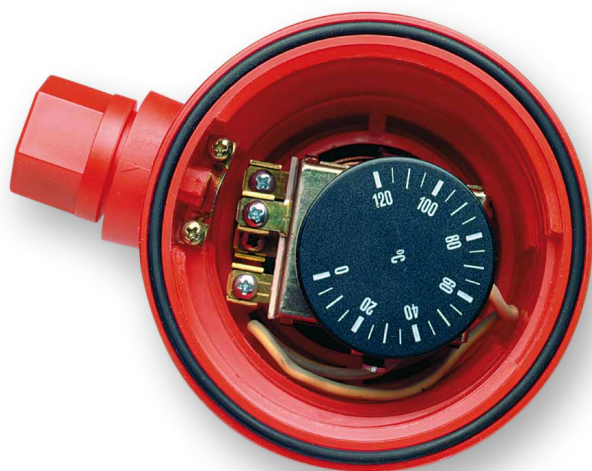


ROTKAPPE® Immersion Heaters with attached Rod-Type Temperature Controller ROTKOPF®



Immersion heaters with attached rod-type temperature controllers are ideal for space-saving heating and control, particularly in small tanks which require little heating power. The setpoint can be adjusted with the aid of a rotary knob in the terminal casing of the temperature controller. The heater is then switched on and off by the controller as needed to maintain the selected temperature.

The ROTKAPPE immersion heater and the ROTKOPF rod-type temperature controller are connected together in the factory and equipped with a connecting lead with a standard length of 1.6 m. This combination is available only for single-phase rated voltages up to 230V and rated powers of up to 2.3 kW.

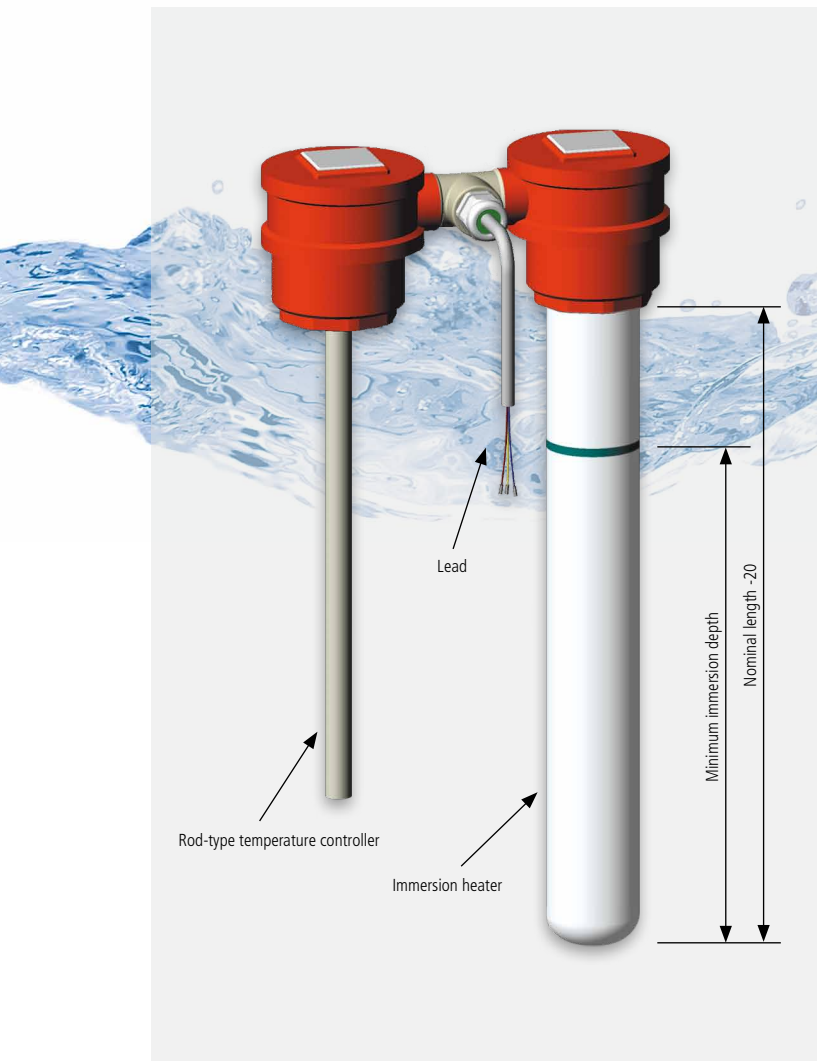
The immersion heater and the temperature controller are equipped as standard with the terminal casing BK (Ø93 mm), made of PP. This has the degree of protection IP 65 (hose-proof) in accordance with EN 60529. For adjustment of the setpoint, the terminal casing must be opened with the mounting wrench SB/9.

