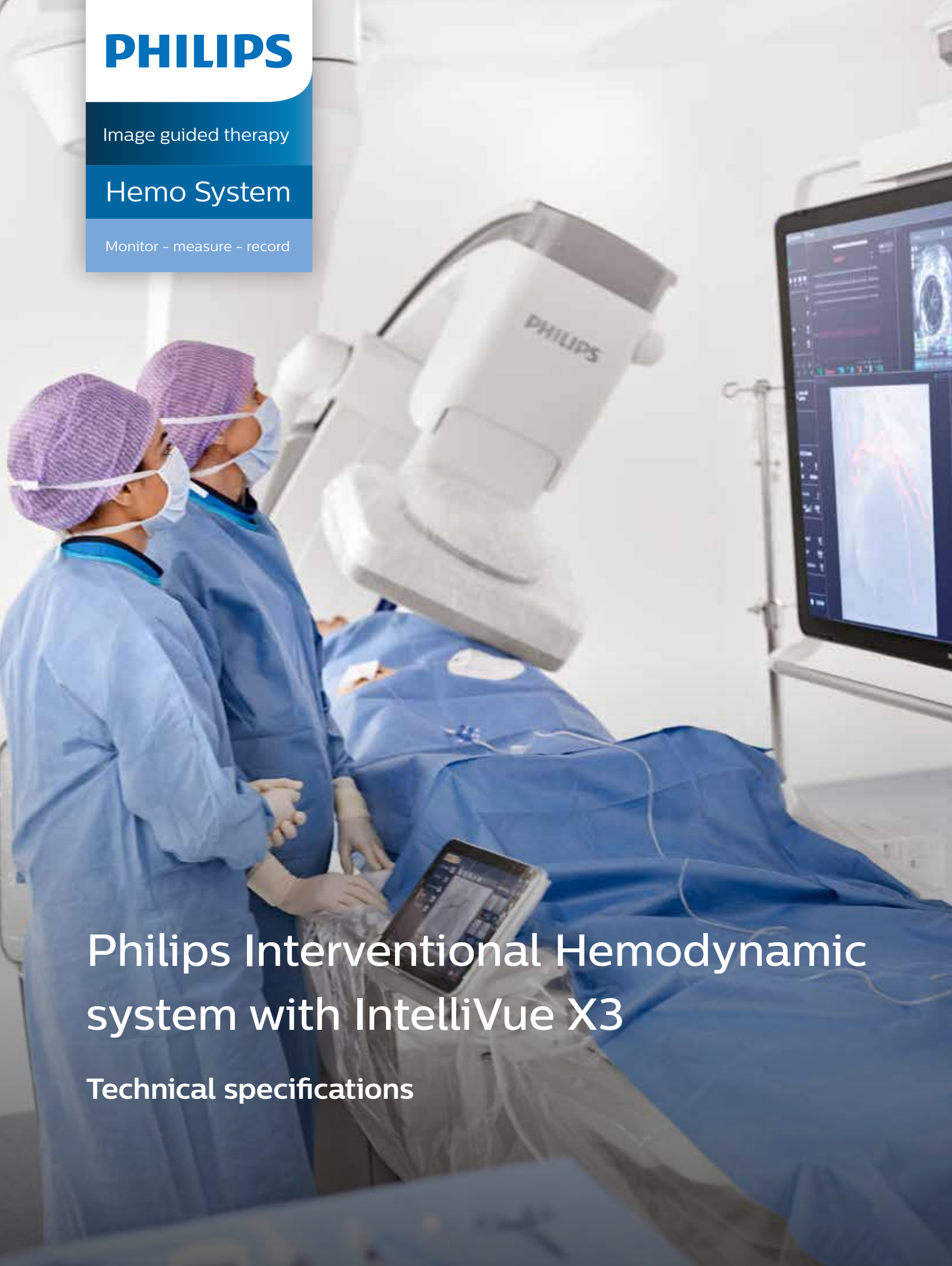
PHILIPS

Image guided therapy

Hemo System

Monitor - measure - record



Philips Interventional Hemodynamic system with IntelliVue X3

Technical specifications

Introduction

Improving productivity and patient outcome is vital for healthcare facilities to meet the growing demand for cath lab procedures. To further simplify cath lab workflow, Philips introduces the Interventional Hemodynamic system (Hemo system).

