

LAUDA

COOLING THERMOSTATS

LAUDA



Specific application examples

- Sample preparation in chemistry and pharmacy
- Functional testing of electronic components
- Test of slide bearings
- Beer forcing test
- Valve testing
- Stress test
- Notch bending test
- Expansion testing
- Brookfield test
- Semi-conductor coating



LAUDA Alpha

Affordable cooling thermostats for maintaining temperatures from -25 to 100°C in the lab



The cost-efficient choice for high-quality LAUDA thermostats

LAUDA Alpha offers reliable technology for temperature ranges from -25 to 100°C . This line of devices is suitable for internal and external temperature control thermostating with non-flammable liquids (water and water/glycol). The thermostats are the perfect solution for most basic temperature control applications in the lab. Optimized down to the most essential functions, this affordable product line will win you over with its reliability and user-friendliness.



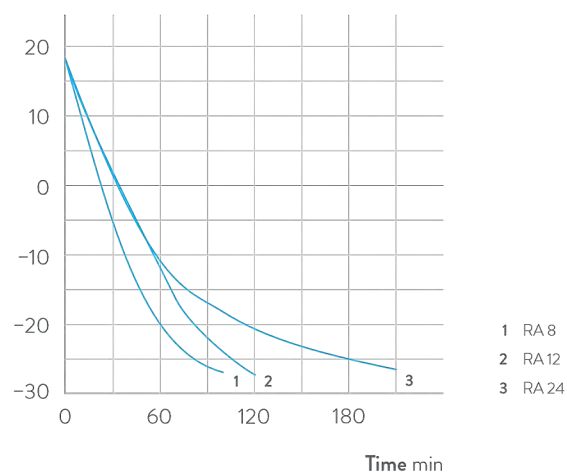
Cost savings through automatic compressor control: Cooling capacity is only provided when it is needed



Easy cleaning of the cooling air inlet enabled by simple removal of front cover without tools

COOLING PERFORMANCE Heat transfer liquid: Ethanol, bath closed

Bath temperature $^{\circ}\text{C}$



Important functions

- Stainless steel bath vessels
- Drain connection at the rear

Included accessories

Pump circulation set, bath cover, pump link for pump connections

Further accessories

Racks, tubing

All technical data and power supply variants can be found in the »Technical data« section.

More at www.lauda.de/1736



LAUDA Alpha

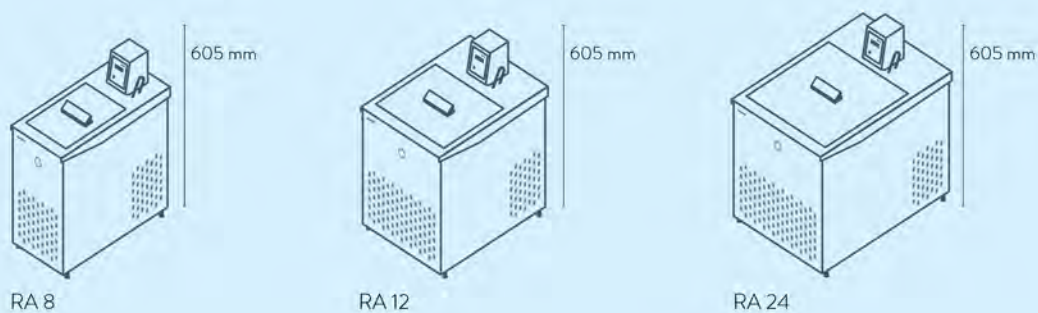
The cooling thermostats RA 8, RA 12 and RA 24, including standard-issue bath covers and pump connections, facilitate cooling across the entire temperature range from -25 to 100°C . Automatic compressor control extends the service life of the compressor and offers savings on operation costs.



