

LAUDA Variocool

Process thermostats from -20 to 80°C
with cooling capacities up to 10 kW and powerful pumps

-20°C  80°C

Powerful and flexible in use

A comprehensive performance spectrum enables the LAUDA Variocool to deal with sophisticated process temperature control in the moderate temperature range. Equipment incorporating various pumps and individual expansion with interface modules, including the option of external temperature control, allow optimized adaptation to changing requirements in the process environment.



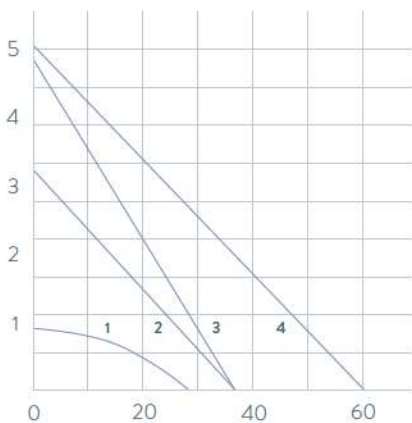
Malfunction contact included as standard. A Pt100 module for external temperature control and interfaces for analog and digital communication can also be added.



Analog pressure indication for operational control, can be adjusted via the bypass on the back of the device

PUMP CHARACTERISTIC Water

Pressure bar



- 1 0,9 bar, 28 L/min
- 2 3,2 bar, 37 L/min
- 3 4,8 bar, 37 L/min
- 4 5,0 bar, 60 L/min

Pump flow L/min

Important functions

- Adjustable bypass for pressure limitation
- Filling opening at the top, drain tap at the rear
- Integrated programmer with 150 segments, can be divided into 5 programs
- Electronic level indicator and low-level alarm
- SmartCool system for digital, energy-saving cooling control, including automatic compressor control

Included accessories

Nipples, screw caps

Further accessories

Hoses, interface modules

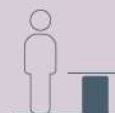
All technical data and power supply variants can be found in the [Technical data](#) section.

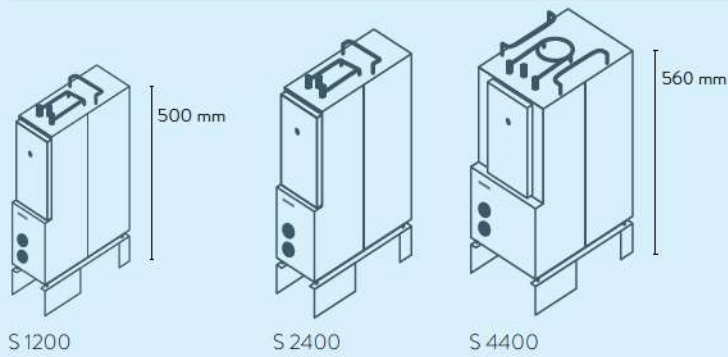
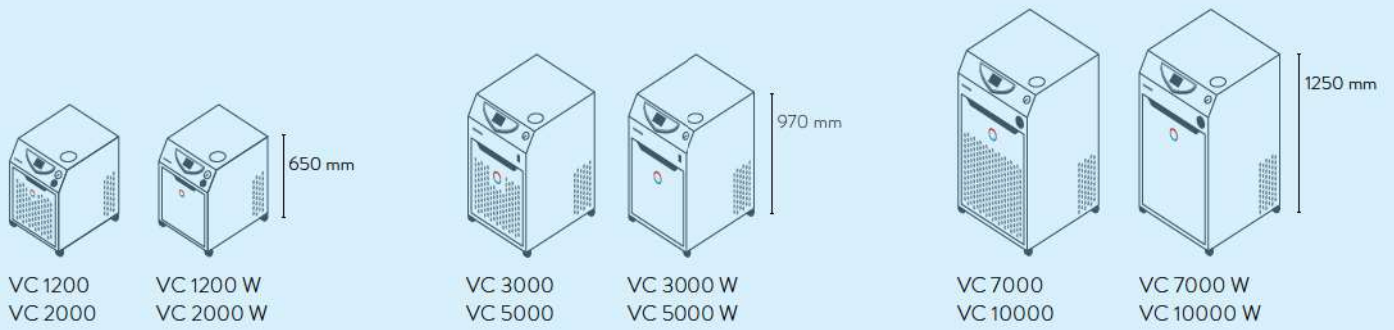
More at www.lauda.de/1756



LAUDA Variocool

All models are available in air and water-cooled versions (W) and fitted with moveable as well as fixable castors. High-performance process thermostats in a tower design starting from the VC 5000 model are available with sound insulation.





