

## PRODUCT DATA SHEET

Standing: 2024-03-20

LAUDA Proline Kryomat RP 4090 CW  
Cooling thermostat 400 V; 3/N/PE; 50 Hz  
Part Number: L001659

### Features

- Thermostatic bath/circulator with latest microprocessor technology and integrated cooling system
- Back-lit graphic LCD display with high resolution and different display modes
- Additional green LED display for temperature
- Input either via cursor keys, numeric soft keys or both. Additional Tmax key for overtemperature
- Command console can be detached and used as remote control
- EasyUse system for simple operation of the whole unit
- SelfCheck Assistant for system diagnosis
- Fully electronic continuous controller with PID action for internal & external control
- PowerAdapt system for the use of the maximum possible amount of heat permitted by the power supply system
- Low level and overtemperature protection for use with non-flammable liquids
- Optically decoupled RS 232/485 interface integrated as a standard
- Option for upgrading with up to 2 interfaces (RS 232/485, Profibus, analogue or contact modules, Ethernet-USB module)
- Programmer with 150 temperature/time segments that can be separated into 5 programs
- Timer function for switching on the thermostat, entering the standby mode or running of programs
- LAUDA Vario pump with 4 selectable output steps
- Adjustment of bath circulation according to application
- Pump connectors on the side and in the back, installed bypass
- SmartCool system for energy-saving digital cooling management including compressor on-off control
- Electronically-controlled heating of bath edge and bath bridge prevents moisture in the atmosphere from condensing and freezing at low temperatures
- Condenser cooling Water
- Utilises traditional refrigerants (HFCs) in accordance with European legislation to control F-gases (EU) 573/2024



Reserve technical changes



Working temperature min.  
-90 °C



Working temperature max.  
200 °C

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Dr. Ralf Hermann, Dr. Marc Stricker  
Beirat: Dr. Gerhard Wobser

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### Technical Features (according to DIN 12876)

Working temperature range	-90 ... 200 °C
Ambient temperature range	5 ... 40 °C
Temperature stability	0.05 ± K
Heater power max.	3.5 kW
Power consumption max.	7 kW
Current max.	16 A
Pump Pressure max.	0,5 bar
Pump flow rate max. (pressure)	19 L/min
In / Outlet connection thread (outside)	M16 x 1
Bath volume min. / max.	32.0 / 44.0 L
Size of bath (W x D x H)	350 x 350 x 250 mm
Recommended cooling water temperature	15 °C
Cooling water flow rate	11.7 L/min
Maximal pressure cooling water	10 bar
Overall dimensions (WxDxH)	600 x 700 x 1216 mm
Weight	160 kg
Refrigerant stage 1	R-452A (GWP 2140); 1.600 kg; 3.4 t CO <sub>2</sub> -eq
Refrigerant stage 2	R-508B (GWP 13400); 0.730 kg; 9.8 t CO <sub>2</sub> -eq
Power supply	400 V; 3/N/PE; 50 Hz
Power plug	Power cord with plug (IEC 60309, 5-pol, CEE, red, 16 A)

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Temperature	Pump stage	Heat transfer liquid	Cooling Capacity 50 Hz
200 °C	2	Thermal oil	4 kW
20 °C	2	Ethanol	4 kW
0 °C	2	Ethanol	3.7 kW
-20 °C	2	Ethanol	3.1 kW
-30 °C	2	Ethanol	2.7 kW
-40 °C	2	Ethanol	2 kW
-50 °C	2	Ethanol	1.6 kW
-60 °C	2	Ethanol	1.3 kW
-70 °C	2	Ethanol	0.8 kW
-80 °C	2	Ethanol	0.5 kW
-90 °C	2	Ethanol	0.15 kW

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### Standard accessories

- 1 Bath cover
- 4 screw caps, 4 closing plugs
- 2 nipples 13 mm for pump connectors

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