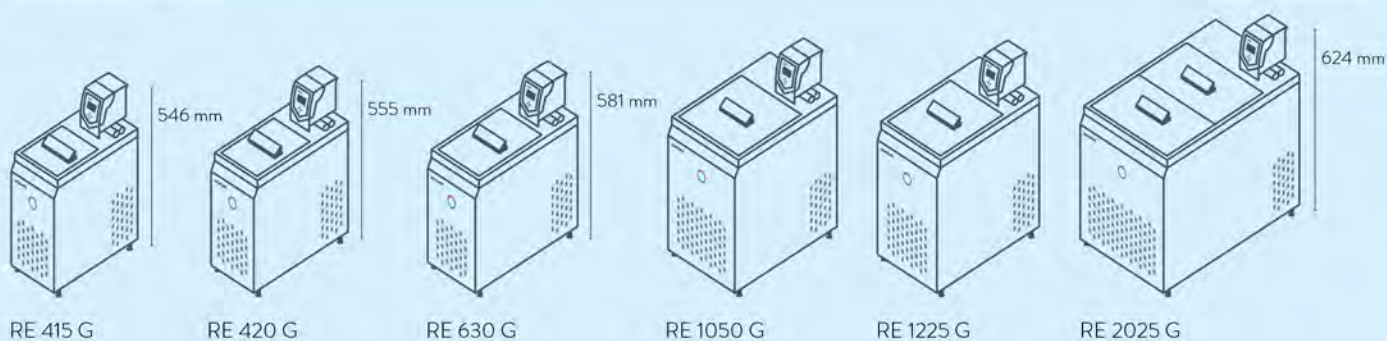
LAUDA Cooling thermostats

Device type overview

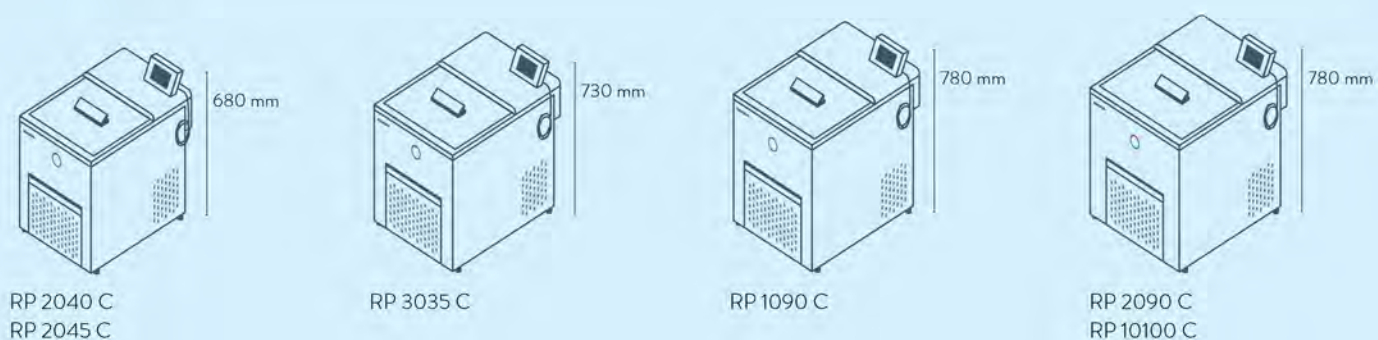
LAUDA Alpha / Page 56



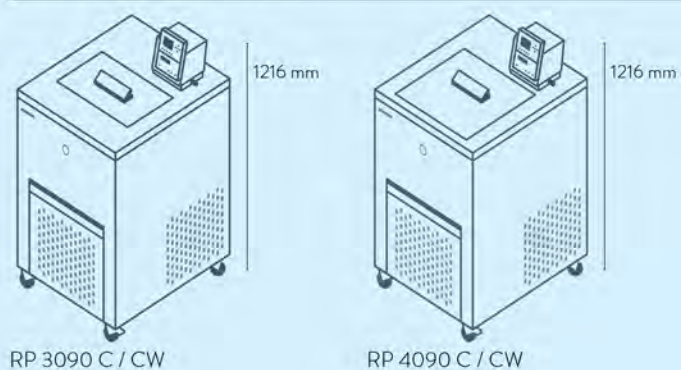
LAUDA ECO / Page 58



LAUDA PRO / Page 60



LAUDA Proline Kryomats / Page 62



LAUDA Cooling thermostats

Interfaces

	Pt 100 (1)	Pt 100 (2)	USB	Ethernet	RS 232 / 485	Analog	Namur contact	Sub-D contact	Profibus	EtherCat M8	EtherCat RJ 45	Number of module slots, large	Number of module slots, small
LAUDA Alpha / Page 56	-	-	-	-	-	-	-	-	-	-	-	-	-
LAUDA ECO / Page 58	Z	-	S	Z	Z	Z	Z	Z	Z	Z	Z	1	1
LAUDA PRO / Page 60	S	-	S	S	Z	Z	Z	Z	Z	Z	Z	1	-
LAUDA Proline Kryomat / Page 62	S	-	-	Z	S	Z	Z	Z	Z	Z	Z	2	-

S = Series standard
Z = Available as an accessory



LRZ 912
Analog module



LRZ 913
RS 232/485
interface



LRZ 914
Contact module with single input
and single output (NAMUR)



LRZ 915
Contact module with
3 inputs and 3 outputs



LRZ 917
Profibus module



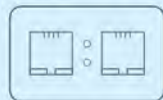
LRZ 918
Pt100/Li bus module,
small cover



LRZ 921
Ethernet module



LRZ 922
EtherCAT module
with M8 connection



LRZ 923
EtherCAT module
with RJ45 connection



LRZ 925
External Pt100/LiBus-
module, large cover

LAUDA Cooling thermostats

Function overview

Operating element	Alpha	ECO S	ECO G	PRO Base	PRO Command Touch	Proline Kryomats
