

°LAUDA

NEW



LAUDA ULTRATEMP

High-performance temperature control
for biotechnology and pharmaceutical engineering

°FAHRENHEIT. °CELSIUS. °LAUDA.

LAUDA Ultratemp



**Robust and easy to clean**

LAUDA Ultratemp process thermostats are available with protection level IP 54 as standard. The high-quality stainless steel housing is protected against splash water and allows for easy cleaning of the surfaces.

**Easy operation and remote monitoring**

Intuitive operation is provided directly at the device via function buttons and an LCD. Furthermore, the devices can be controlled via PC with an integrated web server. The devices are prepared for the cloud-based digital applications from LAUDA. These offer intelligent analysis and monitoring tools, as well as remote maintenance functions that maximize the operating time, reliability and performance of all LAUDA devices.

**Application-optimized equipment**

LAUDA Ultratemp process thermostats enable exact regulation to an external temperature within a range of -5 to 60 °C. Their high temperature stability of ± 0.5 K guarantees a precise temperature in the application. The water-cooled design minimizes the heat emitted to the environment. Use with the non-flammable liquids water or water-glycol provides easy handling and low operating costs.

**Can be used worldwide**

The devices are available with a 400 V; 3/PE; 50 Hz & 460 V; 3/PE; 60 Hz bi-frequency power supply and can therefore be used worldwide. There is also a device model with 400 V; 3/PE; 50 Hz, which has been optimized for a mains frequency of 50 Hz. All variants can be operated within an ambient temperature range of -15 to 50 °C.

**Powerful and dynamic**

Typical biotech and industrial applications for the new LAUDA Ultratemp process thermostats require high heating and cooling output within a moderate temperature range. High external volumes can be quickly heated up and cooled down again with outputs from 25 to 50 kW.

LAUDA Ultratemp process thermostats

Scope of equipment and functions



Robust and application-optimized

- Stainless steel housing
- LCD with menu guidance in plain text
- Protection class IP 54 (suitable for outdoor installation)
- Digital display of the pump pressure
- Operation with non-flammable liquids (water, water/glycol)



High-quality components

- High-performance pump
- Integrated water filter
- Integrated heater
- Water-cooled condenser
- Stainless steel water inlet and water outlet connections



Extensive connectivity

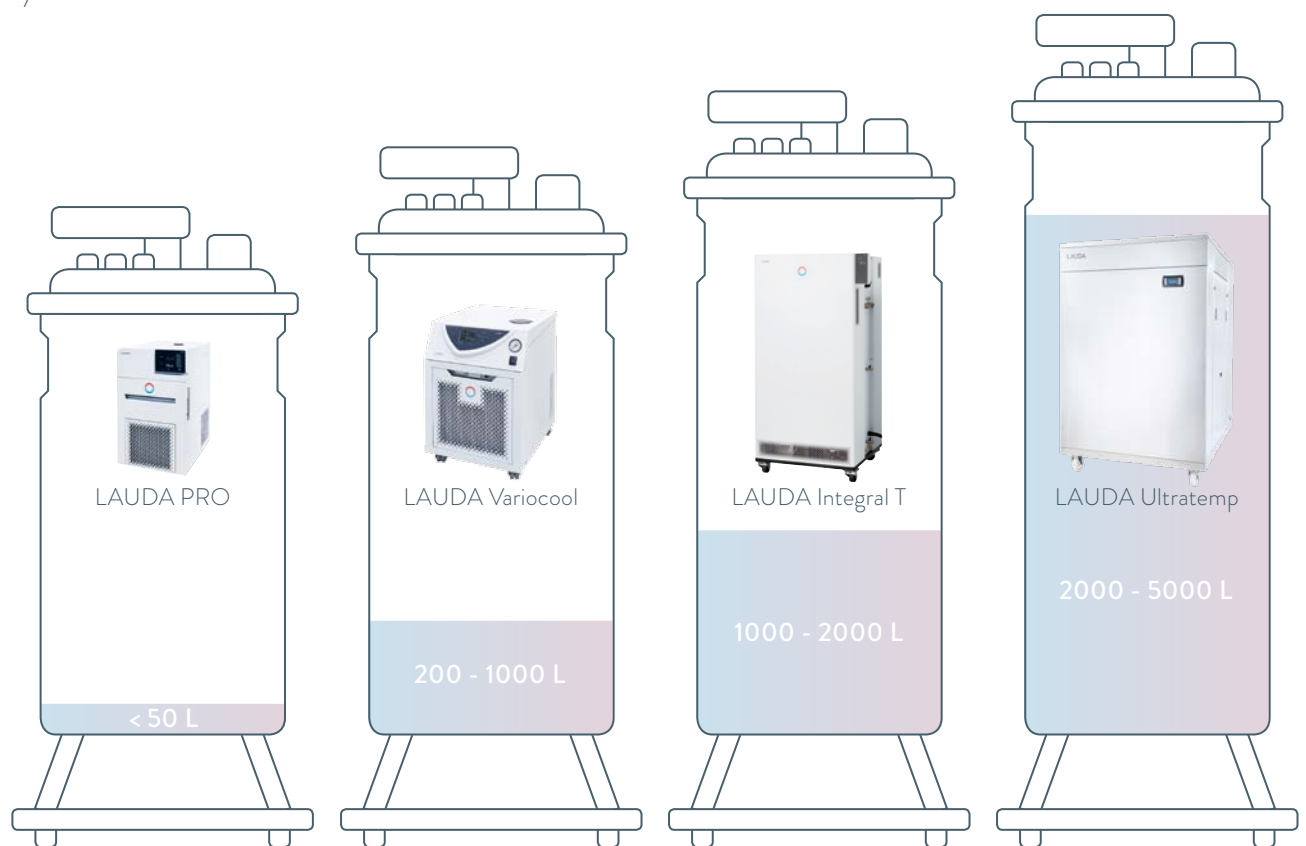
- Connection option for external Pt100 temperature sensor
- Analog signal (4 to 20 mA): Set point value, external temperature
- Digital signals: Signal device on/off, status on/off, level warning for heat transfer liquid
- Connection for external solenoid valve (reverse flow protection)
- Integrated Ethernet interface with Modbus TCP/IP protocol