Hemo system brings advanced hemodynamic measurements into the interventional lab to support clinical decision making. This system is integrated with the market leading Philips IntelliVue X3 patient monitor mounted at the table side and a hemo workstation in the control room to perform hemodynamic analysis. Furthermore the system can be operated from the table side in the exam room via the Philips Azurion Touch screen module.

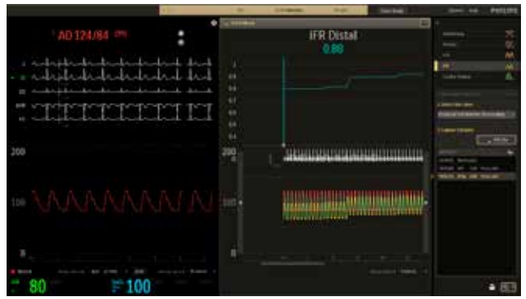
Content

Key advantages of the Hemo system

Integrated IntelliVue X3 patient monitor

Control of Philips Hemo on Touch Screen Module

Hemodynamic analyses performed in the control room can be shown in the exam room to help the users to stay focused on the task at hand.



Integrated iFR Spot and Scout pullback

incoporated Azurion's intuitive workflow approach

Confidently used by all staff members with minimal training

Technical specifications of the patient monitor IntelliVue X3, measurement extensions and Dock

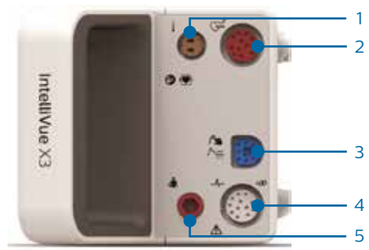
This section describes IntelliVue X3 patient monitor, extension and Dock as a signal acquisition device that provides input to the Hemo system during interventional procedures where all interaction is managed by the Hemo workstation (with Xper Information Management System software and Hemodynamic Application).
The IntelliVue X3, extension, Dock with the mounting bracket allow for flexible positioning at the table side.

IntelliVue X3, extension and Dock:

Weight 2,6 kg

Size 120 x 180 x 190 mm

The device front panel has patient cable/accessory connectors for invasive blood pressure, ECG, cardiac output, surface temperature, SpO_2, $etCO_2$, and non-invasive blood pressure.



IntelliVue X3

1 Temperature

2 Pressure connector for 2 pressures

3 SpO_2 (option from Philips FAST , Masimo or Nellcor)

4 ECG

5 Noninvasive blood pressure

Extension

1 $EtCO_2$ (optional Mainstream/Sidestream or Microstream connector)

2 Cardiac Output Thermodilution

3 Temperature

4 Pressure connector for 2 pressures

5 Connection to IntelliVue X3

IntelliVue Dock

1. MSL connector for monitor connection
2. Flexible Sync Output connector, to provide signal to other medical devices
3. AC power connector
4. LAN connector for connection to Hemo workstation

The IntelliVue Dock provides an external power supply for the monitor and extension when connected to mains power via AC power connector. IntelliVue Dock has Flexible Sync Output connector to output and synchronize signals to other medical devices.

- 1/4 stereo phone jack connector: 2 channels (tip and ring)
- 2 programmable analogue outputs:
- Analog ECG output (configurable at tip or ring) 2V/mV (default, 4V/mV; 1V/mV; 0.5V/mV; 0.25 V/mV selectable))
- Analog pressure output (configurable at tip or ring): 1V/100 mmHG; voltage swing ±4V
- Digital ECG pulse output (configurable at ring)

Possibility to split the signal if you want to use ECG lead I/II for different devices as the input. On X3 you can choose between QRS, primary lead or one of the pressure channels. Signals can be split if necessary.

Care and Cleaning

The X3 measurement extensions and Dock deploy chemically-resistant surface materials, designed to resist deterioration from cleaning and disinfection agents. Even against very aggressive disinfectants, the X3's the housing materials have been tested, and found to resist deterioration about 60 times longer than the housing material used for preceeding products. See the list of tested agents in the monitor's Instructions for Use.

Mounting bracket

General – IntelliVue X3, extension and Dock

Power Consumption:	< 20W when on IntelliVue Dock
Operating Voltage	36 to 60 V dc floating
Operating Temperature Range:	0 to 35°C (32 to 95°F) when charging the battery
Operating Relative Humidity Range:	15% to 95% humidity, non-condensing
Ingress Protection	IntelliVue X3, extension and Dock IP32 when mounted horizontally
Definition of IP 32: Protected against ingress of water when the water is dripping vertically and monitor is tilted up to 15°, and ingress of solid foreign objects 2,5 mm in diameter or larger	

Internal Battery (453564526811)

The battery is required for the operation of the monitor. The battery lifetime is 3 years from manufacturing date or 500 charge/discharge cycles.