Display	7-Segment	LCD mono	TFT	OLED	TFT	LCD mono
Mode of operation	3-button	3-button softkey	Cursor softkey	Cursor softkey	Multi-touch	Cursor softkey
Removable control	-	-	-	✓	✓	✓
User management	-	-	-	-	✓	-
Data logging, export to USB stick	-	-	-	-	✓	-
1-point calibration	✓	✓	✓	✓	✓	✓
2-point calibration	-	-	-	✓	✓	-
Programmer, programs/segments	-	1 / 20	5 / 150	1 / 20	100 / 5000	5 / 150
Programmer, tolerance range function	-	✓	✓	✓	✓	✓
Ramp function	-	-	-	-	✓	✓
Timer function	-	-	-	-	✓	✓
Countdown function	✓	-	-	-	✓	✓
Graphic temperature profile display	-	-	✓	-	✓	✓
Adjustable bypass	-	-	-	-	-	✓
Level indicator (digital)	-	-	-	✓	✓	✓
Standby timer	-	✓	✓	✓	✓	✓
Low-level alarm	✓	✓	✓	✓	✓	✓
Drain tap	-	✓	✓	✓	✓	✓
Drain screw	✓	-	-	-	-	-

LAUDA Cooling thermostats

Technical data according to DIN 12876 standard

Device type	Working temperature range °C	Temperature stability ±K	Safety fittings	Heater power max. kW	Cooling output kW														Pump type	Pump pressure max. bar
					20 °C	10 °C	0 °C	-10 °C	-20 °C	-25 °C	-30 °C	-40 °C	-50 °C	-60 °C	-70 °C	-80 °C	-90 °C	-100 °C		

LAUDA Alpha / Page 56

RA 8	-25 ... 100	0.05	I, NFL	1.5	0.23	-	0.16	-	0.08	-	-	-	-	-	-	-	-	-	D	0.2
RA 12	-25 ... 100	0.05	I, NFL	1.5	0.33	-	0.26	-	0.08	-	-	-	-	-	-	-	-	-	D	0.2
RA 24	-25 ... 100	0.05	I, NFL	1.5	0.43	-	0.33	-	0.08	-	-	-	-	-	-	-	-	-	D	0.2

