

# **PRESTO W91x**

# Powerful Temperature Control Systems for demanding applications with a temperature range from -91 °C to +250 °C

The PRESTO W91 Highly Dynamic Temperature Control Systems are amongst the most powerful units available. Their impressive power is harnessed by cutting-edge control technology. The W91 provides extraordinary heating, cooling, and pumping performance. But it also comes with the functions and features that make the new generation of PRESTO so unique.

# Your advantages

- · Extremely fast cool-down and heat-up times
- · Wide working temperature range without changing the bath fluid
- · Very fast compensation of exothermic and endothermic reactions
- Unsurpassed power and efficiency
- · Heating capacity up to 36 kW
- Ambient temperature range +5 °C to +40 °C
- Space optimized design creates more room directly next to the units
- Integrated 5.7" industrial color touchscreen displays all essential information and enables simple fingertip control
- Extensive warning, protection, and monitoring functions with detailed self-explanatory messages
- · ICC cascade control for extraordinary precision, temperature stability ±0.05 °C ... ±0.2 °C
- · Integrated programmer with real-time clock
- · Filling level indicator and pump capacity displayed electronically
- · Powerfol circulating pumps, electronically adjustable in stages or by setting the pressure value
- Interface for SD memory card
- · Connections for USB, Ethernet, RS232, and Alarm output
- Optional analog connections, RS485, Profibus DP, Modbus

# **Technical Data**

Order No.	9421913
Category	Temperature Control PRESTO
Working temperature range (°C)	-91 +250
Temperature control	ICC
Temperature stability (°C)	±0.05 ±0.2
Setting / display resolution	0.01 °C
Temperature Display	TFT Touchscreen
Heating capacity (kW)	12
Cooling capacity (Medium Ethanol)	°C200100200-20-40-60-80kW111111109.596.51.5
Pump capacity flow rate (I/min)	18 70
Pump capacity flow pressure (bar)	0.8 5.5
Pump connections	M38x1.5
Refrigerant	R23, R404A





External Pt100 sensor connection	integrated
Digital interface	RS232, RS485, SD memory card, USB, Ethernet, Modbus, Alarm-out Optional: RS485
Ambient temperature	5 40 °C
Dimensions W x L x H (cm)	95 x 127 x 190
Weight (kg)	785
Sound pressure level (distance 1 m) max. (dBA)	74
Viscosity max. (cSt)	70
Process volume min. (active heat exchanger volume) liters	28 (16)
Internal usable expansion vol. (liters)	40
Classification according to DIN12876-1	Classification III (FL)
Analog connection input / output	Optional
Cooling of compressor	2-stage Water
Available voltage versions	400V/3PNPE/50Hz 480V/3PPE/60Hz

All data refers to the nominal voltage of 400 V, 3-phase, nominal frequency of 50 Hz and ambient temperature of +20 °C. Cooling capacity measured at max. pump stage. All pump data refers to a bath fluid with a specific density of 1 kg/dm<sup>3</sup>.

### Characteristics

### Display

TFT State-of-the-art display

technology TFT Display for comfortable user guidance, colored display of measurement values, graphs and control options, user-defined views

### Operation

#### Optimal ease of use 2

Touch screen for direct operation via display

#### Instructions inside Ê

Help menus and explanations in plain text for all control options, help messages and warning messages

### MULTI Multilingual user guidance

Language selection for display of control options, notifications and warning messages via touchscreen

# Convenience for several users

Administrator level for customizing instrument settings, user levels with limited permissions for fast and safe defined access, password protection, all levels adjustable

### **Temperature Control**

For perfect results 'Intelligent Cascade Control', automatic & self optimizing adjustment of PID control parameters, temperature stability ±0.01 °C ... <±0.2 °C



'Temperature Control Features', for individual optimization, access to all important control parameters, additional settings for band limit, limits, co-speedfactor etc.



Control from the external application

External Pt100 sensor connection for precise measurement and control directly in the external application

ATC<sup>3</sup> Highest measuring accuracy 'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration

### **Refrigeration Technology**

**Consistent cooling capacity** Easily removable venting grid for quick and easy cleaning



100 % Cooling capacity Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



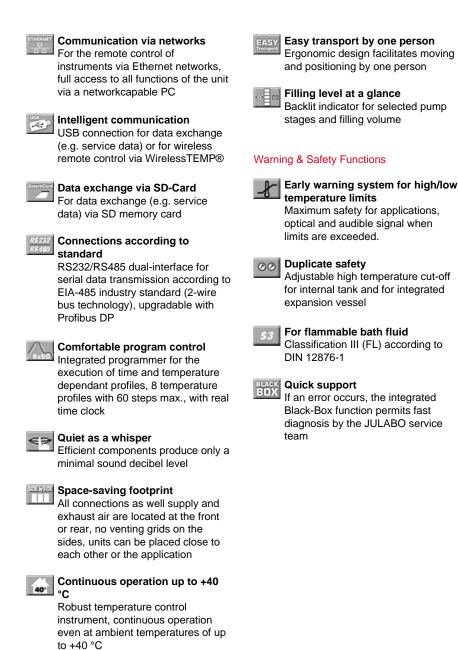
Energy saving cooling Proportional cooling control for automatic adjustment of cooling power or temporary switch-off of compressor as needed to save up to 90 % energy in comparison to unregulated cooling machines

# **Technical Features**



Intelligent pump system Reliable and consistent pump capacity, electronically adjustable pump stages or pressure value, automatic adjustment of pump capacity to viscosity





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