

CIRCULATING BATHS

Temperature Controllers

Controller Type	Advanced Programmable	Advanced Digital	Standard Digital	MX
Maximum Temperature	200°C	200°C	170°C	135°C
Temperature Stability	±0.005°C	±0.01°C	±0.04°C	±0.07°C
Swivel 180™ Rotating Controller	•	•	•	
Pump	Variable-Speed	Variable-Speed	2-Speed	1-Speed
Pump Pressure (maximum) psi (kPa) 60Hz/50Hz	4.3 (29.6) / 3.6 (24.8)	4.3 (29.6) / 3.6 (24.8)	3.5 (24.1) / 2.9 (20.0)	2.3 (15.9) / 1.8 (12.4)
Pressure Flow Rate (maximum) gpm (l/min) 60Hz/50Hz	5.3 (20.1) / 4.4 (16.7)	5.3 (20.1) / 4.4 (16.7)	2.9 (11.0) / 2.7 (10.2)	3.6 (13.5) / 3.1 (11.9)
Suction Flow Rate (maximum) gpm (l/min) 60Hz/50Hz	3.9 (14.7) / 3.2 (12.2)	3.9 (14.7) / 3.2 (12.2)		
Closed-Loop Operation	•	•	•	•
Open-Loop Operation	•	•		
Fluid Optimization/Specific Heat Tuning	•	•		
Temperature Calibration Capability	10-point	1-point	1-point	1-point
WhisperCool® Environmental Control System	•	•	•	•
Inert Gas Reservoir Purge	•	•	•	
Display Type & Size	SmartTouch Color LCD 4.3"	SmartView LCD Touch-Pad 3.75"	EasyView LCD Touch-Pad 3.75"	EasyView LCD 3.25"
Enhanced Data Display Capability	7 selectable views	Message Bar		
Multi-Language Menus or Prompts	11 languages	4 languages	Icon/English	Icon/English
Displays Temperature Trend	•			
Time/Temperature Programs & Steps	Open-Mode			
Date & Time with Calendar Start/Stop	•			
Timer	•	•		
On-Screen Help or Prompts	•	•		
External Temperature Control Capability (Pt100)	•	•		
Data logging to USB Flash Drive	•	•		
RS232/RS485 Serial Output	•	•	RS232	
Remote On/Off Capability	•			
USB	•	•		
Ethernet	•	•		
Software Support for LabVIEW™ included	•			
Backlit Display	•	•	•	•
Automatic Loss of Power Reset	Selectable	Selectable	Yes	Yes
Safety Class (DIN 12876-1)	III	III	I	I
Over-Temperature Protection	•	•	•	•
Failsafe Heater Control	•	•	•	•
High and Low Temperature Limits/Alarms	•	•	•	•
Low-Liquid-Level Safety	•	•	•	•
Alarm and Fault Indicators	Message	Message	Icon	Icon



Advanced Programmable



Advanced Digital



Standard Digital



MX

Temperature Controller Features



Features include patented Swivel 180™ and a SmartTouch touchscreen. (Select Models Only)

Integrated Circulating Baths

Refrigerated/Heated Circulating Baths

Capacity	7 Liter (Low Profile)	7 Liter	7 Liter	15 Liter	15 Liter	20 Liter	28 Liter	45 Liter	75 Liter
Maximum Temperature ¹	200°C	200°C	200°C	200°C	200°C	200°C	200°C	135°C	100°C
Minimum Temperature	-20°C	-20°C	-40°C	-30°C	-40°C	-30°C	-30°C	-25°C	-20°C
Cooling Capacity @ 20°C	200 W	200 W	360 W	915 W	1000 W	915 W	915 W	1400 W	1400 W
Working Access (L x W x D)	6.2 x 5.6 x 5 in 15.7 x 14.2 x 12.7 cm	6.2 x 5.6 x 5 in 15.7 x 14.2 x 12.7 cm	6.2 x 5.6 x 5 in 15.7 x 14.2 x 12.7 cm	8.4 x 10.9 x 5.5 in 21.2 x 27.6 x 14 cm	8.4 x 10.9 x 5.5 in 21.2 x 27.6 x 14 cm	9.9 x 12.5 x 5.5 in 25 x 31.6 x 14 cm	12.4 x 14.1 x 5.5 in 31.4 x 35.9 x 14 cm	21.6 x 15.7 x 5.5 in 54.9 x 39.8 x 14 cm	21.6 x 15.7 x 9.4 in 54.9 x 39.8 x 23.9 cm
Drain	•	•	•	•	•	•	•	•	•
LidDock™	•	•	•	•	•	•	•		
Advanced Programmable	AP7LR-20	AP07R-20	AP07R-40	AP15R-30	AP15R-40	AP20R-30	AP28R-30	AP45R-20	AP75R-20
Advanced Digital	AD7LR-20	AD07R-20	AD07R-40	AD15R-30	AD15R-40	AD20R-30	AD28R-30	AD45R-20	
Standard Digital	SD7LR-20	SD07R-20		SD15R-30		SD20R-30	SD28R-30		
MX	MX7LR-20	MX07R-20		MX15R-30		MX20R-30			

