5HV030V8440
Incolloy 800 reference	9STBA5HV010VK170	9STBA5HV015VK240	9STBA5HV020VK300	9STBA5HV030VK440



Immersion heaters with plastic connection box

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

Power	1kW***	1.5kW	2kW	3kW
Length (mm)	135	135	170	240
AISI 304 Reference	9STBA5HV010B8130	9STBA5HV015V8130	9STBA5HV020V8170	9STBA5HV030V8240
Incolloy 800 reference	9STBA5HV010BK130	9STBA5HV015VK130	9STBA5HV020VK170	9STBA5HV030VK240

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

Power	1kW	1.5kW	2kW	3kW
Length (mm)	170	240	300	440
AISI 304 Reference	9STBA5HV010V817N	9STBA5HV015V824N	9STBA5HV020V830N	9STBA5HV030V844N
Incolloy 800 reference	9STBA5HV010VK17N	9STBA5HV015VK24N	9STBA5HV015VK30N	9STBA5HV030VK44N

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

Power	1kW***	1.5kW	2kW	3kW
Length (mm)	135	135	170	240
AISI 304 Reference	9STBA5HV010B813N	9STBA5HV015V813N	9STBA5HV020V817N	9STBA5HV030V824N
Incolloy 800 reference	9STBA5HV010BK13N	9STBA5HV015VK13N	9STBA5HV020VK17N	9STBA5HV030VK24N

*Type with electronic temperature control: replace HV by HY in the reference.


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

***: only two heating elements.


**** 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