LAUDA Circulation and process thermostats

Interfaces

	Pt 100 (1)	Pt 100 (2)	USB	Ethernet	RS 232 / 485	Analog	Namur contact	D-Sub contact	PROFIBUS	EtherCAT M8	EtherCAT RJ 45	Malfunction contact	Number of module slots, large	Number of module slots, small	RS232/485 module Advanced	Contact module NAMUR Advanced	Contact module D-Sub Advanced	Profibus module Advanced	Ethernet module Advanced	Profinet module Advanced	CAN module Advanced
LAUDA LOOP / Page 84	-	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LAUDA PRO / Page 86	S	-	S	S	Z	Z	Z	Z	Z	Z	Z	-	1	-	Z	Z	Z	Z	-	Z	Z
LAUDA Integral T / Page 88	S	Z	S	S	Z	Z	Z	Z	Z	Z	Z	S	2	-	Z	Z	Z	Z	S	Z	Z
LAUDA Integral XT / Page 90	S	Z	S	S	Z	Z	Z	Z	Z	Z	Z	S	2	-	Z	Z	Z	Z	S	Z	Z
LAUDA Integral P / Page 92	S	Z	S	S	Z	Z	Z	Z	Z	Z	Z	S	2	-	Z	Z	Z	Z	S	Z	Z
LAUDA Variocool / Page 94	Z	-	S	Z	Z	Z	Z	Z	Z	Z	Z	S	1	1	Z	Z	Z	Z	Z	Z	Z

S = Series standard

Z = Available as an accessory

LAUDA interfaces



LRZ 912
Analog module



LRZ 913
RS 232/485 interface



LRZ 914
Contact module, 1 input, 1 output (NAMUR)



LRZ 915
Contact module, 3 inputs, 3 outputs



LRZ 917
Profibus module



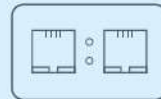
LRZ 918
Pt100/LiBus-Modul, small cover



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 interfaces Advanced* (Modules available as accessories from Q3 / 2022)



LRZ 926
RS232/485 module Advanced, D-Sub 9-pin



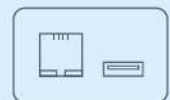
LRZ 927
Contact module NAMUR Advanced, 1 input, 1 output



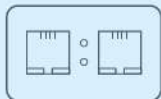
LRZ 928
Contact module D-Sub Advanced, 3 inputs, 3 outputs



LRZ 929
Profibus module Advanced, D-Sub 9-pin



LRZ 930
Ethernet module Advanced, RJ45



LRZ 932
Profinet module Advanced, RJ45



LRZ 933
CAN module Advanced, D-Sub 9-pin

*Interfaces of the Advanced generation replace modules in the process thermostats of the same name as per the above selection table

LAUDA Circulation and process thermostats

Function overview

Operating element	LOOP	PROE	PROEC	Integral T	Integral XT	Integral P	Variocool
Display	OLED	OLED	TFT	TFT	TFT	TFT	TFT
Mode of operation	3-button softkey	Cursor softkey	Multi-touch	Cursor softkey	Cursor softkey	Cursor softkey	Cursor softkey
Removable control	-	√	√	Z	Z	Z	-
User management	-	-	√	Operator / Viewer	Operator / Viewer	Operator / Viewer	-
Data logging, export to USB stick	-	-	√	√	√	√	-
1-point calibration	√	√	√	√	√	√	√
2-point calibration	√	√	√	√	√	√	-
Self-adaptation controller	-	-	√	√	√	√	-
Safety mode	-	√	√	√	√	√	-
Programmer, programs/segments	-	1 / 20	100 / 5000	5 / 146	5 / 146	5 / 146	5 / 146
Programmer, tolerance range function	-	√	√	√	√	√	√
Ramp function	-	-	√	Z	Z	Z	-
Timer function	-	-	√	√	√	√	-
Countdown function	-	-	√	-	-	-	-
Graphic temperature profile display	-	-	√	√	√	√	√
Pump pressure display (digital)	-	-	-	√	√	√	-
Adjustable bypass	-	-	-	√	√	√	√
Level indicator (digital)	-	√	√	√	√	√	√
Standby timer	√	√	√	√	√	√	√
Flow control instrument	-	-	-	-	-	-	Z
Flow pressure control	-	-	-	-	√	√	-
Flow measurement + control	-	-	-	-	Z	Z	-
Overflow	-	√	√	√	√	√	-
Low-level alarm	√	√	√	√	√	√	√
Drain tap	-	√	√	√	√	√	√

