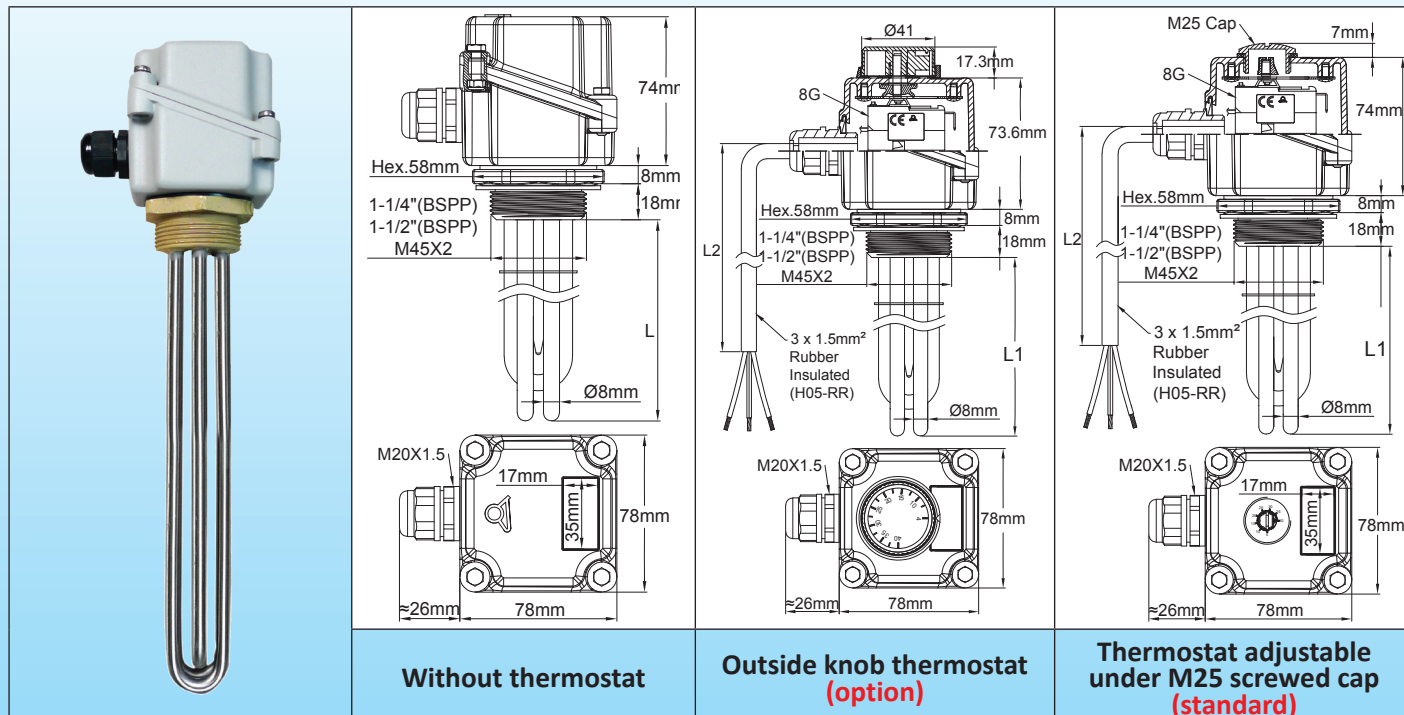




Immersion heaters with aluminum connection box

**Immersion heater with 78mm × 78mm × 74mm aluminum enclosure.
1¼", 1½", M45x2 fittings. With or without thermostat.
Type 9ST4**



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

These heaters are the smallest size with aluminum enclosure that can receive an adjustable thermostat. But there is not enough room inside to add a connection block. Therefore, models with thermostats are supplied wired with a 2 meters long rubber insulated cable, 3 × 1.5mm².

They exist in:

- 6 standard power levels: 1kW – 1.5kW - 2kW - 3kW - 4kW - 6kW.

- (4 and 6kW version does not exist with thermostat).

- 3 types of standard fittings: 1¼", 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: 1¼", 1½" BSPP (ISO 228) and metric thread M45x2 available on request.

Enclosure: 78 × 78 × 74mm, die-cast aluminum, 3mm wall thickness. Silicone foam gasket. Stainless steel cover screws with locking nuts, 2 inner earth terminals M4; Gray epoxy paint RAL7035. Protected against galvanic corrosion.

Ingress protection class: Water and dust: IP65; shock resistance: IK 10 (with metal cable glands and M25 metal plug).

Cable glands: M20, PA66. Nickel-plated brass on request.

Thermowell: They are supplied in standard with one thermowell in AISI304, dia.8 × 7mm, 135mm length, also included on heaters. Supplied without thermostat.

Heating element connections: Terminals with stainless steel screw, nut and stainless steel washer. Switching straps on 3 phases models.

Models with thermostats are made with a wired-in power cord, length 2m.

Temperature control: Models with thermostats can be set from 30 to 90°C (85-195°F). Thermostat knob access is under a M25 cap. External knob on request. Other temperature ranges on request. Models with thermostat are made only in single phase and for power up to 3kW only.

