

Heating and cooling thermostats for cost-effective thermostating in the laboratory at temperatures from **-20 up to 100 °C**



Heating and cooling thermostats for economical thermostating in the laboratory at temperatures from -20 up to 100 °C

Thermostating in all its facets



Shaking thermostat
A 120 S during a
bacteriological test



Thermostating of
samples for serologic
analysis



Control head



Use of the A 103 for
training purposes



The A 103 for straight-
forward quality testing
tasks

The LAUDA Class A provides all the functions you need when it comes to simple thermostating applications. The powerful circulation pump with rotatable pump casing ensures ideal bath circulation and even thermostating of samples, even with external consumers. The electronically-controlled heating guarantees a high temperature stability of ± 0.05 K. Cooling thermostats enable working under ambient temperature without the need for additional cooling. The Class A is also available as a shaking thermostat for set-ups which also need optimum mixing of the sample, such as in bacteria culture.

Fields of application: straightforward thermostating tasks in the chemical and pharmaceutical industries, medicine, quality assurance and analytics.

Reliable preparation of samples in the laboratory

The high-quality processing quality of Class A is essential for reliable thermostating in sensitive areas such as medical serology or for sample preparation for chemical/pharmaceutical analysis. Class A is also used in quality control to test the capacity of rechargeable batteries, for example.

Under continuous observation

The visual control of the samples is desired when critical thermostating tasks are being carried out. The LAUDA heating thermostats with transparent baths are particularly suited to these tasks, increasing process safety and their success rate.

Easy to use

The set values are very safe and simple to set via a turning knob on the LAUDA Class A devices. The actual value is displayed on the glass control thermometer. Easily-visible control lights indicating heating mode or a malfunction increase operational safety.

Universal use

Cooling of the thermostating bath is also possible if required: choose between the LAUDA through-flow cooler and the use of cold water and the integrated cooling coil, which comes as standard.

You cannot be too careful

The LAUDA Class A comes fitted with an individually-adjustable overtemperature protection as standard, and is suitable for professional, maintenance-free continuous operation with non-flammable liquids (safety class I, NFL).

The LAUDA Class A: the economical option for getting into the high-quality world of LAUDA thermostats. For straightforward thermostating tasks up to 100 °C over a wide range of applications.

Simply universal: The A 100 immersion thermostat

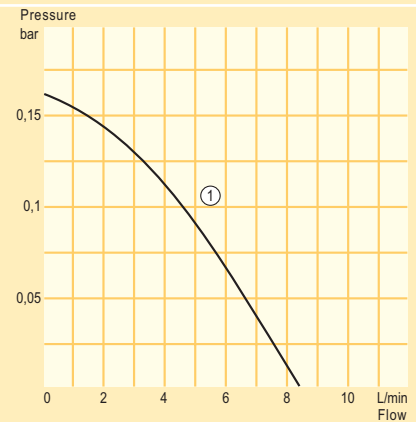
Perfectly adequate for many thermostating tasks: our bestseller, the A 100 immersion thermostat. It can be attached to all baths with a wall thickness of up to 25 mm without any problems by using a screw clamp delivered as standard. And it can be expanded to become a full thermostating system by means of the special accessory kit that permits external thermostating and connection to a cooling water circuit.



Immersion thermostat A 100

Pump characteristic measured with water

- ① A 100 · A 103
- A 103 T · A 112 T
- A 120 T · A 120 S



Standard accessories

Reference thermometer 0/100 °C
Screw clamp

Recommended accessories

Baths (page 23)
Cooling coil · accessory kit
For further accessories please request the comprehensive LAUDA accessories brochure.



A 100

Technical features

Working temperature range	°C	25...100
Temperature stability	±K	0.05
Heater power 230 V/115 V	kW	1.5/1.0
Discharge pressure max.	bar	0.15
Bath circulation	L/min	14
Bath depth	mm	160 min.
Usable immersion depth	mm	100 min.
Cat. No. 230 V; 50/60 Hz		LCE 0225
Cat. No. 115 V; 60 Hz		LCE 4225

Immersion thermostats, thermostatic baths/circulators and shaking thermostat

**The compact units for biotechnology and medicine:
LAUDA heating thermostats and shaking thermostat**

This small but high-quality family of compact thermostats was especially designed for the requirements of biotechnology and the medical laboratory. The heating thermostats are either available with a small bath made of stainless steel or with transparent baths. Transparent baths made of polycarbonate allow constant observation of the sample in the bath itself. As usual only with LAUDA the cooling coil and the pump connectors are al-

ready installed on the bath bridge. The large A 111 stainless steel bath thermostat provides plenty of space for direct thermostating in the bath. The shaking thermostat A 120 S provides reliable linear shaking movements which can be set very precisely to a desired frequency (0 to 200 strokes per minute) and length of stroke (0 to 40 mm).

Standard accessories

Reference thermometer 0/100 °C
Closing plugs

Recommended accessories

Racks - trays (for A 120 S)
For further accessories please request the comprehensive LAUDA accessories brochure.



Heating thermostat A 111



Technical features		A 103	A 111	A 106 T	A 112 T	A 120 T	A 120 S
Working temperature range	°C	30...100	25...100	25...100	25...100	25...100	25...100
Temperature stability	±K	0.05	0.05	0.05	0.05	0.05	0.05
Heater power 230 V/115 V	kW	1.5/1.0	1.5/1.0	1.5/1.0	1.5/1.0	1.5/1.0	1.5/1.0
Discharge pressure max.	bar	0.15	0.15	0.15	0.15	0.15	0.15
Pump flow max.	L/min	8	8	8	8	8	8
Bath volume	L	2.5...3.5	9...12	5...7	9...13	14...20	14...20
Bath opening/depth	mm	135x105/150*	300x190/150*	130x285/160*	300x175/160	300x350/160	280x270/160
Cat. No. 230 V; 50/60 Hz		LCB 0703	LCB 0722	LCM 0095	LCD 0270	LCD 0271	LCS 0081
Cat. No. 115 V; 60 Hz		LCB 4703	LCB 4722	LCM 4095	LCD 4270	LCD 4271	-

* Dimensions of bath opening are measured at the top and are slightly reduced downwards.

