Solutions designed for the demands of perioperative care

Philips for Anesthesia Care

PHILIPS

Commitment to excellence along the perioperative continuum

With focused technologies that acquire, integrate, and present information as it's required throughout the perioperative process, Philips is delivering on a commitment to address the clinical, business, and technical requirements of anesthesia care teams. Anesthesia professionals depend on our solutions in hospital-based operating rooms, surgical centers, and low-acuity ambulatory surgery and procedural sedation settings around the world. With innovative solutions designed specifically for the demands of perioperative care, Philips is committed to delivering technologies that help clinicians deliver care safely and efficiently in a wide range of settings.

- Philips **open systems approach** means our technologies integrate with the industry's widest array of anesthesia machines, ventilators, and other third-party stand-alone monitoring devices, enabling you to build the best solution for your needs.

- Philips offers a line of **patient monitors** to suit almost every environment where anesthesia is delivered. All are durable, designed for ease of use, and support numerous custom configurations.

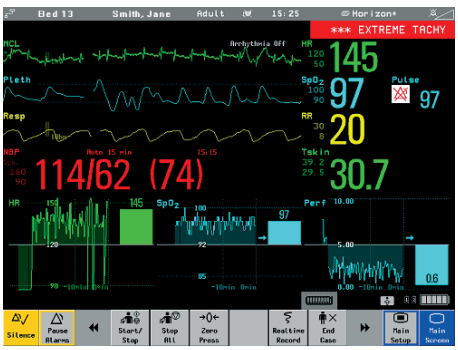
- Philips provides a wide range of **clinical measurements** for anesthesia, including EEG, BIS®, anesthetic gases, spirometry, MAC, and capnography. Our VueLink module provides access to a variety of third-party specialty measurements, including TOF-Watch® SX neuromuscular transmission.

- Our **perioperative anesthesia information system** automates record-keeping to thoroughly and clearly document patients' status, capture costs, and facilitate data analysis for workflow management. The system contributes to patient safety, operational efficiency, and risk management.

From low acuity to the most challenging procedures

Philips offers monitors for a variety of environments – from freestanding ambulatory surgical centers to hospital-based anesthesia departments that handle the most critical cases. Our systems support you and your team with clinical features such as event surveillance, automated information management with Philips CompuRecord anesthesia information system, and clinical measurements to assess patient status and inform therapy decisions from transport through pre-op, surgery, and post-anesthesia.

We pride ourselves on intuitive user interfaces and open systems design. The IntelliVue portfolio of networked monitors all share a common user interface, outstanding industrial design, and Multi-Measurement Servers to provide data continuity between monitors and throughout the patient's stay.



IntelliVue's split-screen display combines real-time waves and numerics with rolling screen trends (anywhere from 30 min. - 12 hrs.). **Horizon trends** provide a mind's eye view of patient status by displaying patient status in relation to a chosen baseline.

Portable **IntelliVue MP20 and MP30** monitors are ideal for transport into the OR and for pre-op and recovery. With up to six waveforms*, they are also well suited to lower acuity procedures.

Flexible **IntelliVue MP40 and MP50** monitors are designed for ambulatory surgery and smaller scale operating rooms. They can display up to six waveforms and can support portal technology.

Ergonomically designed for OR environments, **IntelliVue MP60 and MP70** accommodate six to eight waveforms in a streamlined system, and also support portal technology.

The **IntelliVue MP80**** **and MP90** are designed for the highest acuity care. The MP90 features up to three independent displays.

* Six waveforms not available in the US.

** Not available in the US.

Supporting system integration and customer choice

Addressing the need for mechanical, electrical, and human interface integration in the operating room, Philips supports an open systems approach where patient monitors can seamlessly be configured with a wide variety of anesthesia machines, third-party external devices, information management, and clinical decision support systems. Upgrade or replace individual components as needed for an anesthesia workplace that can evolve over time. Philips monitors are tested and available for most leading anesthesia machines and come with a wide selection of mounting options. What's more, the VueLink module enables seamless data integration, providing information from third-party devices on the monitoring screen for a complete patient overview at a glance.

Philips systems integrate with the clinician's choice of anesthesia machine to offer levels of specialization and customization required in the operating room. The anesthesia machines featured here represent a small sampling of the systems that work with Philips patient monitors and clinical measurements. The **Datex-Ohmeda Aestiva/5**® is shown here integrated with a dual display IntelliVue MP90, Philips Anesthetic Gas Module, and a variety of clinical measurements.

Device Link II collects and integrates data from a variety of bedside devices such as ventilators, infusion pumps, anesthesia machines, and others – for entry into a clinical information system.

VueLink collects and integrates data from anesthesia machines, and other devices such as Organon's TOF-Watch SX® monitor, Novametrix NICO$_2$® and CO$_2$SMO® Plus – for entry into the patient monitor.

Datex-Ohmeda S/5™ Aespire with IntelliVue MP50 and the Anesthetic Gas Module.

Dräger Primus™ is shown here with the IntelliVue MP70 plus a Flexible Module Server.

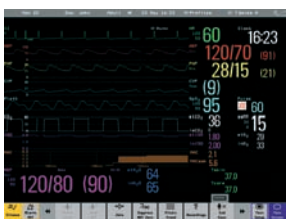
Dräger Fabius GS™ integrates the IntelliVue MP50 and IntelliVue G5 Gas Module plus an extra display for CompuRecord, for example.

