

# HemoSphere Monitor Technology Specifications

HemoSphere monitor offers full-range cuff, sensor, and catheter compatibility designed for individualized patient management. With expanded capabilities and predictive algorithms, HemoSphere monitor offers actionable insights to help you stay ahead of critical moments.



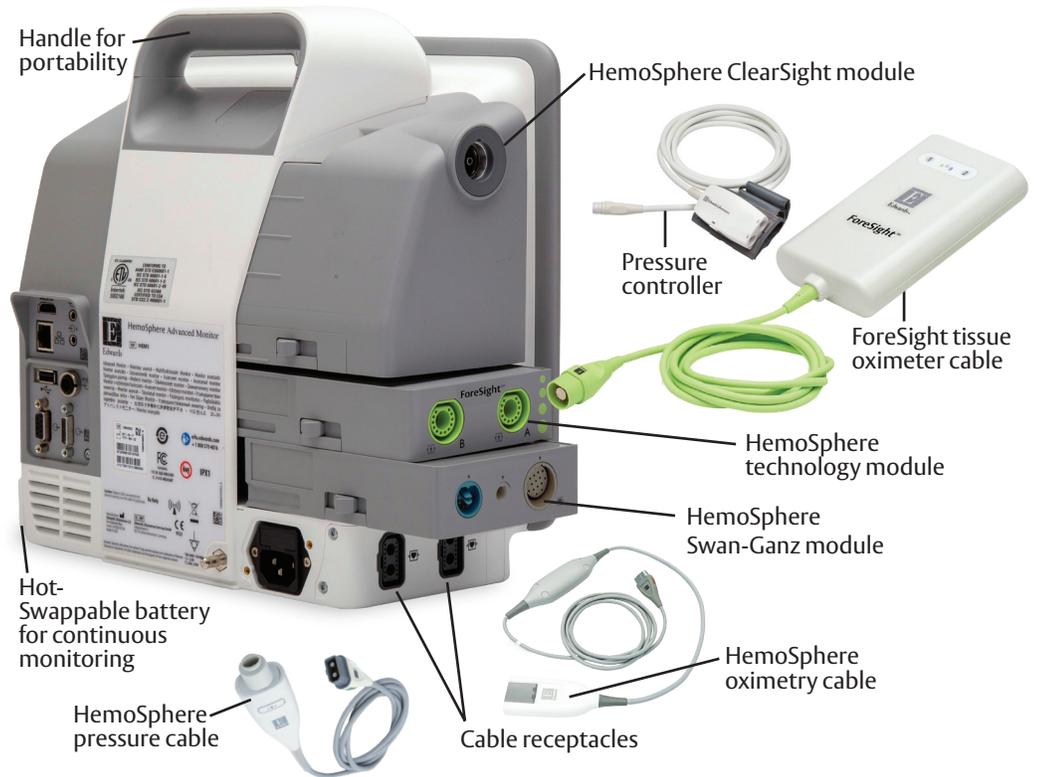
Right and left heart monitoring insights+



Acumen smart trends screen



Acumen Assisted Fluid Management software screen



## Compatible products and parameters include:

	Noninvasive			Minimally-invasive		Invasive	
	Acumen IQ cuff	ClearSight finger cuff	ForeSight sensor	Acumen IQ sensor	FloTrac sensor	Swan-Ganz catheter	PediaSat catheter
StO <sub>2</sub>			•				
ΔctHb			•				
HPI*	•			•		+	
Ea <sub>dyn</sub>	•			•		+	
dP/dt	•			•		+	
CO/CI	•	•		•	•	•	
SV/SVI	•	•		•	•	•	
SVV/PPV	•	•		•	•	+	
SVR/SVRI	•	•		•	•	•	
PVR/PVRI						•	
SvO <sub>2</sub>						•	
ScvO <sub>2</sub>							•
RVEF/EDV						•	
MAP	•	•		•	•		
PASP/PADP						•	
CVP**						•	

+ Parameters from Acumen IQ sensor that are viewable on the invasive screen are limited to SVV, Ea<sub>dyn</sub>, dP/dt, HPI, and PPV when Acumen IQ sensor is used along with Swan-Ganz catheter.

\* Acumen Hypotension Prediction Index (HPI) software is unlocked with the Acumen IQ sensor and Acumen IQ cuff.

