

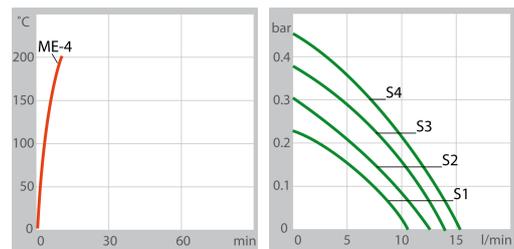
ME-4 Heating Circulator

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

JULABO constant temperature circulators with a stainless steel bath tank for internal and external temperature control tasks. They are designed primarily for external temperature control. They have elevated performance for controlling the temperature of large or open systems. Smaller objects may be inserted directly into the circulator's bath at the same time. Models of the TopTech and HighTech series are available with a variety of bath sizes and functional characteristics. Bath covers and a variety of bath inserts for laboratory glassware are available as accessories.

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



- Heat-up time (thermal)
- Pump capacity (Water)

Technical Data

Order No.	9162504
Model series	TopTech
Category	Heating Circulators
Working temperature range (°C)	+20 ... +200
Temperature stability (°C)	±0.01
Setting / display resolution	0.01 °C
Integrated programmer	1x10 steps
Temperature Display	LED
Heating capacity (kW)	2
Pump capacity flow rate (l/min)	11-16
Pump capacity flow pressure (bar)	0.23-0.45
Bath opening / bath depth (W x L / D cm)	13 x 15 / 15
Pump connections	M10x1
Barbed fittings diameter (inner dia. / mm)	8 / 10
Filling volume liters	4.5
External Pt100 sensor connection	integrated

Digital interface	RS232 Optional: Profibus
Ambient temperature	5...40 °C
Dimensions W x L x H (cm)	21 x 42 x 38
Weight (kg)	9.6
Classification according to DIN12876-1	Classification III (FL)
Included with each unit	2 barbed fittings suitable for tubing 8 and 10 mm inner dia. (pump connections M10x1 female)
Cooling coil	integrated
Bath tank	Stainless steel
Available voltage versions	230 V / 50-60 Hz 100-115 V / 50-60 Hz

Built-in cooling coil for tap water connection for temperature applications below or near ambient temperatures are integrated.

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 ± 0.01 °C internal, ± 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

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



For flammable bath fluids

Classification III (FL) according to DIN 12876-1