

# **PRESTO W92**

# Powerful Temperature Control Systems for demanding applications with a temperature range from -92 °C to +250 °C

PRESTO W92 - Highly Dynamic Temperature Control Systems The PRESTO W92 Highly Dynamic Temperature Control Systems are amongst the most powerful units available. Their impressive power is harnessed by cutting-edge control technology. The W92 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

- Powerful circulating pumps, electronically adjustable in stages or by setting the pressure value Choose between a magnetically coupled centrifugal pump or a magnetically coupled gear pump for pressures up to 5.5 bar and virtually constant flow rate at any pressure
- 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
- Ambient temperature range +5 °C to +40 °C
- · Integrated programmer with real-time clock
- · Filling level indicator and pump capacity displayed electronically
- Interface for SD memory card
- · Connections for USB, Ethernet, RS232, and Alarm output
- · Optional analog connections, RS485, Profibus DP, Modbus
- 2-stage water-cooled refrigeration system

### **Technical Data**

Order No.	9421922
Category	Temperature Control PRESTO
Working temperature range (°C)	-92 +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)	°C 200 100 20 0 -20 -40 -60 -80 kW 31 29 19 15.5 9.5 9 6.5 1.5
Pump capacity flow rate (I/min)	26 80
Pump capacity flow pressure (bar)	0.5 3.0
Pump connections	M38x1.5
Refrigerant	R23, R404A
External Pt100 sensor connection	integrated
Digital interface	RS232, SD memory card, USB, Ethernet, Modbus, Alarm-out





	Optional: RS485, Profibus
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)	50
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
Cooling water connection	G $\frac{3}{4}$ male with barbed fittings for tubing $\frac{1}{2}$ ID
Cooling water consumption (I/min)	1643
Cooling water differential pressure (bar)	0.5
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

#### **TET** 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

Touch screen for direct operation via display

#### Instructions inside Ô

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

#### 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**



ICC 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 Pt100 application

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

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



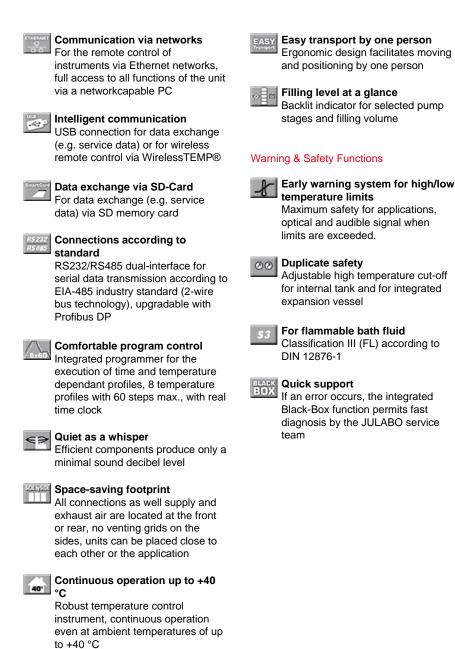
**Energy saving cooling** Proportional cooling control for automatic adjustment of cooling power or temporary switch-off of compressor as needed to save up to 90 % energy in comparison to unregulated cooling machines

#### **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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