LAUDA ECO / Page 58

RE 415 S	-15 ... 200	0.02	III, FL	2.0	0.18 ¹	-	0.12 ¹	-	-	-	-	-	-	-	-	-	-	-	V	0.6
RE 420 S	-20 ... 200	0.02	III, FL	2.0	0.20 ¹	-	0.15 ¹	-	0.03 ¹	-	-	-	-	-	-	-	-	-	V	0.6
RE 630 S	-30 ... 200	0.02	III, FL	2.0	0.30 ¹	-	0.24 ¹	-	0.10 ¹	-	0.02 ¹	-	-	-	-	-	-	-	V	0.6
RE 1050 S	-50 ... 200	0.02	III, FL	2.0	0.70 ¹	-	0.60 ¹	-	0.35 ¹	-	0.19 ¹	0.10 ¹	0.02 ¹	-	-	-	-	-	V	0.6
RE 1225 S	-25 ... 200	0.02	III, FL	2.0	0.30 ¹	-	0.24 ¹	-	0.09 ¹	0.04 ¹	-	-	-	-	-	-	-	-	V	0.6
RE 2025 S	-25 ... 200	0.02	III, FL	2.0	0.30 ¹	-	0.23 ¹	-	0.06 ¹	0.03 ¹	-	-	-	-	-	-	-	-	V	0.6
RE 415 G	-15 ... 200	0.02	III, FL	2.6	0.18 ¹	-	0.12 ¹	-	-	-	-	-	-	-	-	-	-	-	V	0.6
RE 420 G	-20 ... 200	0.02	III, FL	2.6	0.20 ¹	-	0.15 ¹	-	0.03 ¹	-	-	-	-	-	-	-	-	-	V	0.6
RE 630 G	-30 ... 200	0.02	III, FL	2.6	0.30 ¹	-	0.24 ¹	-	0.10 ¹	-	0.02 ¹	-	-	-	-	-	-	-	V	0.6
RE 1050 G	-50 ... 200	0.02	III, FL	2.6	0.70 ¹	-	0.60 ¹	-	0.35 ¹	-	0.19 ¹	0.10 ¹	0.02 ¹	-	-	-	-	-	V	0.6
RE 1225 G	-25 ... 200	0.02	III, FL	2.6	0.30 ¹	-	0.24 ¹	-	0.09 ¹	0.04 ¹	-	-	-	-	-	-	-	-	V	0.6
RE 2025 G	-25 ... 200	0.02	III, FL	2.6	0.30 ¹	-	0.23 ¹	-	0.06 ¹	0.03 ¹	-	-	-	-	-	-	-	-	V	0.6