Fits your clinical workflow

Choose the set-up that works best with your lab

Basic

Basic monitoring and hemodynamic analysis capabilities for main stream Interventional Cardiac procedures

Clinical and workflow functionality:

- Non-invasive blood pressure
- Body surface temperature
- 12 lead ECG
- 2 invasive blood pressures
- Calculated Cardiac Output Fick
- Respiration rate
- SpO_2 Philips FAST, Nellcor (Covidien) or Masimo
- Capture and store hemodynamic waveforms and ECG's
- Full disclosure (record and store all waveforms data for post case review and analysis)
- End case report (hemodynamic measurements and calculations)
- Print waveforms and hemodynamic analysis
- Store patient data
- Visualization of ST values
- Aortic Regurgitation (AR) Index

Clinical Options:

- Integrated Philips iFR/FFR
- Integrated FFR (compatible with Abbott)

Work Flow Options:

- Ability to operate in patient area
- Trolley

Integrated with Philips image guided therapy system

- Hemo control from Touch Screen Module
- Patient demographics
- Connected to FlexVision or Monitor Ceiling Suspension

Performance

Comprehensive monitoring and hemodynamic analysis capabilities for wide range of Interventional Cardiac procedures

Clinical and workflow functionality:

- Non-invasive blood pressure
- Body surface temperature
- 12 lead ECG
- 4 invasive blood pressures
- Thermodilusion Cardiac Output (and calculated Fick)
- Respiration rate
- SpO_2 Philips FAST, Nellcor (Covidien) or Masimo
- Capture and store hemodynamic waveforms and ECG's
- Full disclosure (record and store all waveforms data for post case review and analysis)
- End case report (hemodynamic measurements and calculations)
- Print waveforms and hemodynamic analysis
- Store patient data
- Visualization of ST values
- Aortic Regurgitation (AR) Index

Clinical Options:

- $EtCO_2$:
- Respironics LowFlo CO_2
- Covidien Microstream® CO_2
- Integrated Philips iFR/FFR
- Integrated FFR (compatible with Abbott)

Work Flow Options:

- Ability to operate in patient area
- Trolley

Integrated with Philips image guided therapy system

- Hemo control from Touch Screen Module
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- Connected to FlexVision or Monitor Ceiling Suspension

Measurement Specifications - ECG

IEC 60601-2-27:2011

ECG Specifications		
HR		
Range	15–300 bpm maximum delay: 10 seconds according to IEC 60601-2-27	
ST Numeric		
Range	-20–20 mm	
Accuracy	±0.5 mm or 15% whichever is greater	
Resolution	0.1 mm	
QT-HR Numeric		
Range - Adult	15–150 bpm	
Range - Pedi/neo	15–180 bpm	
Resolution	1 bpm	
Sinus and SV Rhythm Ranges		
Brady	• Adult: • Pedi: • Neo:	15–59 bpm 15–79 bpm 15–89 bpm
Normal	• Adult: • Pedi: • Neo:	60–100 bpm 80–160 bpm 90–180 bpm
Tachy	• Adult: • Pedi: • Neo:	>100 bpm >160 bpm >180 bpm
Bandwidth		
Diagnostic mode	Adult/neo/pedi:	0.05–150 Hz
Monitoring mode	• Adult: • Neo/pedi:	0.5–40 Hz 0.5–55 Hz
Notch filter	50/60 Hz	

Differential Input Impedance
- >2 MΩ RA-LL leads (Resp)
- >5 MΩ at all other leads (at 10 Hz including patient cable)

Common Mode Rejection Ratio
- Diagnostic Mode: >86 dB (with a 51 kΩ/47 nF imbalance)
- Filter Mode: >106 dB (with a 51 kΩ/47 nF imbalance)

Electrode Offset Potential Tolerance
±500 mV

Auxiliary Current (Leads off Detection)
- Active Electrode: <100 nA
- Reference Electrode: <900 nA

Input Signal Range
±5 mV

Respiration

Respiration Performance Specifications		
Respiration Rate		
Range	• Adult/pedi: • Neo:	0–120 rpm 0–170 rpm
Accuracy	• At 0–120 rpm ±1 rpm • At 120–170 rpm ±2 rpm	
Resolution	1 rpm	
Bandwidth	0.3–2.5 Hz (-6 dB)	
Noise	<25 mΩ (rms) referred to the input	
Respiration Alarm Specifications		
High		
Range	• Adult/pedi: • Neo:	10–100 rpm 30–150 rpm
Adjustment	• <20 rpm: 1 rpm steps • ≥20 rpm: 5 rpm steps	
Delay	Maximum 14 seconds	