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 or three phases 380-400V (Star connection with neutral). 3 phases version cannot be made with a thermostat.

Variants on request:

- One or 2 heating elements only.

- 4-40°C (40-105°F), 0-60°C (32-140°F), or 30-110°C (86-230°F) thermostat.

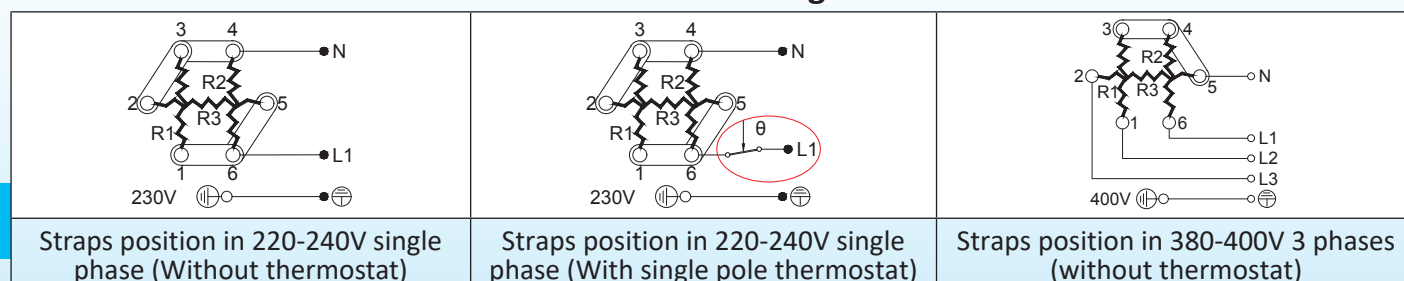
- Manual reset thermostat.

- One or two pilot lights.

Immersion heaters with aluminum connection box



Electric Wiring



Main references

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

Power	1kW	1.5kW	2kW	3kW	4kW	6kW
Length (mm)	170	240	300	440	570	840
AISI 304 Reference	9ST4G5E1010U8170	9ST4G5E1015U8240	9ST4G5E1020U8300	9ST4G5E1030U8440	9ST4G5E1040U8570	9ST4G5E1060U8840
Incolloy 800 reference	9ST4G5E1010UK170	9ST4G5E1015UK240	9ST4G5E1020UK300	9ST4G5E1030UK440	9ST4G5E1040UK570	9ST4G5E1060UK840

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

Power	1kW***	1.5kW	2kW	3kW	4kW	6kW
Length (mm)	135	135	170	240	300	440
AISI 304 Reference	9ST4G5E1010B8130	9ST4G5E1015U8130	9ST4G5E1020U8170	9ST4G5E1030U8240	9ST4G5E1040U8300	9ST4G5E1060U8440
Incolloy 800 reference	9ST4G5E1010BK130	9ST4G5E1015UK130	9ST4G5E1020UK170	9ST4G5E1030UK240	9ST4G5E1040UK300	9ST4G5E1060UK440

5W/cm², 1½" brass fitting, **with 30-90°C (85-195°F) thermostat, adjustment under M25 cap**

Power	1kW	1.5kW	2kW	3kW	4kW	6kW
Length (mm)	170	240	300	440	Not available with thermostat	
AISI 304 Reference	9ST4G5NS010V8170	9ST4G5NS015V8240	9ST4G5NS020V8300	9ST4G5NS030V8440		
Incolloy 800 reference	9ST4G5NS010VK170	9ST4G5NS015VK240	9ST4G5NS020VK300	9ST4G5NS030VK440		

10W/cm², 1½" brass fitting, **with 30-90°C (85-195°F) thermostat, adjustment under M25 cap**

Power	1kW**	1.5kW	2kW	3kW	4kW	6kW
Length (mm)	135	135	170	240	Not available with thermostat	
AISI 304 Reference	9ST4G5NS010B8130	9ST4G5NS015V8130	9ST4G5NS020V8170	9ST4G5NS030V8240		
Incolloy 800 reference	9ST4G5NS010BK130	9ST4G5NS015VK130	9ST4G5NS020VK170	9ST4G5NS030VK240		

* 1½" brass fitting instead of 1½", replace G5 by G4 in the reference. M45x2 brass fitting instead of 1½", replace G5 by G9 in the reference.

** This model has only 2 heating elements.

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

Nuts

	Thread	1½"	1½"	M45x200
	Brass	9BRR3000ELH302A	9BRR3000ELH303A	9BRR3000ELH305A
	AISI304	9BRR3000ELH032A	9BRR3000ELH006A	9BRR3000ELH049A
	AISI316	9BRR3000ELH020A	9BRR3000ELH020A	9BRR3000ELH020A

Gaskets

	Thread	1½"	1½" - M45x200
	NBR	9BRJ03000ELH206A	9BRJ03000ELH205A
	Fiber	9BRJ03000ELH052A	9BRJ03000ELH007A
	PTFE	9BRJ03000ELH032A	9BRJ03000ELH033A

Other accessories and drawings: see last section of this catalogue.