¹Pump output step 2

Pump flow max. pressure L/min	Pump connection thread mm	Nipples Øe	Bath volume min. L	Bath volume max. L	Bath opening (W × D) mm	Bath depth mm	Usable depth mm	Height top of bath mm	Dimensions (W × D × H) mm	Weight kg	Power supply V; Hz	Loading max. kW	Cat. No.	Device type
15.0	N/A	13	5.0	7.5	165×177	160	140	450	235×500×605	31.0	230 V; 50 Hz	1.8	L000638	RA 8
15.0	N/A	13	9.5	14.5	300×203	160	140	450	365×500×605	37.0	230 V; 50 Hz	1.8	L000639	RA 12
15.0	N/A	13	14.0	22.0	350×277	160	140	450	415×605×605	43.0	230 V; 50 Hz	1.8	L000640	RA 24
22.0	N/A	13	3.3	4.0	130×105	160	140	365	180×350×546	19.6	230 V; 50 Hz	2.2	L001249	RE 415 S
22.0	N/A	13	3.3	4.0	130×105	160	140	374	180×396×555	21.6	230 V; 50 Hz	2.2	L001333	RE 420 S
22.0	N/A	13	4.6	5.7	150×130	160	140	400	200×430×581	27.2	230 V; 50 Hz	2.3	L001335	RE 630 S
22.0	N/A	13	8.0	10.0	200×200	160	140	443	280×440×624	34.6	230 V; 50 Hz	2.5	L001336	RE 1050 S
22.0	N/A	13	9.3	12.0	200×200	200	180	443	250×435×624	30.0	230 V; 50 Hz	2.3	L001337	RE 1225 S
22.0	N/A	13	14.0	20.0	300×350	160	140	443	350×570×624	37.0	230 V; 50 Hz	2.3	L001338	RE 2025 S
22.0	M16×1	13	3.3	4.0	130×105	160	140	365	180×350×546	20.0	230 V; 50 Hz	2.8	L001256	RE 415 G
22.0	M16×1	13	3.3	4.0	130×105	160	140	374	180×396×555	22.0	230 V; 50 Hz	2.8	L001339	RE 420 G
22.0	M16×1	13	4.6	5.7	150×130	160	140	400	200×430×581	27.6	230 V; 50 Hz	2.9	L001341	RE 630 G
22.0	M16×1	13	8.0	10.0	200×200	160	140	443	280×440×624	35.0	230 V; 50 Hz	3.1	L001342	RE 1050 G
22.0	M16×1	13	9.3	12.0	200×200	200	180	443	250×435×624	30.4	230 V; 50 Hz	2.9	L001343	RE 1225 G
22.0	M16×1	13	14.0	20.0	300×350	160	140	443	350×570×624	37.4	230 V; 50 Hz	2.9	L001344	RE 2025 G

LAUDA Cooling thermostats

Power supply variants

Device type	Power supply V; Hz	Heater power max. kW	Loading max. kW	Plug code*	Cat. No.	Device type	Power supply V; Hz	Heater power max. kW	Loading max. kW	Plug code*	Cat. No.
LAUDA Alpha / Page 56											
RA 8	100 V; 50/60 Hz	1.0	1.3	14	L000653	RA 24	100 V; 50/60 Hz	1.0	1.3	14	L000655
RA 8	115 V; 60 Hz	1.2	1.5	14	L000650	RA 24	115 V; 60 Hz	1.2	1.5	14	L000652
RA 8	220 V; 60 Hz	1.4	1.8	17	L000647	RA 24	220 V; 60 Hz	1.4	1.8	17	L000649
RA 12	100 V; 50/60 Hz	1.0	1.3	14	L000654						
RA 12	115 V; 60 Hz	1.2	1.5	14	L000651						
RA 12	220 V; 60 Hz	1.4	1.8	17	L000648						
LAUDA ECO / Page 58											
RE 415 S	115 V; 60 Hz	1.3	1.4	14	L001433	RE 1050 S	100 V; 50/60 Hz	1.0	1.5	14	L001465
RE 415 S	220 V; 60 Hz	1.8	2.1	3	L001405	RE 1050 S	115 V; 60 Hz	1.3	1.4	14	L001437
RE 415 S	220 V; 60 Hz	1.8	2.1	2	L002073	RE 1050 S	220 V; 60 Hz	1.8	2.4	3	L001409
RE 415 G	115 V; 60 Hz	1.3	1.4	14	L001440	RE 1050 S	220 V; 60 Hz	1.8	2.4	2	L002077
RE 415 G	220 V; 60 Hz	2.4	2.6	3	L001412	RE 1050 G	100 V; 50/60 Hz	1.0	1.5	14	L001472
RE 415 G	220 V; 60 Hz	2.4	2.6	2	L002080	RE 1050 G	115 V; 60 Hz	1.3	1.4	14	L001444
RE 420 S	100 V; 50/60 Hz	1.0	1.2	14	L001462	RE 1050 G	220 V; 60 Hz	2.4	2.9	3	L001416
RE 420 S	115 V; 60 Hz	1.3	1.4	14	L001434	RE 1225 S	100 V; 50/60 Hz	1.0	1.3	14	L001466
RE 420 S	220 V; 60 Hz	1.8	2.1	3	L001406	RE 1225 S	115 V; 60 Hz	1.3	1.4	14	L001438
RE 420 S	220 V; 60 Hz	1.8	2.1	2	L002074	RE 1225 S	220 V; 60 Hz	1.8	2.1	2	L002078
RE 420 G	100 V; 50/60 Hz	1.0	1.2	14	L001469	RE 1225 S	220 V; 60 Hz	1.8	2.1	3	L001410
RE 420 G	115 V; 60 Hz	1.3	1.4	14	L001441	RE 1225 G	100 V; 50/60 Hz	1.0	1.3	14	L001473
RE 420 G	220 V; 60 Hz	2.4	2.6	3	L001413	RE 1225 G	115 V; 60 Hz	1.3	1.4	14	L001445
RE 630 S	100 V; 50/60 Hz	1.0	1.3	14	L001464	RE 1225 G	220 V; 60 Hz	2.4	2.7	3	L001417
RE 630 S	115 V; 60 Hz	1.3	1.4	14	L001436	RE 2025 S	100 V; 50/60 Hz	1.0	1.3	14	L001467
RE 630 S	220 V; 60 Hz	1.8	2.1	3	L001408	RE 2025 S	115 V; 60 Hz	1.3	1.4	14	L001439
RE 630 S	220 V; 60 Hz	1.8	2.1	2	L002076	RE 2025 S	220 V; 60 Hz	1.8	2.1	2	L002079
RE 630 G	100 V; 50/60 Hz	1.0	1.3	14	L001471	RE 2025 S	220 V; 60 Hz	1.8	2.1	3	L001411
RE 630 G	115 V; 60 Hz	1.3	1.4	14	L001443	RE 2025 G	100 V; 50/60 Hz	1.0	1.3	14	L001474
RE 630 G	220 V; 60 Hz	2.4	2.7	2	L002083	RE 2025 G	115 V; 60 Hz	1.3	1.4	14	L001446
RE 630 G	220 V; 60 Hz	2.4	2.7	3	L001415	RE 2025 G	220 V; 60 Hz	2.4	2.7	3	L001418