Low		
Range	• Adult/pedi: • Neo:	0–95 rpm 0–145 rpm
Adjustment	• <20 rpm: 1 rpm steps • ≥20 rpm: 5 rpm steps	
Delay	• For limits from 0 to 20 rpm: maximum 4 seconds • For limits above 20 rpm: maximum 14 seconds	
Apnea Alarm		
Range	10–40 seconds	
Adjustment	5 second steps	

Noninvasive Blood Pressure (NBP)

Complies with:
- **IEC 80601-2-30:2010 + A1:2013**
- **EN 80601-2-30:2010 + A1:2015**

NBP Performance Specifications	
Systolic	
Range	• Adult: 30–270 mmHg (4–36 kPa) • Pedi: 30–180 mmHg (4–24 kPa) • Neo: 30–130 mmHg (4–17 kPa)
Diastolic	
Range	• Adult: 10–245 mmHg (1.5–32 kPa) • Pedi: 10–150 mmHg (1.5–20 kPa) • Neo: 10–100 mmHg (1.5–13 kPa)
Mean	
Range	• Adult: 20–255 mmHg (2.5–34 kPa) • Pedi: 20–160 mmHg (2.5–21 kPa) • Neo: 20–120 mmHg (2.5–16 kPa)
Accuracy	
Max. Std. Deviation	8 mmHg (1.1 kPa)
Max. Mean Error	±5 mmHg (±0.7 kPa)
Measurement Time	
Typical at HR >60 bpm	
Auto/Manual	• Adult: 30 seconds • Neo: 25 seconds • Stat: 20 seconds
Maximum time	• Adult/pedi: 180 seconds • Neo: 90 seconds
Cuff Inflation Time	
Typical for normal adult cuff	<10 seconds
Typical for neonatal cuff	<2 seconds
Initial Cuff Inflation Pressure	• Adult: 165 ±15 mmHg • Pedi: 130 ±15 mmHg • Neo: 100 ±15 mmHg
Maximum Cuff Pressure	• Adult/pedi: 300 mmHg • Neo: 150 mmHg

NBP Alarm Specifications	
Systolic	
Range	• Adult: 30–270 mmHg (4–36 kPa) • Pedi: 30–180 mmHg (4–24 kPa) • Neo: 30–130 mmHg (4–17 kPa)
Adjustment	• 10–30 mmHg (1.5–4 kPa): 2 mmHg (0.5 kPa) • >30 mmHg (>4 kPa): 5 mmHg (1 kPa)
Diastolic	
Range	• Adult: 10–245 mmHg (1.5–32 kPa) • Pedi: 10–150 mmHg (1.5–20 kPa) • Neo: 10–100 mmHg (1.5–13 kPa)
Adjustment	• 10–30 mmHg (1.5–4 kPa): 2 mmHg (0.5 kPa) • >30 mmHg (>4 kPa): 5 mmHg (1 kPa)
Mean	
Range	• Adult: 20–255 mmHg (2.5–34 kPa) • Pedi: 20–160 mmHg (2.5–21 kPa) • Neo: 20–120 mmHg (2.5–16 kPa)
Adjustment	• 10–30 mmHg (1.5–4 kPa): 2 mmHg (0.5 kPa) • >30 mmHg (>4 kPa): 5 mmHg (1 kPa)
NBP Overpressure Settings (Not User Adjustable)	
Adult	>300 mmHg (40 kPa) >2 seconds
Pedi	>300 mmHg (40 kPa) >2 seconds
Neo	>150 mmHg (20 kPa) >2 seconds

Invasive Blood Pressure

Supports up to two pressure transducers via one connector and one Y-cable.
Complies with:
- **IEC 60601-2-34:2011**
- **EN 60601-2-34:2014**