Areas of application

The new Ultratemp process thermostats round off the LAUDA portfolio in the upper performance range of biotech and industrial applications.

The Ultratemp portfolio includes three models of constant temperature equipment with high heating and cooling capacities, especially for bioreactor applications with reactor volumes from 2000 to 5000 liters. For volumes over 5000 liters, LAUDA Plant Engineering offers even more powerful, customer-specific temperature control systems.

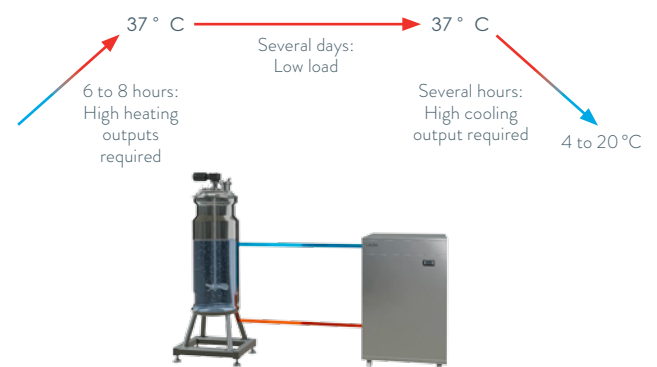
LAUDA offers temperature control solutions in all the requisite performance classes for applications in the biopharmaceutical industry and for biotechnical processes, e.g. in the novel food sector. Microcool circulation chillers and PRO process thermostats are available for laboratory reactors. The temperature of reactors with 200 to 2000 liters can be controlled with process thermostats from the Variocool and Integral line. The new Ultratemp line means that LAUDA can now offer solutions for reactors and mixers with a volume of up to 5000 liters.



LAUDA temperature control solutions for applications with reactor volumes of up to 5000 liters

Typical biopharm application

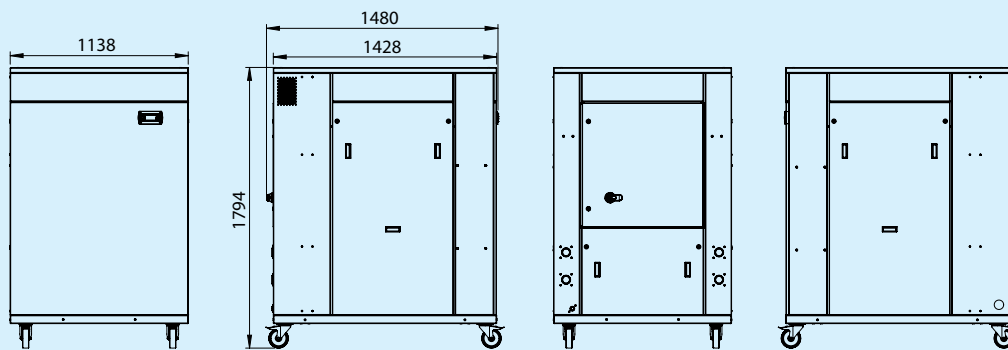
High heating outputs are required for several hours (6 to 8 hrs) at the beginning of the process, in order to reach 37°C. The application is usually kept at a constant temperature of 37°C for a long period (up to several days), whereby only low heating outputs are necessary to maintain this temperature. High cooling outputs are required for several hours at the end of the process to cool down from 37 to 4 - 20°C. The LAUDA devices are optimized for this purpose and designed to save energy.