*All data for the plug codes can be found on page 150

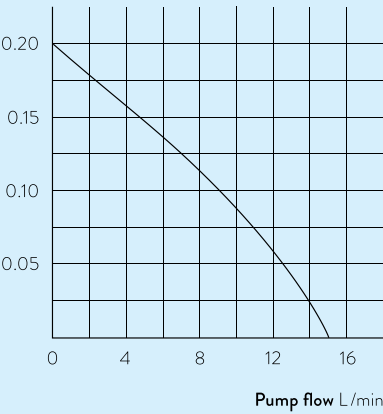
LAUDA Cooling thermostats

More characteristics

LAUDA Alpha / Page 56

PUMP CHARACTERISTIC Water

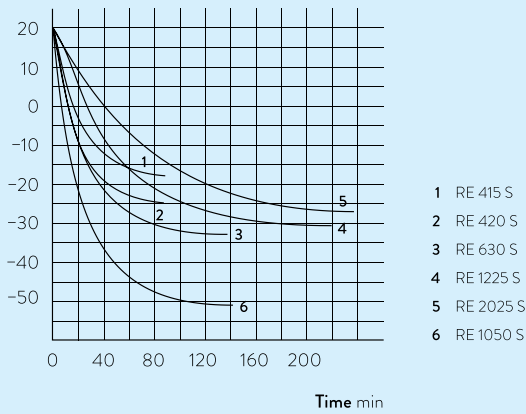
Pressure bar



LAUDA ECO / Page 58

COOLING PERFORMANCE According to DIN 12876

Bath temperature °C



LAUDA Proline Kryomats / Page 62

COOLING PERFORMANCE According to DIN 12876

Bath temperature °C