Invasive Pressure Performance Specifications	
Measurement Range	-40–360 mmHg
Input Sensitivity	
Sensitivity	5 µV/V/mmHg (37.5 µV/V/kPa)
Adjustment range	±10%
Transducers (Compliant with ANSI/AAMI BP22)	
Load impedance	200–2000 Ω (resistive)
Output impedance	≤3000 Ω (resistive)
Frequency Response	DC to 12 Hz or 40 Hz
Zero Adjustment	
Range	±200 mmHg (±26 kPa)
Accuracy	±1 mmHg (±0.1 kPa)
Drift	<0.1 mmHg/°C (0.013 kPa/°C)
Gain Accuracy	
Accuracy	±1%
Drift	<0.05%/°C
Non-linearity and Hysteresis	Error of ≤ 0.4% FS (@CAL 200 mmHg)
Overall Accuracy (Including Transducer)	±4% of reading or ±4 mmHg (±0.5 kPa), whichever is greater
Invasive Pressure Alarm Specifications	
Pressure	
Range	-40–360 mmHg (-5.0–48 kPa)
Adjustment	• -40–50 mmHg (-5–4 kPa): 2 mmHg (0.5 kPa) • >50 mmHg (>4 kPa): 5 mmHg (1 kPa)
Delay	Maximum 12 seconds

Transducer and pressure cable should be ordered via established supplier chain in the hospital.

We suggest to order:
Edwards TrueWare PX series Single adult transducer and the pressure cable from the front end to the transducer.

Temperature

Complies with:
- **ISO 80601-2-56:2009**
- **EN ISO 80601-2-56:2012**

Temperature Performance Specifications	
Temperature	
Range (absolute)	-1–45°C (30–113°F)
Range (differential)	±46°C (±115°F)
Resolution	0.1°C (0.1°F)
Accuracy	±0.1°C (±0.2°F)
Average Time Constant	<10 seconds
Temperature Alarm Specifications	
Temperature High/Low Alarms	
Range	-1–45°C (30–113°F)
Adjustment	• -1–30°C (30–86°F), 0.5°C (1.0°F) steps • 30–45°C (86–113°F), 0.1°C (0.2°F) steps

Cardiac Output Thermodilution Specifications

Cardiac Output	
Blood Temperature Range	17–43°C (62.6–109.5°F)
Blood Temperature Accuracy (Excluding Probe)	0.1°C (0.2°F)
Injectate Temperature Range	-1–30°C (30.2–86.0°F)
Injectate Temperature Accuracy (Excluding Probe)	0.1°C (0.2°F)
Cardiac Output (Right Heart)	
C.O. Range	0.1–20 l/min
Instrument Specification (Measured Electronically)	
C.O. Instrument Accuracy	±3% or 0.1 l/min
C.O. Repeatability	±2% or 0.1 l/min

End tidal CO_2 (867040)

Complies with:
- **ISO 80601-2-55:2011**
- **EN ISO 80601-2-55:2011**

Mainstream CO_2 Performance Specifications	
CO_2	
Range	0–150 mmHg (0–20 kPa)
Accuracy	After two minutes warm-up: • For values between 0 and 40 mmHg (0 and 5,3 kPa): ±2.0 mmHg (±0.29 kPa). • For values from 41–70 mmHg (5.4–9.3 kPa): ±5% of reading. • For values from 71–100 mmHg (9.4–13.3 kPa) ±8% of reading. • For values from 101–150 mmHg (13.4–20 kPa): ±10 % of reading the specifications are valid for standard gas mixtures, balance air, fully hydrated at 35°C, Pabs = 760 mmHg (101.3 kPa), flow rate = 2 l/min
Resolution	• Numeric: 1.0 mmHg (0.1 kPa) • Wave: 0.1 mmHg (0.01 kPa)
Stability: Short-term Drift Long-term Drift	±0.8 mmHg (0.11 kPa) over four hours Accuracy specification is maintained over a 120-hour period
Warm-up Time	Two minutes with CO_2 transducer attached for full accuracy specification
Response Time	<60 ms (with adult or infant reusable or disposable adapter)
Sidestream CO_2 Performance Specifications	
CO_2	
Range	0–150 mmHg (0–20 kPa)
Accuracy	After two minutes warm-up: • For values between 0 and 40 mmHg (0 and 5,3 kPa): ±2.0 mmHg (±0.29 kPa). • For values from 41–70 mmHg (5.4–9.3 kPa): ±5% of reading. • For values from 71–100 mmHg (9.4–13.3 kPa) ±8% of reading. • For values from 101–150 mmHg (13.4–20 kPa): ±10% of reading. At respiration rates above 80 rpm, all ranges are ±12% of reading. The specifications are valid for gas mixtures of CO_2, balance N2, dry gas at 760 mmHg (101.3 kPa) within specified operating temperature range.
Resolution	• Numeric: 1.0 mmHg (0.1 kPa) • Wave: 0.1 mmHg (0.01 kPa)
Stability: Short-term Drift Long-term Drift	±0.8 mmHg (0.11 kPa) over four hours Accuracy specification is maintained over a 120-hour period
Warm-up Time	Two minutes with CO_2 sensor attached for full accuracy specification
Sample Flow Rate	50 ±10 ml/minute
Total System Response Time	3 seconds
CO_2 Alarm Specifications	
$EtCO_2$ High	
Range	20–95 mmHg (2–13 kPa)
Adjustment	1 mmHg (0.1 kPa) steps
Delay	<14 seconds
$EtCO_2$ Low	
Range	10–90 mmHg (1–12 kPa)
Adjustment	1 mmHg (0.1 kPa) steps
Delay	<14 seconds