\*\* CVP can be accessed with TruWave sensor in invasive mode.



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## HemoSphere bundles

Model	Description
<b>HEM7CARDIAC</b> (Cardiac bundle)	HemoSphere advanced monitoring system with Swan-Ganz module, oximetry cable, one pressure cable, HPI, and tissue oximetry system (module and cable)
<b>HEM7PCSR2</b> (Smart Recovery bundle)	HemoSphere advanced monitoring system with ClearSight module, pressure controller, heart reference sensor, one pressure cable, and HPI; tissue oximetry module included (cable must be purchased separately)
<b>HEM7T02</b>	HemoSphere advanced monitoring system with tissue oximetry system (module and cable)
<b>HEMCSMUPG</b> (HemoSphere upgrade)	Pressure controller, heart reference sensor, and the Windows 10 upgrade
<b>HEMAQCXUPG</b> (HemoSphere upgrade)	Tissue oximetry module and cable, HPI, pressure cable
<b>HEMCX2</b> (HemoSphere upgrade)	HemoSphere tissue oximetry system (module and cable) upgrade kit

## HemoSphere modules

<b>HEMSGM10</b>	HemoSphere Swan-Ganz module
Weight - approx. 1.0 lb (0.45 kg)	Height - 1.36 in (3.45 cm)
Width - 3.53 in (8.96 cm)	Depth - 5.36 in (13.6 cm)
<b>HEMTOM10</b>	HemoSphere technology module
Weight - 1.0 lb (0.45 kg)	Height - 1.4 in (3.5 cm)
Width - 3.5 in (9.0 cm)	Depth - 5.4 in (13.6 cm)
<b>HEMCSM10</b>	HemoSphere ClearSight module
Weight - approx. 2lb (0.9 kg)	Height - 5.1 in (13 cm)
Width - 5.6 in (14 cm)	Depth - 3.9 in (10 cm)

## HemoSphere cables\*\*

<b>AAFMC</b>	Acumen AFM cable
<b>HEMFSM10</b>	HemoSphere ForeSight oximeter cable
Weight - 2.4 lbs (1.05 kg)	Length - 239 in (6070 mm)
<b>HEMOXSC100</b>	HemoSphere oximetry cable
Weight - approx. 0.54 lbs (0.24 kg)	Length - 9.6 ft (2.9 m)
<b>HEMPSC100</b>	HemoSphere pressure cable
Weight - approx. 0.64 lbs (0.29 kg)	Length - 120 in (3048 mm)
<b>PC2K</b>	Pressure controller kit
	Length - 144 in (3657 mm)

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## Monitor (HEM1) specifications

Weight	10 ±0.2 lbs (4.5 ±0.1 kg)
Width - 12.4 in (315 mm)	Height - 11.7 in (297 mm)
	Depth - 5.56 in (141 mm)
Display	Active area - 12.1 in (307 mm)
	Resolution - 1024 x 768 LCD
Operating system	Windows 10 IoT
Rated supply voltage	100-240 Vac, 50/60 Hz
Rated input	1.5 to 2.0 Amps

## Input / output

Touch screen	Projective capacitive touch
RS-232 serial port (1)	Edwards proprietary protocol: maximum data rate = 57.6 kilo baud
USB ports (2)	1 USB 2.0, 1 USB 3.0
Ports	1 RJ-45 Ethernet, 1 HDMI
Hospital information system connectivity	Health Level 7 (HL7); integration services are subject to local availability
DPT pressure	DPT pressure out
ECG monitor input	Sync line conversion: 1V/mV; Input voltage range +/- 10V full scale; Resolution = ± 1 BPM; Range = 30 to 200 BPM; ¼ in. stereo jack; analog cable Accuracy = ±10% or 5 BPM of the input

## HemoSphere battery pack

<b>HEMBAT10</b>	HemoSphere battery pack
Weight - 1.1 lbs (0.5 kg)	Height - 1.38 in (35 mm)
Width - 3.15 in (80 mm)	Depth - 5.0 in (126 mm)
Cells - 4 x LiFePO <sub>4</sub> (lithium iron phosphate)	

\*\* For a complete list, please contact your Edwards Lifesciences sales representative

**CAUTION:** Federal (United States) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, precautions, and adverse events.



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