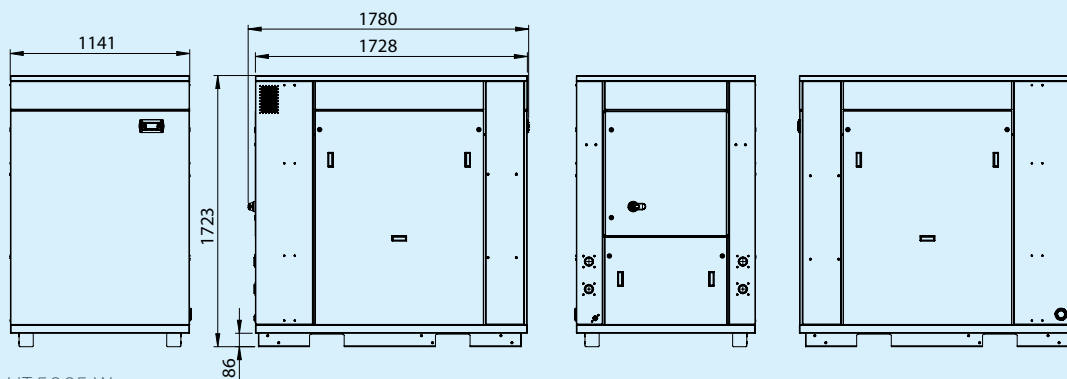
LAUDA Ultratemp process thermostats

Technical data

Device type	Working temperature range °C	Temperature stability K	Ambient temperature °C	Cooling of the refrigerating machine	Protection level	Heating output kW	Cooling output at 20 °C kW	Pressure pump, nominal bar	Flow rate, nominal L/min	Max. filling volume L	Mains voltage	Part Number
LAUDA Ultratemp												
UT 2505 W	-5...60	±0.5	-15...50	Water	IP 54	35	25.8	3.0	90	100	400 V; 3/PE; 50 Hz	L004022
UT 2505 W	-5...60	±0.5	-15...50	Water	IP 54	26.5 @ 50 Hz 35 @ 60 Hz	25.8 @ 50 Hz 30.3 @ 60 Hz	3.0 @ 50 Hz 4.4 @ 60 Hz	90	100	400 V; 3/PE; 50 Hz & 460 V; 3/PE; 60 Hz	L004023
UT 3505 W	-5...60	±0.5	-15...50	Water	IP 54	35	35.3	3.0	90	100	400 V; 3/PE; 50 Hz	L004024
UT 3505 W	-5...60	±0.5	-15...50	Water	IP 54	26.5 @ 50 Hz 35 @ 60 Hz	35.3 @ 50 Hz 41.1 @ 60 Hz	3.0 @ 50 Hz 4.4 @ 60 Hz	90	100	400 V; 3/PE; 50 Hz & 460 V; 3/PE; 60 Hz	L004025
UT 5005 W	-5...60	±0.5	-15...50	Water	IP 54	50	46.7	3.5	180	100	400 V; 3/PE; 50 Hz	L004026
UT 5005 W	-5...60	±0.5	-15...50	Water	IP 54	37.8 @ 50 Hz 50 @ 60 Hz	46.7 @ 50 Hz 55.6 @ 60 Hz	3.5 @ 50 Hz 5.7 @ 60 Hz	180	100	400 V; 3/PE; 50 Hz & 460 V; 3/PE; 60 Hz	L004027



UT 2505 / 3505 W



UT 5005 W

Accessories



Pressure reducing valve

Sets the maximum pressure in the temperature control circuit for pressure sensitive applications

Part Number A000035



Water solenoid valve kit

Prevents liquid from backing up within the temperature control circuit when pump is stopped. Includes a non-return valve and a solenoid valve

Part Number A000014



Installation kit

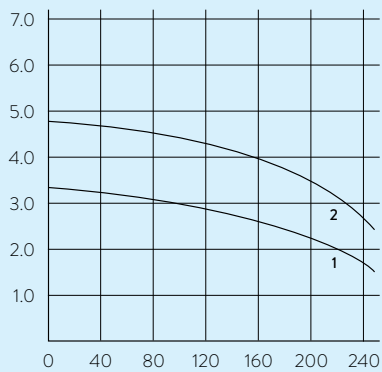
Can be used as temperature control hoses and cooling water hoses. Contains two hoses and two connection sets

2 x 10 m Part Number A000003
2 x 20 m Part Number A000006

LAUDA Ultratemp

PUMP CHARACTERISTICS 50 Hz Liquid: Water

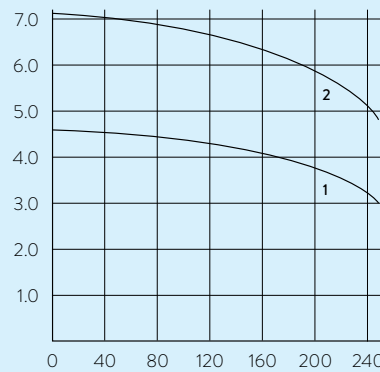
Pressure bar



2 UT 5005 W
1 UT 2505 W, UT 3505 W

PUMP CHARACTERISTICS 60 Hz Liquid: Water

Pressure bar



2 UT 5005 W
1 UT 2505 W, UT 3505 W