Microstream CO_2 (867041)

Performance Specifications	
Measurement Range	0–150 mmHg (0–20.0 kPa) or 20% CO_2, whichever is lower
Accuracy (After 5 minutes warmup)	These specifi cations are valid for: • 21% O_2 and balance N2 • Up to 35° C ambient temperature • Up to 60 rpm for adults and 100 rpm for neonates • Values between 0 and 40 mmHg (0 and 5,3 kPa): ±2.2 mmHg ±0.30 kPa) • Values above 40 mmHg (5.3 kPa): ± (5% + 0.08% per mmHg above 40 mmHg) of reading
Resolution	• Numeric: 1 mmHg (0.1 kPa) • Wave: 0.1 mmHg (0.02 kPa)
Warm-up Time	Up to 5 minutes, with an accuracy of ±4 mmHg or ± 12% of reading, whichever is greater
Sample Flow Rate	50 + 15 ml/min - 7.5 ml/min
Rise Time	
Step Response 10–90%	• 190 ms for neonatal patients (measured with M1923A FilterLine H Set Infant/Neonatal) • 240 ms for adult patients (measured with M1921A FilterLine H Set Adult/ Pediatric)
Gas Sampling Delay Time	
Sampling delay time from an input step change at the airway adapter until the measured signal changes by 10% of the input step.	
2 m Sample Lines	Maximum 3 seconds
4 m Sample Lines	Maximum 6 seconds
Total System Response Time	Sum of Gas Sampling Delay Time and Rise Time
Endtidal CO_2 (et CO_2) Alarm Limits	
Range	• $EtCO_2$ low: 10–90 mmHg (1–12 kPa) • $EtCO_2$ high: 20–95 mmHg (2–13 kPa)
Adjustments	1 mmHg (0.1 kPa) steps
CO_2 Alarm Delay	<14 seconds (excluding Total System Response Time)

Philips FAST SpO_2 (867030 SP1)

Complies with:
- **ISO 80601-2-61:2011**
- **EN ISO 80601-2-61:2011**

Philips FAST SpO_2 Performance Specifications	
Range and Resolution	
Range	0–100%
Resolution	1%
Perf	
Range	0.02–30.0
Resolution	0.1, 0.01 for small values
Pulse	
Range	30–300 bpm
Accuracy	±2% or 1 bpm, whichever is greater
Resolution	1 bpm

Nellcor OxiMax SpO_2 (867030 SP6)

Complies with:
- **ISO 80601-2-61:2011**
- **EN ISO 80601-2-61:2011**

Pulse Oximetry Performance Specifications	
SpO_2	
Measurement range	1–100%
Resolution	1%
Accuracy	For information about accuracy see Philips 867030 Technical Data Sheet
Low perfusion accuracy[a]	2% (70–100%)
Pulse	
Range	25–300 bpm
Resolution	1 bpm
Accuracy	±3 bpm (20–250 bpm)

[a] Specification applies to the performance of the device. Reading accuracy in the presence of low perfusion (detected IR pulse modulation amplitude 0.03–1.5%) was validated using signals supplied by a patient simulator. SpO_2 and pulse rate values were varied across the monitoring range over a range of weak signal conditions and compared to the known true saturation and pulse rate of the input signals.

Masimo rainbow SET SpO_2 (867030 SP5)

Complies with:
- **ISO 80601-2-61:2011**
- **EN ISO 80601-2-61:2011**

Measurement	Accuracy
SpO_2, no motion	• 60–80 ±3%, Adult/pedi/infant • 70–100 ±2%, Adult/pedi/infant, ±3% Neo
Measurement Range and Resolution	
SpO_2	
Range	0–100%
Resolution	1%
Pulse	
Range	25-240 bpm
Resolution	1 bpm

For more information on Philips IntelliVue X3 (867030), measurement extensions (867039, 867040, 867041), and Dock (867043), refer to the separate technical data sheets.