The immersion heater can be mounted on the tank with the aid of the support HB, the mounting sleeve EM or the holding sleeve HM.

Technical Data of Controller STRu

Control range	0...120°C
Contacts	1 changeover contact
Switched power	max. 2.3 kW (10A/230V=)
Switching hysteresis	±6K
Minimum temperature change	2K/min
Minimum immersion tube length	200 mm
Maximum immersion tube length	1000 mm

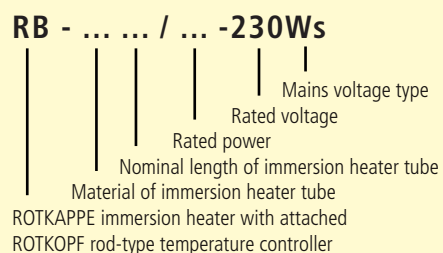




Type designations

On immersion heaters with attached rod-type temperature controllers, the type designation and the technical data are permanently printed on the rating plate welded into the cover.

All our products are unambiguously identified by article numbers.



Material Specifications Immersion Heater

Type	Tube diameter [mm]	Material
PS 54		Special hard porcelain, glazed
TG 50		Technical glass (hydrolytic class 1, acid class 1, alkaline class 2 according to DIN 12111, 12116 & 52322)
QS 52		Quartz glass (hydrolytic class 1, acid class 1, alkaline class 1, according to DIN 12111, 12116 & 52322)
FC 48		Polytetrafluorethylene (PTFE)-compound
KB 45		Stainless steel (material no. 316Ti)
TI 45		Titanium (material no. 3.7035)

Material Specifications Rod-Type Temperature Controller

Type	Tube diameter [mm]	Material
PP 16		Polypropylene
PTFE 12		Polytetrafluorethylene
KB 11		Stainless steel (material no. 316Ti)

Overview of Tubes for Immersion Heaters ROTKAPPE with attached Rod-Type Temperature Controller ROTKOPF

Immersion Heater Material	Surface Power Density [W/cm ²]								
			PS	TG	QS	FC	KB	TI	
	Nominal length [mm]	Minimum immersion depth [mm]							
	Rated power [kW]								
	315	0,4	225	1,6	1,7	-	1,8	1,9	1,9
	315	0,63	225	2,5	2,7	-	-	3,0	3,0
	400	0,63	275	1,9	2,0	-	2,1	2,3	2,3
	400	1,0	275	3,0	3,2	-	-	3,6	3,6
	500	1,0	360	2,0	2,2	2,1	2,3	2,4	2,4
	500	1,4	360	2,8	3,0	2,9	-	3,4	3,4
	630	1,25	460	1,9	2,0	2,0	2,1	2,3	2,3
	630	2,0	460	3,0	3,2	3,1	-	3,6	3,6
	800	1,6	560	1,9	2,1	2,0	2,2	2,3	2,3
	800	2,0	560	2,4	2,6	2,5	-	2,9	2,9
	1000	2,0	725	1,9	2,0	1,9	2,1	2,2	2,2

Rod-type Temperature Controller Material

PP PP PP PTFE KB PTFE