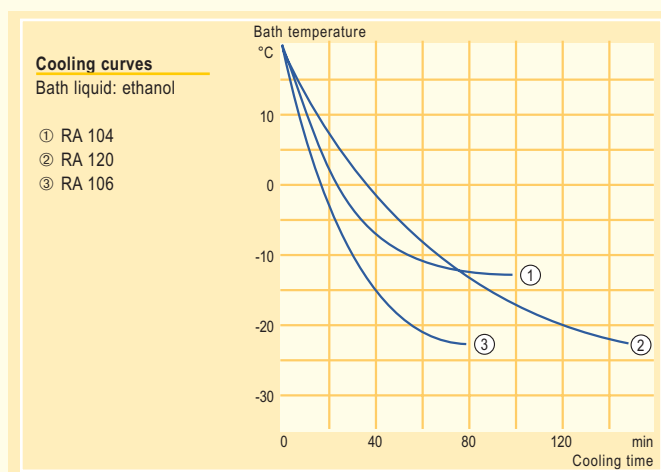
Cooling thermostats for economical thermostating from -20 up to 100 °C ❄️

Straightforward thermostating tasks made easy: the Class A cooling thermostats with active cooling

The cooling thermostats of the Class A are suitable for a wide range of applications requiring work below ambient temperature. The particularly economical RA 104 cooling thermostat with its extremely small space requirements is fully equipped, and is ideal for straightforward cooling tasks in the bath and in external consumers. The RA 106 offers further thermostating options down to -20 °C. The very large bath of the RA 120 is particularly suitable for direct thermostating.



Cooling thermostat RA 104



Standard accessories

Reference thermometer -30/120 °C · cover plate (not RA 120) · closing plug

Recommended accessories

Tubes · platforms

For further accessories please request the comprehensive LAUDA accessories brochure.



Technical features		RA 104	RA 106	RA 120
Working temperature range*	°C	-10...100	-20...100	-20...100
Temperature stability	±K	0.05	0.05	0.05
Heating power 230 V/115 V	kW	1.5/1.0	1.5/1.0	1.5/1.0
Cooling output at 20 °C	kW	0.18	0.20	0.35
Discharge pressure max.	bar	0.15	0.15	0.15
Pump flow max.	L/min	8	8	8
Bath volume	L	3...4.5	4...6	14...20
Bath opening/depth	mm	130x105/160	150x130/160	300x350/160
Cat. No. 230 V; 50 Hz		LCK 0904 ^①	LCK 0905 ^①	LCK 1906
Cat. No. 230 V; 60 Hz		LCK 0904 ^①	LCK 0905 ^①	LCK 2906
Cat. No. 115 V; 60 Hz		LCK 4904	LCK 4905	LCK 4906

* Working temperature range is equal to ACC range.

^① 50/60 Hz

This page offers you a selection of important accessories for the thermostats of the LAUDA Class A. Please see the LAUDA accessories brochure for further accessories.



Suitable baths for A 100 see page 23



Accessory set
for retrofitting on immersion thermostat A 100

consisting of:
pump circulation set for external thermostating · cooling coil with 10 mm nipples · stand rod · 2 pump reducer nipples 4 mm

Cat.-No.:	Designation
LCZ 0639	Accessory set
UD 455	Cooling coil
suitable for	A 100



Racks
Polycarbonate up to 100 °C

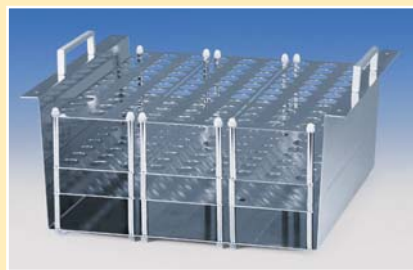
Cat.-No.:	Designation	Qty. tubes	Ø mm	Immersion/mm
UE 023	RK 75	30	13...14	40
UE 022	RK 100	20	14...18	70
UE 020	RK 160	20	14...18	100
suitable for	1 x RA 104 2 x A 106 T			



Racks
Stainless steel up to 100 °C

Racks with polymer handles for comfortable use in bath thermostats · suitable for all LAUDA bath liquids

Cat.-No.:	Designation	Qty. tubes	Ø mm	Immersion/mm
UE 033	RN 13/1	15	10...13	80
UE 034	RN 18/3	11	14...18	80
UE 035	RN 18/4	11	14...18	110
UE 036	RN 30/1	4	24...30	110
suitable for	1 x A 103			



Trays for A 120 S
Shaking thermostat A 120 S

Tray is placed in shaking frame of thermostat and locks in to secure it · flasks are secured with antifloat clips

Cat.-No.:	Qty. flasks	ml	Immersion/mm	Ø mm
UG 097	30	25	–	–
UG 078	20	50	–	–
UG 079	14	100	–	–
UG 080	9	200, 250, 300	–	–
UG 081	5	500	–	–
UG 083	99*	–	80	14...18
UG 082	99*	–	110	14...18

* Tubes

| Request your free copy of the comprehensive LAUDA accessories brochure. |