

PRODUCT DATA SHEET

Standing: 2024-03-18

LAUDA Integral IN 230 TW

Process thermostat 230 V; 50 Hz

Part Number: L002665

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) 573/2024



Reserve technical changes

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

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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. | 2.7 kW |
| Power consumption max. | 3.7 kW |
| Current max. | 16 A |
| Pump Pressure max. | 3,5 bar |
| Pump flow rate max. (pressure) | 40 L/min |
| In / Outlet connection thread (outside) | G 3/4" |
| Inlet/outlet hose size | 3/4" |
| Filling volume min. | 3.6 L |
| Filling volume max. | 8.7 L |
| Water cooling connection thread (outside) | 3/4 " |
| Recommended cooling water temperature | 15 °C |
| Cooling water temperature max. | 30 °C |
| Cooling water flow rate | 3 L/min |
| Recommended pressure difference cooling water | 3 bar |
| Pressure difference cooling water min. | 0.8 bar |
| Max. pressure difference cooling water | 5 bar |
| Maximal pressure cooling water | 10 bar |
| Overall dimensions (WxDxH) | 430 x 550 x 760 mm |
| Weight | 85 kg |
| Noise level | 60 dB(A) |
| Refrigerant stage 1 | R-449A (GWP 1397); 0.450 kg; 0.6 t CO2-eq |
| Power supply | 230 V; 50 Hz |
| Power plug | Power cord with angled plug (CEE7/7) |

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| Temperature | Heat transfer liquid | Cooling Capacity 50 Hz |
|-------------|----------------------|------------------------|
| 100 °C | Thermal oil | 2.3 kW |
| 20 °C | Ethanol | 2.3 kW |
| 10 °C | Ethanol | 2.3 kW |
| 0 °C | Ethanol | 1.9 kW |
| -10 °C | Ethanol | 1.3 kW |
| -20 °C | Ethanol | 0.75 kW |
| -30 °C | Ethanol | 0.35 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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