Z = Available as an accessory

LAUDA Circulation and process thermostats

Technical data according to DIN 12876 standard

Device type	Working temperature range °C	Temperature stability ±K	Cooling of the refrigerating machine	Heater power max. kW	Cooling output kW													
					200 °C	100 °C	20 °C	10 °C	0 °C	-10 °C	-20 °C	-30 °C	-40 °C	-50 °C	-60 °C	-70 °C	-80 °C	-90 °C

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VC 1200	-20 ... 80	0.05	Air	2.3	-	-	1.20	1.00	0.70	0.40	0.14	-	-	-	-	-	-	-
VC 1200	-20 ... 80	0.05	Air	2.3	-	-	1.12	0.92	0.62	0.32	0.06	-	-	-	-	-	-	-
VC 1200 W	-20 ... 80	0.05	Water	2.3	-	-	1.20	1.00	0.70	0.40	0.14	-	-	-	-	-	-	-
VC 1200 W	-20 ... 80	0.05	Water	2.3	-	-	1.12	0.92	0.62	0.32	0.06	-	-	-	-	-	-	-
VC 2000	-20 ... 80	0.05	Air	2.2	-	-	2.00	1.50	1.06	0.68	0.38	-	-	-	-	-	-	-
VC 2000	-20 ... 80	0.05	Air	2.2	-	-	1.92	1.42	0.98	0.60	0.30	-	-	-	-	-	-	-
VC 2000 W	-20 ... 80	0.05	Water	2.2	-	-	2.00	1.50	1.06	0.68	0.38	-	-	-	-	-	-	-
VC 2000 W	-20 ... 80	0.05	Water	2.2	-	-	1.92	1.42	0.98	0.60	0.30	-	-	-	-	-	-	-
VC 3000	-20 ... 80	0.05	Air	1.5	-	-	3.00	2.40	1.68	0.95	0.45	-	-	-	-	-	-	-
VC 3000	-20 ... 80	0.05	Air	1.5	-	-	2.80	2.20	1.48	0.75	0.25	-	-	-	-	-	-	-
VC 3000 W	-20 ... 80	0.05	Water	1.5	-	-	3.00	2.40	1.68	0.95	0.45	-	-	-	-	-	-	-
VC 3000 W	-20 ... 80	0.05	Water	1.5	-	-	2.80	2.20	1.48	0.75	0.25	-	-	-	-	-	-	-
VC 5000	-20 ... 80	0.05	Air	4.5	-	-	5.00	3.90	2.75	1.70	0.90	-	-	-	-	-	-	-
VC 5000	-20 ... 80	0.05	Air	4.5	-	-	4.65	3.55	2.40	1.35	0.55	-	-	-	-	-	-	-
VC 5000 W	-20 ... 80	0.05	Water	4.5	-	-	5.00	3.90	2.75	1.70	0.90	-	-	-	-	-	-	-
VC 5000 W	-20 ... 80	0.05	Water	4.5	-	-	4.65	3.55	2.40	1.35	0.55	-	-	-	-	-	-	-
VC 7000	-20 ... 80	0.10	Air	4.5	-	-	7.00	5.30	3.70	2.40	1.30	-	-	-	-	-	-	-
VC 7000	-20 ... 80	0.10	Air	4.5	-	-	6.65	4.95	3.35	2.05	0.95	-	-	-	-	-	-	-
VC 7000 W	-20 ... 80	0.10	Water	4.5	-	-	7.00	5.30	3.70	2.40	1.30	-	-	-	-	-	-	-
VC 7000 W	-20 ... 80	0.10	Water	4.5	-	-	6.65	4.95	3.35	2.05	0.95	-	-	-	-	-	-	-
VC 10000	-20 ... 80	0.10	Air	7.5	-	-	10.00	7.60	5.30	3.50	2.00	-	-	-	-	-	-	-
VC 10000	-20 ... 80	0.10	Air	7.5	-	-	9.65	7.25	4.95	3.15	1.65	-	-	-	-	-	-	-
VC 10000 W	-20 ... 80	0.10	Water	7.5	-	-	10.00	7.60	5.30	3.50	2.00	-	-	-	-	-	-	-
VC 10000 W	-20 ... 80	0.10	Water	7.5	-	-	9.65	7.25	4.95	3.15	1.65	-	-	-	-	-	-	-

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S 1200	-20 ... 90	0.10	Water	3.0	-	-	1.20	0.90	0.60	0.35	0.08	-	-	-	-	-	-	-
S 2400	-20 ... 90	0.10	Water	6.0	-	-	2.45	1.93	1.40	0.88	0.20	-	-	-	-	-	-	-
S 4400	-20 ... 90	0.10	Water	12.0	-	-	4.40	3.50	2.60	1.65	0.70	-	-	-	-	-	-	-