



Technical Specifications

ZOLL's new Thermogard HQ Temperature Management System combines the speed, precision, and clinical intelligence you need to manage the core temperature of your critically ill patients with "set-up-and-go" efficiency.

Thermogard HQ provides reduced variability and easy-to-access data, simplifying high-quality temperature management and streamlining the path to better patient care.

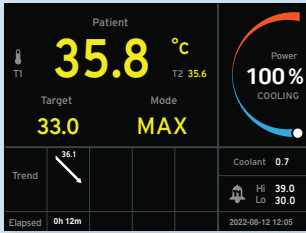
Thermogard HQ combines precise temperature management with the critical care functions of a standard central venous catheter (CVC).

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 the Thermogard HQ

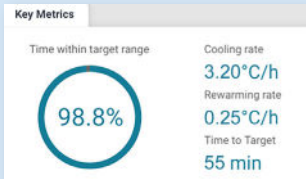
- Rapid and precise core body temperature management
- Delivers up to 3.6°C per hour cooling rates, often reaching target temperature in under an hour
- A complete family of multifunction catheters provides flexibility in power and placement site

- System automatically maintains target temperature within $\pm 0.2^{\circ}\text{C}$ ¹
- Eliminating the need for skin checks reduces workload by as much as 74%, making it nursing-efficient²
- Speed metrics on-screen let you monitor performance at a glance
- Temperature management is now integrated via Wi-Fi into the ZOLL RescueNet® CaseReview system to support quality assurance and improvement



Console Interface

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



RescueNet™ CaseReview for Temperature Management

Access retrospective patient vitals and console data online to support quality improvement initiatives.



Start-up Kit

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

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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, 6A
220-240 VAC, 50/60 Hz, 3A
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: RFC 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:
Digital output using RJ45
The USB port accepts a FAT32-
formatted USB drive with equal to
or less than 32 GB capacity.
Wi-Fi is available for CaseReview
Alarms:
Audible tones and displayed
text messages
Displayed Temperature Range:
26°C – 42°C
Displayed Temperature Accuracy:
± 0.2°C

¹Hoedemaekers CW, et al. *Critical Care*. 2007;11:R91.

²Maekawa T, et al. *Therapeutic Hypothermia and Temperature Management Journal*. 2020;10(3): 179-185.

Specifications subject to change without notice.

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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

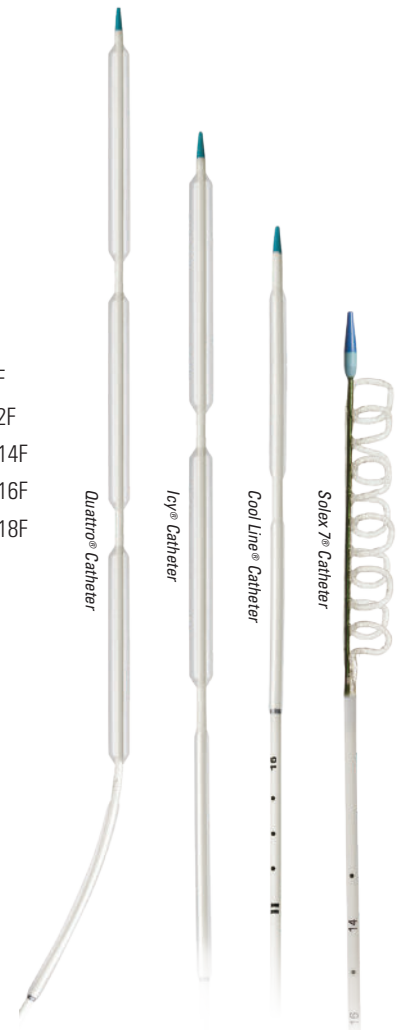
Equipment Classifications

**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 and 4400
**YSI-400 and 4400 temperature
probes verified to work with
the system:**
C.R. Bard Foley Catheter, BARDEX, 8F
C.R. Bard Foley Catheter, BARDEX, 12F
C.R. Bard Foley Catheter, LUBRI-SIL, 14F
C.R. Bard Foley Catheter, LUBRI-SIL, 16F
C.R. Bard Foley Catheter, LUBRI-SIL, 18F
Covidien Foley Catheter with
Temperature Sensor, 8F
Covidien Foley Catheter with
Temperature Sensor, 10F
Covidien Foley Catheter with
Temperature Sensor, 12F
Covidien Foley Catheter with
Temperature Sensor, 14F
Covidien Foley Catheter with
Temperature Sensor, 16F
Covidien Foley Catheter with
Temperature Sensor, 18F
Covidien General Purpose Probe, 9F

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 Rüsçh
Patient Interconnection Cable – Rüsçh
P/N 179516
Rüsçh Sensor Temperature Foley
Catheters (CH 8, 10, 12, 14, 16, 18)
– Rüsçh P/N 179360
Rüsçh Temperature Supracath (CH 10,
12, 14) – Rüsçh P/N 179370



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