1. Maximum temperature is controller-dependent.



Heated Circulating Baths

Capacity	7 Liter	15 Liter	20 Liter	28 Liter
Maximum Temperature ¹	200°C	200°C	200°C	200°C
Minimum Temperature ²	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C
Working Access (L x W x D)	6.2 x 5.6 x 5 in 15.7 x 14.2 x 12.7 cm	8.4 x 10.9 x 5.5 in 21.2 x 27.6 x 14 cm	9.9 x 12.5 x 5.5 in 25 x 31.6 x 14 cm	12.4 x 14.1 x 5.5 in 31.4 x 35.9 x 14 cm
Tank Material	Insulated Stainless Steel	Insulated Stainless Steel	Insulated Stainless Steel	Insulated Stainless Steel
Drain	•	•	•	•
Tap Water Cooling-Coil	•	•	•	•
LidDock™	•	•	•	•
Advanced Programmable	AP07H200	AP15H200	AP20H200	AP28H200
Advanced Digital	AD07H200	AD15H200	AD20H200	AD28H200
Standard Digital	SD07H170	SD15H170	SD20H170	SD28H170
MX	MX07H135	MX15H170	MX20H135	

1. Maximum temperature is controller dependent.

2. Minimum temperature is shown with no external heat load.



Model 210 Heated Recirculator

Features

- Low-cost pumping and heating for closed-loop applications
- Provides accurate control within a frequently used temperature range
- Ideal for applications such as thawing plasma, tempering photographic solutions or circulating to an external device
- Over-Temperature Protection
- Failsafe Heater Control



Working Temperature	Ambient to 70°C
Temperature Stability	±0.2°C
Heater Wattage	750 W
Pump Type	Single-speed Centrifugal
Maximum Pressure	2 psi (0.13 bar)
Maximum Flow Rate	3.0 gpm (11.1 l/min)
Overall Dimensions (L x W x H)	8 x 9.5 x 8 in (20.3 x 24.1 x 20.3 cm)
Process Connections	1/2" barb fittings
Part Numbers	040300 (120VAC, 50/60Hz), 040301 (240VAC, 50/60Hz)

Open Tank Circulating Baths

Stainless Steel Open Tank Circulating Baths

Capacity	6 Liter	10 Liter	20 Liter	28 Liter
Maximum Temperature ¹	150°C	150°C	150°C	150°C
Minimum Temperature ²	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C
Working Access (L x W x D)	3.9 x 4.3 x 6 in 10 x 11 x 15.2 cm	3.9 x 10.1 x 6 in 9.9 x 25.5 x 15.2 cm	10.4 x 9 x 6 in 26.4 x 22.8 x 15.2 cm	10.1 x 8.4 x 8 in 25.7 x 21.4 x 20.3 cm
Tank Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Advanced Programmable	AP06S150	AP10S150	AP20S150	AP28S150
Advanced Digital	AD06S150	AD10S150	AD20S150	AD28S150
MX	MX06S135	MX10S135	MX20S135	MX28S135



Polycarbonate Open Tank Circulating Baths

Capacity	8 Liter	11 Liter	14 Liter	17 Liter	23 Liter	28 Liter
Maximum Temperature ¹	85°C	85°C	85°C	85°C	85°C	85°C
Minimum Temperature ²	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C
Working Access (L x W x D)	4.1 x 6.1 x 8 in 10.5 x 15.6 x 20.3 cm	8.3 x 6.1 x 8 in 21 x 15.6 x 20.3 cm	12.4 x 6.1 x 8 in 31.4 x 15.6 x 20.3 cm	4.1 x 12 x 8 in 10.5 x 30.5 x 20.3 cm	8.3 x 12 x 8 in 21 x 30.5 x 20.3 cm	12.4 x 12 x 8 in 31.5 x 30.5 x 20.3 cm
Tank Material	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
Drain				•	•	•
Advanced Programmable	AP08P100	AP11P100	AP14P100	AP17P100	AP23P100	AP28P100
MX	MX08P100	MX11P100	MX14P100	MX17P100	MX23P100	MX28P100



MX Immersion Circulator

Capacity	Up to 28 Liters	
Maximum Temperature ¹	135°C	
Minimum Temperature ²	Ambient +10°C	
Temperature Stability	±0.07°C	
Electrical Configurations	120V, 60Hz	240V, 50Hz
Maximum Pressure psi (kPa)	1.8 (12.4)	1.5 (10.3)
Maximum Flow Rate gpm (L/min)	3.4 (12.8)	2.8 (10.6)



1. Maximum temperature is dependent on tank material. Immersion Circulator's maximum temperature is dependent on fluid volume.
2. Minimum temperature is shown with no external heat load.

13 Liter Refrigerated Open Bath

- Continuous cooling to 0°C
- Designed to run at maximum cooling; requires heated thermostat for temperature control
- Ideal for applications where bath temperatures at or below ambient are required

Working Temperature	0° to 150°C	
Reservoir Size	13 Liter	
Tank Material	Stainless Steel	
Electrical Configurations	120V, 60Hz, 13A	240V, 50Hz, 7A
Cooling Capacity @ 20° C	400W	330W
10° C	270W	225W
0° C	90W	75W
Working Access (L x W x D)	9 x 11.75 x 7.75 in (22.9 x 29.8 x 19.7 cm)	
Overall Dimensions (L x W x H)	13.5 x 22 x 10 in (34.3 x 55.9 x 25.4 cm)	

