

## PRODUCT DATA SHEET

Standing: 2023-08-02

LAUDA Integral IN 530 TW Process thermostat  
 400 V; 3/PE; 50 Hz & 460 V; 3/PE; 60 Hz  
 Part Number: L003702

### Features

- Process thermostat with integrated cooling system for dynamic temperature control within external circuits
- Coloured TFT display for simultaneous indication of actual & set values and graphic illustration of the temperature profile
- Clear text menu navigation, six selectable languages DE, EN, FR, ES, IT, RU
- Management of heat transfer liquids with stored properties
- Easy input via cursor and soft keys. Additional Tmax key for overtemperature protection
- SelfCheck Assistant for system diagnosis
- Fully electronic continuous controller with PID action for internal & external control
- Self adapt function for determination of control parameters
- PowerAdapt system for the use of the maximum possible amount of heat permitted by the power supply system
- Low-level and adjustable over-temperature protection with acoustic alarm for use with flammable and non-flammable liquids
- Extremely powerful pressure pump
- USB and Ethernet interface equipped as standard
- Port for external Pt100 integrated, second external Pt100 feasible via interface module
- Remote fault indication through floating contact
- Option for upgrading up to 2 additional interfaces (RS 232/485, Profibus, analogue, contact or EtherCAT module)
- Programmer with 150 temperature/time segments that can be separated into 5 programs
- Adjustable bypass for pressure limiting
- Digital display of pump pressure
- Integrated web server for browser based operation in local area networks via PC, tablet or smart phone, secure data transfer due to authentication procedure and encryption
- SmartCool system for energy-saving digital cooling management including compressor on-off control
- Condenser cooling Water
- Utilises traditional refrigerants (HFCs) in accordance with European legislation to control F-gases (EU) 517/2014



Reserve technical changes

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 LAUDA DR. R. WOBSEY Verwaltungs-GmbH  
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 Registergericht Mannheim • HRB 560226

Geschäftsführer:  
 Dr. Gunther Wobser (Vors.), Dr. Mario Englert,  
 Dr. Ralf Hermann, Dr. Marc Stricker  
 Beirat: Dr. Gerhard Wobser

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### Options included

- Labeling China



Working temperature min.  
-30 °C



Working temperature max.  
120 °C

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## Technical Features (according to DIN 12876)

Working temperature range	-30 ... 120 °C
Ambient temperature range	5 ... 40 °C
Temperature stability	0.05 ± K
Heater power max.	8 kW
Power consumption max.	11 kW
Current max.	16 A
Pump Pressure max.	3,5 bar (50 Hz), 4,6 bar (60 Hz)
Pump flow rate max. (pressure)	40 L/min (50 Hz); 65 L/min (60 Hz)
In / Outlet connection thread (outside)	M30 x 1,5
Inlet/outlet hose size	3/4"
Filling volume min.	7.2 L
Filling volume max.	20.5 L
Water cooling connection thread (outside)	3/4 "
Recommended cooling water temperature	15 °C
Cooling water flow rate	14.5 L/min
Recommended pressure difference cooling water	3 bar
Pressure difference cooling water min.	0.8 bar
Max. pressure difference cooling water	10 bar
Maximal pressure cooling water	10 bar
Overall dimensions (WxDxH)	560 x 550 x 1325 mm
Weight	150 kg
Noise level	62 dB(A)
Refrigerant stage 1	R-449A (GWP 1397); 1.200 kg; 1.7 t CO2-eq
Power supply	400 V; 3/PE; 50 Hz & 460 V; 3/PE; 60 Hz
Power plug	Power cord with plug (IEC 60309, 5-pol, CEE, red, 16 A)

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Temperature	Heat transfer liquid	Cooling Capacity 50 Hz	Cooling Capacity 60 Hz
100 °C	Thermal oil	6 kW	6 kW
20 °C	Ethanol	6 kW	6 kW
10 °C	Ethanol	5.5 kW	5.5 kW
0 °C	Ethanol	4.5 kW	4.5 kW
-10 °C	Ethanol	3 kW	3 kW
-20 °C	Ethanol	1.6 kW	1.6 kW
-30 °C	Ethanol	0.7 kW	0.7 kW

### Standard accessories

- 2 nipples 3/4" with screw cap G3/4 for pump connectors
- 2 nipples 1/2" with screw cap G3/4 for cooling water

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