

## PRESTO A80

### temperature control system / process system

Reactor temperature control, tests for all kinds of substances or temperature simulation – the new PRESTO are made for highly precise temperature control and rapid temperature changes. PRESTO provide large heating and cooling capacities covering a working temperature range from -92 °C to +250 °C. Highly efficient components allow extremely fast compensation of exothermic and endothermic reactions. Lab users benefit from high flow rates, constant pressure, and a controlled build-up of pump pressure. Changes in the temperature-control liquid's viscosity are balanced dynamically. Permanent internal monitoring and self-lubricating pumps contribute to the new PRESTO's long service life. A special feature of the new PRESTO® is the integrated 5.7" industrial touch screen. All important information is displayed clearly and concisely enhancing ease of use considerably. The new PRESTO® can be operated intuitively with the tip of your finger. As the new PRESTO® operate whisper quiet, you will hardly hear them in your laboratory. Even high room temperatures of up to +40 °C will not make the new PRESTO® sweat. Maintenance-free pumps and drives guarantee operational readiness. Multiple interfaces permit remote control of the PRESTO® across networks and in superordinated control systems. The Design does away with venting slots at the sides. The required installation space is reduced to an absolute minimum.



**Made**  
in Germany

### Your advantages

- For highly precise, external temperature applications
- Rapid heating and cooling
- Fast compensation of exothermic reaction
- Wide working temperature ranges without changing fluids
- Highest performance with small footprint
- Space-saving design optimizes space utilization in your lab
- NEW 5,7" industrial color TFT touch screen
- well-organized view of important information with unmatched, intuitive user friendliness
- Up to 3 user level with password management
- NEW USB (Host und Device)
- NEW Ethernet
- NEW SD-Card slot
- RS232 / optional RS485 / optional Profibus DP
- Stand-by input
- Filling system accessible from the top
- Removable venting grid for simplified removal of dust

### Technical Data

Order No.	9420801
Category	Temperature Control PRESTO
Working temperature range (°C)	-80 ... +250
Temperature stability (°C)	0.01 ... ±0.05
Setting / display resolution	0.01 °C
Integrated programmer	8x60 steps

Temperature Display	TFT Touchscreen																
Heating capacity (kW)	1.5																
Cooling capacity (Medium Ethanol)	<table border="1"> <tr> <td>°C</td> <td>200</td> <td>100</td> <td>0</td> <td>-20</td> <td>-40</td> <td>-60</td> <td>-80</td> </tr> <tr> <td>kW</td> <td>1.2</td> <td>1.1</td> <td>1.2</td> <td>1.1</td> <td>1.1</td> <td>0.65</td> <td>0.1</td> </tr> </table>	°C	200	100	0	-20	-40	-60	-80	kW	1.2	1.1	1.2	1.1	1.1	0.65	0.1
°C	200	100	0	-20	-40	-60	-80										
kW	1.2	1.1	1.2	1.1	1.1	0.65	0.1										
Pump capacity flow rate (l/min)	16 ... 40																
Pump capacity flow pressure (psi)	1.45...18.85																
Pump connections	M24x1.5																
Refrigerant	R23, R507																
External Pt100 sensor connection	integrated																
Digital interface	RS232, RS485, Optional Profibus, SD memory card, USB, Ethernet, Modbus																
Ambient temperature	5 ... 40 °C																
Dimensions W x L x H (inch)	16.9 x 25.6 x 49.5																
Weight (LBS)	362																
Classification according to DIN12876-1	Classification III (FL)according to DIN 12876-1																
Analog connection input / output	Optional																
Cooling of compressor	2-stage Air																
Power requirement V / Hz / A	208/60/15																
Available voltage versions	230 V / 50 Hz 230 V / 60 Hz 208 V / 60 Hz																

## Characteristics

### Display

**TFT DISPLAY** **State-of-the-art display technology**  
 TFT Display for comfortable user guidance, colored display of measurement values, graphs and control options, user-defined views

**ACCESS LEVELS** **Convenience for several users**  
 Administrator level for customizing instrument settings, user levels with limited permissions for fast and safe defined access, password protection, all levels adjustable

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

### Operation

**TOUCH** **Optimal ease of use**  
 Touch screen for direct operation via display

### Temperature Control

**ICC** **For perfect results**  
 'Intelligent Cascade Control', automatic & self optimizing adjustment of PID control parameters, temperature stability  $\pm 0.01$  °C ...  $< \pm 0.2$  °C

**ATC<sup>3</sup>** **Highest measuring accuracy**  
 'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration

**HELP** **Instructions inside**  
 Help menus and explanations in plain text for all control options, help messages and warning messages

**TCF** **Full control**  
 'Temperature Control Features', for individual optimization, access to all important control parameters, additional settings for band limit, limits, co-speedfactor etc.

### Refrigeration Technology

**GRID** **Consistent cooling capacity**  
 Easily removable venting grid for quick and easy cleaning

**MULTI LINGUAL** **Multilingual user guidance**  
 Language selection for display of control options, notifications and warning messages via touchscreen

**ACC** **100 % Cooling capacity**  
 'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



### Energy saving cooling

Proportional cooling control for automatic adjustment of cooling power or temporary switch-off of compressor as needed to save up to 90 % energy in comparison to unregulated cooling machines



### Quiet as a whisper

Efficient components produce only a minimal sound decibel level



### Quick support

If an error occurs, the integrated Black-Box function permits fast diagnosis by the JULABO service team



### Space-saving footprint

All connections as well supply and exhaust air are located at the front or rear, no venting grids on the sides, units can be placed close to each other or the application

## Technical Features



### Intelligent pump system

Reliable and consistent pump capacity, electronically adjustable pump stages or pressure value, automatic adjustment of pump capacity to viscosity



### Continuous operation up to +40 °C

Robust temperature control instrument, continuous operation even at ambient temperatures of up to +40 °C



### Communication via networks

For the remote control of instruments via Ethernet networks, full access to all functions of the unit via a networkcapable PC



### Easy transport by one person

Ergonomic design facilitates moving and positioning by one person



### Intelligent communication

USB connection for data exchange (e.g. service data) or for wireless remote control via WirelessTEMP®



### Filling level at a glance

Backlit indicator for selected pump stages and filling volume



### Data exchange via SD-Card

For data exchange (e.g. service data) via SD memory card



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

Maximum safety for applications, optical and audible signal when limits are exceeded.



### Connections according to standard

RS232/RS485 dual-interface for serial data transmission according to EIA-485 industry standard (2-wire bus technology), upgradable with Profibus DP



### Duplicate safety

Adjustable high temperature cut-off for internal tank and for integrated expansion vessel



### Comfortable program control

Integrated programmer for the execution of time and temperature dependant profiles, 8 temperature profiles with 60 steps max., with real time clock



### For flammable bath fluid

Classification III (FL) according to DIN 12876-1

## Warning & Safety Functions

### JULABO Contact

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