

## Thermogard XP Temperature Management System Specifications

ZOLL's Thermogard XP® (TGXP) Temperature Management System provides the power and control you need to rapidly, safely, and effectively manage the core body temperature of critically ill or surgical patients.<sup>1-4</sup>

ZOLL combines precise temperature management with the critical care functions of a standard central venous catheter (CVC). Cool or warm saline circulates through the catheter in a closed loop, quickly cooling or warming the patient as venous blood passes over the balloons, without infusing saline into the patient.

### Experience the benefits of Thermogard XP:

- Rapid and precise core body temperature management
- System automatically maintains target temperature within  $\pm 0.2^{\circ}\text{C}$
- Easy to use
- Multifunction catheter doubles as a central venous catheter (CVC), adding vital functionality to a line that is already placed
- Software enables real-time temperature display, data storage and download
- Reduces nursing workload by 74%<sup>5</sup> — no need to constantly monitor temperature, manage shivering, check pads, etc.
- Enables unhindered patient access



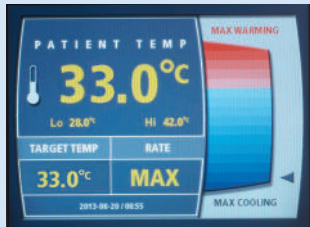
<sup>1</sup> Mayer SA, et al. Critical Care Medicine. 2004;(3)212:2508-2515.

<sup>2</sup> Diringier MN, et al. Critical Care Medicine. 2004;(32)2:559-564.

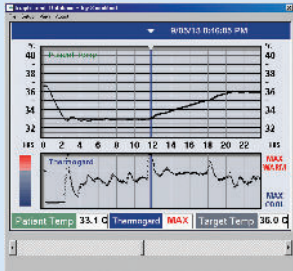
<sup>3</sup> Hoedemaekers CW, et al. Critical Care. 2007;11:R91.

<sup>4</sup> Heard KJ, et al. Resuscitation. 2010;81:9-14.

<sup>5</sup> ICEREA Deye N, et al. Circulation. 2015;132:182-193.



View current patient and system data on the display or synchronize with your hospital monitor.



Track patient and system data and electronically transfer to the patient's file.



### Start-up Kit

Tubing set, including heat exchange coil, air trap, and roller pump tubing.

ZOLL Medical Corporation  
Worldwide Headquarters  
269 Mill Road  
Chelmsford, MA 01824  
978-421-9655  
800-804-4356

### Dimensions

**Height:** 45 in (114 cm)  
**Width:** 17 in (43 cm)  
**Depth:** 30 in (76 cm)  
**Weight:** 115 lbs (52 kg)

### Electrical Configuration:

100-120 VAC, 50/60 Hz, 5A  
220-240 VAC, 50/60 Hz, 2.25A  
**Voltage:** 115 V, 230 V  
**Fuse Protection:**  
T6.3A (slow blow) 5 x 20 mm

### Environmental

**Operating Temperatures:**  
10°C – 27°C (50°F – 81°F)  
**Operating Humidity:**  
30 to 75% noncondensing  
**Atmospheric Pressure:**  
70 kPa to 106 kPa

### Chiller and Heater

**Reservoir Volume:**  
2.0 liters (0.5 gal)  
**Pump Capacity:**  
7 lpm at 0 m head (0 ft)  
**Temperature Range:**  
0°C – 42°C  
**Refrigerant:** HFC 134a

### Controller and Display

**Screen Display:**  
6.4 in. (16.25 cm) LCD  
color VGA  
**Controls:**  
Push buttons and knob  
**Temperature Input:**  
Thermistor, YSI-400 series  
**Articulation:**  
180° swivel, 45° tilt  
**Data Interface:**  
Serial RS-232C, 9-pin  
sub-D connector  
**Alarms:**  
Audible tones and displayed  
text messages  
**Displayed Temperature Range:**  
26°C – 42°C  
**Displayed Temperature Accuracy:**  
± 0.2°C

### Saline Coolant Circuit

**Priming Volume:** 200 ml  
**Heat Exchanger:** Disposable  
stainless steel coil  
**Priming Source:** Sterile saline  
solution (hospital provided)  
**Patient Connection:** Directional  
Luer connections on 72-in.  
(183-cm) lines  
**Pump tubing:** Roller pump  
compatible with directional fittings  
**Sterility:** Gamma sterilized  
**Saline alarm:** Reservoir-level  
detection and alarm system  
**Coolant Circuit Operating Life:**  
Replace disposable components  
after seven (7) days of continuous use

### Equipment Classifications

**Type of Protection Against  
Moisture:** Ordinary  
**Type of Protection Against  
Electric Shock:** Type BF for  
temperature inputs  
Type B for catheter connections  
**Protection Class:** 1  
**Mode of Operation:** Continuous

### Approved Patient Temperature Probes

**Temperature Probe Standard:**  
YSI-400  
**YSI-400 temperature probes  
verified to work with the system:**  
Mallinckrodt Medical Foley Probe 8F  
(200818-001)  
Mallinckrodt Medical Foley Probe 10F  
(200818-002)  
Mallinckrodt Medical Foley Probe 12F  
(200818-003)  
Mallinckrodt Medical Foley Probe 14F  
(200818-004)  
Mallinckrodt Medical Foley Probe 16F  
(200818-005)  
Mallinckrodt Medical Foley Probe 18F  
(200818-006)  
Mallinckrodt Medical GP/Rectal  
Probe 9F (200820-001)  
Smith Medical Foley Probe 10 FR  
(600244-001)  
Smith Medical Foley Probe 12 FR  
(600224-002)

Smith Medical Foley Probe 14 FR  
(600224-003)  
Smith Medical Foley Probe 16 FR  
(600224-004)  
Smith Medical Foley Probe 18 FR  
(600224-005)  
Smith Medical GP/Rectal Probe 9 FR  
(600225-001)  
Smith Medical GP/Rectal Probe 12 FR  
(600225-002)  
YSI-400 Temperature probes verified  
to work with the system and Rüsch  
Patient Interconnection Cable –  
Rüsch P/N 179516  
Rüsch Sensor Temperature Foley  
Catheters (CH 8, 10, 12, 14, 16, 18)  
– Rüsch P/N 179360  
Rüsch Temperature Supracath (CH 10,  
12, 14) – Rüsch P/N 179370



Specifications subject to change without notice.

Copyright © 2023 ZOLL Medical Corporation. Cool Line, Icy, IVTM, Solex 7, Quattro, Thermogard XP, and ZOLL are trademarks or registered trademarks of ZOLL Medical Corporation and/or ZOLL Circulation Inc. in the United States and/or other countries. All other trademarks are the property of their respective owners.

Printed in U.S.A. MCN TP 2004 0259 APAC 104217-001, Rev. 02

**ZOLL**®