Patient cables, sensors and Accessories
for Philips Hemo system

Category	Name	Philips ID old P/N
ECG	CBL 5+5: 10 lead ECG trunk cable, AAMI/IEC, 2.7m	M1949A
	CBL 5 lead ECG trunk, AAMI/IEC, 2.7m	M1668A
	CBL 5 leadset, grabber, chest, AAMI/ICU	M1976A
	CBL 5 leadset, grabber, limb, AAMI/ICU	M1968A
	CBL 5 leadset, grabber, chest, IEC/ICU	M1978A
	CBL 5 leadset, grabber, limb IEC/ICU	M1971A
	Disposable radiolucent leads IEC	989803156271
	Disposable radiolucent leads AAMI	989803156261
SpO_2	CBL SpO_2 9-pin D-sub adapter 1.1 m (8-pin)	M1943A
	Reusable clip adult SpO_2 sensor	M1196A
	Disposable adult/pedi SpO_2 sensor	M1131A
	Infant disposable SpO_2 sensor	M1132A
	Neo / infant / adult disposable SpO_2 sensor	M1133A
	Wristband	M1627A
NIBP (NBP)	Reusable NIBP Comfort Cuff assortment	M1579A
	NIBP Hose	M1599B
	Reusable NIBP Comfort Cuff Adult Long Kit - 3 sizes	M1579XL
	Reusable NIBP Comfort Cuff, infant	M1571A
	Reusable NIBP Comfort Cuff, pediatric	M1572A
	Reusable NIBP Comfort Cuff, small adult	M1573A
	Reusable NIBP Comfort Cuff, small adult XL	M1573XL
	Reusable NIBP Comfort Cuff, adult	M1574A
	Reusable NIBP Comfort Cuff, adult XL	M1574XL
	Reusable NIBP Comfort Cuff, large adult	M1575A
	Reusable NIBP Comfort Cuff, large adult XL	M1575XL
	Reusable NIBP Comfort Cuff, thigh	M1576A
	Reusable NIBP Comfort Cuff assortment, smaller sizes (infant, pediatric, small adult, adult)	M1577A
	Reusable NIBP Comfort Cuff assortment, larger sizes (small adult, adult, large adult, thigh)	M1578A
CO	Ice bath temperature probe	23002A
	Cardiac output cable, 4.8 m	M1643A
	CO-Set injectate temp probe, 0.5 m	23001A
Temp	Skin surface temperature probe	21078A
	Gobi reusable skin probe	989803203581

Respironics $etCO_2$ Capnostat 5 Mainstream intubated	Mainstream CO_2 sensor	M2501A
	Airway Adapter Adult/Pediatric Reusable Use with ET tube > 4mm	M2513A
	Airway Adapter Infant Reusable Use with ET tube < 4mm Deadspace < 1cc	M2516A
	Single patient use adult airway adapter	M2533A
	Single patient use infant airway adapter	M2536A
	Gas cylinder regulator	M2505A
	GAS Verification gas	M2506A
Respironics Lo-Flo $etCO_2$ Sidestream non-intubated	Sidestream CO_2 sensor	M2741A
	CO_2 nasal cannula - adult	M2744A
	CO_2 nasal cannula - pediatric	M2745A
	CO_2 nasal cannula - infant	M2746A
	CO_2 /O_2 nasal cannula - adult	M2750A
	CO_2 /O_2 nasal cannula - pediatric	M2751A
	CO_2 oral-nasal cannula - adult	M2756A
	CO_2 oral-nasal cannula - pediatric	M2757A
	CO_2 /O_2 oral-nasal cannula - adult	M2760A
	CO_2/O_2 nasal cannula - pediatric	M2761A
	Airway Adapter Set - ET > 4.0 mm	M2768A
	Airway Adapter Set H - ET > 4.0 mm	M2772A
	Airway Adapter Set H - ET > 4.0 mm	M2773A
	Airway Adapter Set ET > 4.0 mm	989803144531
	$EtCO_2$ /O_2 Nasal Cannula - Infant/ Neonate	989803144471
	Straight Sample Line, non-humidified	M2776A
	Straight Sample Line H, humidified	M2777A
	Straight airway adapter. Single patient use	M1612A
	Reusable Nafion sample tube	13901A
	Elbow airway adapter. Single patient use	13902A
	Bacteria filter (0.45 micron). Single patient use	13904A
	Hybrid Nafion polyethylene sample tube. Single patient use Nafion length: 6 ft (1.8m) Polyethylene length: 9 ft (2.7m)	13905A
CO_2 Microstream intubated and non-intubated	FilterLine Set, Adult/Pedi, Intubated	M1920A
	FilterLine H Set, Adult/Pedi, Intubated	M1921A
	FilterLine H Set, Infant/Neonatal, Intubated	M1923A
	FilterLine® Set Long, Adult/Pediatric	989803160241
	FilterLine H Set Long, Adult/Pediatric	989803160251
	FilterLine H Set Long, Infant/Neonatal	989803160261
	VitaLine™ H Set, Adult/Pediatric	989803159571
	VitaLine™ H Set, Infant/Neonatal	989803159581
	Smart CapnoLine® O_2 Pediatric	M2520A
	Smart CapnoLine® O_2 Adult/Intermediate	M2522A
	Smart CapnoLine® Pediatric	M2524A

