

PRODUCT DATA SHEET

Published: 2026-07-09

LAUDA Universa U 12 M

Heating thermostat 200-240 V; 50/60 Hz

Part Number: L004166

Features

- Bath circulation thermostat with advanced electronics ensures precise control accuracy
- Future-proof thanks to modularity: LAUDA Universa with interchangeable control head and heating/cooling base allows flexible adaptation to current and future requirements.
- Clear overview, intuitive operation: The 5-inch colour TFT display simultaneously shows temperature values with a progression graph, offers clear menu navigation in six languages and clear operating status icons - easily controlled via cursor and soft keys.
- Focus on safety: The dedicated Tmax button provides convenient access to the essential overtemperature protection setting during commissioning.
- Versatile pressure-suction pump: The LAUDA Varioflex pump, a powerful pressure-suction pump, offers eight selectable performance levels, adjustable flow rate distribution for internal/external circulation for optimal volume flow and pressure
- Ball bearing pump for extreme requirements: Guarantees safe operation with highly viscous and dense heat transfer fluids as well as with impurities in the temperature control bath.
- Easily accessible front switch on the control head allows the pump output to be adjusted during operation.
- Adaptive bath edge ventilation (patent application): - Prevents icing and condensation - Stops water entering the bath - Blocks vapors to protect electronics. To increase operational safety and extend service life.
- Extensive functionality with programmer, safe mode, calibration options, controller self-adaptation and weekly planner for precise and flexible process control.
- Intelligent remote control and monitoring: Integrated web server allows flexible remote control in the company network via the LAUDA Command app or browser-based, secured by PKI and 2-factor authentication. The connection to LAUDA.LIVE enables global, cloud-based data analysis and remote maintenance.
- Maximum networking: Comprehensive connectivity for almost any application thanks to standard Ethernet, USB and interface for an external Pt100 as well as eleven optional interface modules.
- Comprehensive safety functions: - Effective over- and under-level protection - Adjustable overtemperature protection with acoustic alarm - Automatic system diagnostics at start-up with alarm and error message display - Smart temperature control media management with automatic limit value adjustment. For reliable operation and improved safety of your valuable samples.



Reserve technical changes

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Beirat: Dr. Gerhard Wobser

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Working temperature min.
70 °C



Working temperature max.
300 °C

Technical Features

Working temperature range	70 ... 300 °C
Working temperature range with external cooling	20 ... 300 °C
Operating temperature range	-30 ... 300 °C
Ambient temperature range	5 ... 40 °C
Temperature stability	0.01 ± K
Heating capacity range	2.8 ... 3.7 kW
Power consumption max.	3.8 kW
Current max.	16 A
Size of bath (W x D x H)	200 x 200 x 200 mm
Bath opening (WxT)	200 x 200 mm
Bath volume min. / max.	8.5 / 13.0 L
Pump Pressure max.	0,7 bar
Pump suction max.	0,4 bar
Pump flow rate max. (pressure)	25 L/min
Pump Flow rate max. (suction)	23 L/min
In / Outlet connection thread (outside)	M16 x 1
In / Outlet Ø olives	13 mm
Overall dimensions (WxDxH)	280 x 450 x 497 mm
Weight	19 kg
Power supply	200-240 V, 50/60 Hz
Power plug	Power cord with plug (NEMA 6-20P)

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Power cord with plug (NEMA 6-20P)

Standard accessories

- 1 Bath cover
- Pump connection set with M16x1 stainless steel connections
- Cooling coil with M16x1 stainless steel connections
- 2 hose olives 13.5 mm, 2 union nuts

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HEATING PERFORMANCE Heat transfer liquid: Water

Bath temperature °C



- 1 U 8 M
- 2 U 12 M
- 3 U 16 M
- 4 U 20 M
- 5 U 40 M

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PUMP CHARACTERISTIC Heat transfer liquid: Water

Pressure bar



Suction

Flow rate L/min

- 1 Stage 1
- 2 Stage 2
- 3 Stage 3
- 4 Stage 4
- 5 Stage 5
- 6 Stage 6
- 7 Stage 7
- 8 Stage 8

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