

## ME Heating Immersion Circulator

Upper middle class with ext. Pt100 sensor connection -20°C...200°C

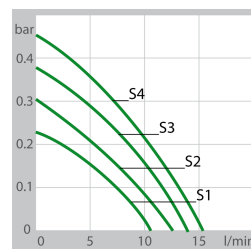
Heating Immersion Circulator for any bath tanks up to 50 liters

JULABO Heating Immersion Circulators are available for various bath tanks up to a capacity of 50 litres and come equipped with a bath clamp that fits onto all tanks with a wall thickness up to 26 mm. This clamp allows fast and problem-free assembling for existing as well as new bath tanks. The immersion depth is 16.5 cm (adjustable down to 14.5 cm). The immersed parts are made of high-quality stainless steel or plastic. The pump set, which is available as an accessory, provides pumping to external systems for provision of external temperature tasks. An integrated cooling coil for cooling-water connection is also available as an accessory.



### Your advantages

- VFD COMFORT DISPLAY
- Keypad for setpoints, warning/safety values and menu functions
- PID3 cascade temperature control
- ATC3 3-Point-Calibration
- Pt100 External sensor connection for measurement and control
- SMART PUMP, electronically adjustable pump stages
- Early warning system for low liquid level (DBGM 203 06 059.8)
- Adjustable high temperature cut-out, visible via display
- RS232 interface for online communication
- Integrated programmer for 10 program steps



● Pump capacity (Water)

### Technical Data

Order No.	9162000
Model series	TopTech
Category	Heating Immersion Circulators
Working temperature range (°C)	+20 ... +200
Temperature stability (°C)	±0.01
Setting / display resolution	0.01 °C
Integrated programmer	1x10 steps
Temperature Display	VFD
Heating capacity (kW)	2
Pump capacity flow rate (l/min)	11-16
Pump capacity flow pressure (bar)	0.23-0.45
External Pt100 sensor connection	integrated
Digital interface	RS232 Optional: Profibus

Ambient temperature	5...40 °C
Dimensions W x L x H (cm)	13 x 15 x 33
Weight (kg)	4
Classification according to DIN12876-1	Classification III (FL)
Cooling coil	optional
Usable immersion depth (cm)	8-14.5
Available voltage versions	230 V / 50-60 Hz 100-115 V / 50-60 Hz

For temperature applications near or below ambient temperature: use a cooling coil or JULABO immersion cooler.

## Characteristics

### Display



#### A perfect view

Ample, easy to read VFD Comfort display for simultaneous display of 3 values, warning functions, high temperature cut-off, pump stages (resolution 0.01 °C)



#### Pump stage and liquid level

Backlit indicator for selected pump stages and filling volume on Presto® PLUS, Magnum 91 & Forte HT

### Operation



#### Comfortable and detailed

Comfortable keypad with additional menu functions for pump stages, calibration, control parameters, programmer, warnings, etc.

### Temperature Control



#### For higher demands

PID Temperature control with drift compensation and adjustable parameters, improved temperature stability for external applications, temperature stability  $\pm 0.01$  °C internal,  $\leq \pm 0.1$  °C external



#### Highest measuring accuracy

'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration

### Technical Features



#### Clever pump system

Reliable and consistent pump capacity, electronically adjustable pump stages



#### Control from the external application

External Pt100 sensor connection for precise measurement and control directly in the external application



#### Serial connection

RS232 interface for PC connection, e.g. for data communication and recording of measured values



#### Easy program control

Integrated programmer for the execution of time and temperature dependant profiles, 1 temperature profile with 10 steps max., with real time clock



#### For flammable bath fluids

Classification III (FL) according to DIN 12876-1

### Warning & Safety Functions



#### Early warning system for low liquid level

Maximum safety for applications, optical and audible alarm, allows user to refill bath fluid before the unit shuts down



#### Early warning system for high/low temperature limits

Maximum safety for applications, optical and audible alarm, convertible to automated cut-off function



#### Enhanced protective functions

Maximum safety, adjustable high temperature cut-off or dry-running protection, additional display of setpoints permits easy and precise adjustments