CO_2 Microstream intubated and non-intubated	Smart CapnoLine® Adult/Intermediate	M2526A
	Smart CapnoLine® O_2 Pediatric Long	989803160271
	Smart CapnoLine® O_2 Plus Adult Long	989803160281
	Smart CapnoLine® Plus Adult Long	989803160301
	CapnoLine® H O_2 Adult	M4680A
	CapnoLine® H O_2 Pediatric	M4681A
	NIV Adult	M4686A
	NIV Pediatric	M4687A
	CapnoLine® H Adult	M4689A
	CapnoLine® H Infant/Neonatal	M4691A
	Smart CapnoLine® H O_2 Adult	989803177951
	Smart CapnoLine® H O_2 Adult Long	989803177961
	Smart CapnoLine® H O_2 Pediatric	989803177971
	Smart CapnoLine® H O_2 Pediatric Long	989803177981
	CapnoLine® H O_2 Infant/Neonatal	989803178001
	CapnoLine® H Infant/Neonatal Long	989803178011
	Nasal FilterLine® Infant/Neonatal	989803178021
	Smart CapnoLine® Guard	989803178031
	Smart CapnoLine® Guard O_2	989803178041
	Smart CapnoLine® Guard O_2 Long	989803178051
	Hook and Loop Strap	989803178071
	Nasal FilterLine® O_2 Adult	989803179101
	Nasal FilterLine® O_2 Adult Long	989803179111
	Nasal FilterLine® O_2 Pediatric	989803179121
	Calibration Regulator	M2267A
	TRADE COMPLIANT: FILTERLINE, ADULT/PED	989803182911
	TRADE COMPLIANT:FILTERLINE H, ADULT/PED	989803182921
	TRADE COMPLIANT:FILTERLINE H, INFANT/NEO	989803182931
	TRADE COMPLIANT:VITALINEH SET, ADULT/PED	989803182941
	TRADE COMPLIANT:SMART CAPNOLINE O_2 PED	989803182951
	TRADE COMPLIANT:SMART CAPNOLINE O_2 ADULT	989803182961
	TRADE COMPLIANT:SMARTCAPNOLINEH O_2 ADULT	989803182971
	TRADE COMPLIANT:SMARTCAPNOLINEO_2,ADULT4M	989803182981
	TRADE COMPLIANT:SMART CAPNOLINE GUARD O_2	989803182991
	TRADE COMPLIANT:SMARTCAPNOLINEGUARDO_2 4M	989803183001
	TRADE COMPLIANT:CAPNOLINE H O_2 ADULT	989803183071
Other	Patient cable organizer	M2281A

For more information about s complete set of the supplies and accessories, refer to the separate “Philips IntelliVue Accessories” Technical Data Sheet

Workstation specification

Control room workstatioin:
8 GB RAM
Intel Core i5 8500 6C CPU
HDD 500GB
HDD 1TB (Standalone only)
NVIDIA Quadro P400 2GB

Exam room workstation:
4 GB RAM
Intel Core i5-6300U
HDD 500GB

Displays:
Control room display: 1920x1200 24” or 1920x1080 24”
Exam Room displays 1280x1024 19” or 1920x1080 27”

Size of displayed ECG waves:
To ensure that the size of ECG waves on the attached displays are within 10% of the size indicated by the Philips Hemodynamic Application, the pixel density of the display should be 89 +/- 10% dpi (i.e. the dot size should be 0.285 +/- 10% mm).

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