A host of measurements to inform therapy decisions

A variety of anesthesia-specific measurements and event surveillance provides the perioperative team with a cogent overview of patient status. Philips is committed to providing best-in-class standard clinical measurements as well as innovative measurements to support clinicians' decisions at the patient's side. We continue to build on our proven measurement expertise by investing heavily in research, development, and clinical validation of innovative parameters and algorithms for the OR such as 12-lead ECG and the ST/AR algorithm. We work with partners to integrate leading-edge measurements and technologies into our patient monitors such as Aspect Medical Systems' BIS® and Oridion's Microstream® CO_2. Philips VueLink module broadens OR capabilities by interfacing to more than 100 third-party specialty measurement devices, such as Organon's TOF-Watch® SX neuromuscular transmission monitor, and leading anesthesia machines, gas analyzers, and ventilators.

Philips offers three Multi-Measurement Server Extensions: Microstream CO_2, capnography, and hemodynamic parameters, including cardiac output.

Individual modules fit within the Flexible Module Server and are interoperable among most Philips patient monitors. Modularity provides flexibility to configure measurements for patient and department needs. The **Multi-Measurement Server** contains the parameters most consistently required during surgery in a single, space-saving unit. It stores up to eight hours of data, detaches for patient transport before or after surgery, reconnects to all other IntelliVue monitors, then uploads transport data.



MAC values displayed on the IntelliVue patient monitor provide anesthesia decision support.

The **IntelliVue G1 and G5** provide gas monitoring functionalities to improve patient safety and care during anesthesia. MAC values are also calculated.

Capnography measurements allow continuous assessment of patients' respiratory status in the operating suite and during recovery.

BIS® (Bispectral Index) enables more effective monitoring of the effects of anesthetics on the brain, contributing to optimal dosing, fewer side effects, and quicker recovery.

Philips **SpO_2** offering includes a wide selection of SpO_2 sensors, modules, and technologies: Philips FAST-SpO_2, Masimo SET®, and Nellcor® OxiMax®-compatible*.

* Not available in all countries.

Clinical decision support

Whether building decision support features directly into our monitors and information systems or providing access to an array of clinical applications on our IntelliVue patient monitors, Philips is committed to helping anesthesia care teams to reduce the likelihood of errors and to reinforce best practices.

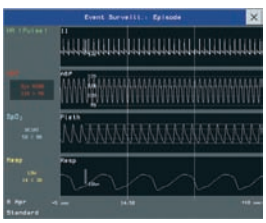
With Advanced Event Surveillance on IntelliVue Monitors, clinicians can use up to four parameters to identify and document clinically significant patient episodes for review.

Philips portal technology makes decision support applications from remote sources available on the monitor display.

On-Line Electronic Help (OLEH) is a reference tool that provides access to anesthesia-related information such as emergency algorithms and transfusion medicine. It was developed by the European Society of Anaesthesiologists.

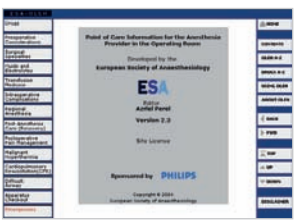
Decision support features, such as drug cost comparisons, are also embedded in the CompuRecord anesthesia information management system.

ST Map collects ST values and trends derived from the vertical (limb leads) and horizontal (chest leads) planes into an integrated display.



Advanced Event Surveillance records up to four parameters as real-time waveforms (15 sec.), high-resolution trends (4 min.), or basic trends (20 min.)

Horizon Trending focuses on deviations from a baseline the clinician chooses.



OLEH is an interactive, electronic reference that provides instant access to reliable information on drugs, algorithms, and protocols.

With **portal technology**, the anesthesia team can access web-enabled applications directly on the monitor display.

Ambulatory surgery and procedural sedation

Philips offers a wide range of technologies and services for surgical centers and ambulatory surgery departments – freestanding or in-hospital.

Our networked IntelliVue MP20 and MP30, or the standalone SureSigns monitors provide extensive capability in a compact package to match the unique needs of lower acuity environments.

Philips SureSigns provides versatile, essential monitoring, from spot-checking vital signs to continuous monitoring during sedation. In addition, the SureSigns VM4, VM6, VM8, VS1, and C1 monitors are packaged and ready for immediate use with accessories included. Philips also offers a family of resuscitation products that are ready for use in surgical centers.

The Philips **Professional and CUSTOMerCARE Services team** helps you derive maximum value from your anesthesia-related solutions with comprehensive support designed to contribute to improved patient outcomes and reduced overall costs of healthcare delivery. CUSTOMerCARE services include clinical education and training, biomedical training, financial services, business consulting, implementation, and integration.

IntelliVue MP20 and MP30 and the G1 and G5* Anesthetic Gas Modules are a powerful combination for ambulatory surgery and procedural sedation.

BIS measurement provides depth of consciousness and sedation monitoring for ambulatory surgery and procedural sedation. The **BISx Power Link** connects directly to the IntelliVue MP20 and MP30.

The **SureSigns VM Series** provides vital signs to continuous monitoring during procedural sedation and when capnography is required.

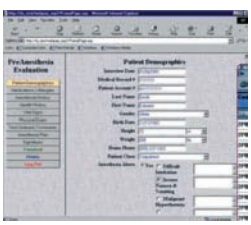
The portable **HeartStart MRx** monitor/defibrillator combines reliable defibrillation with ST/AR arrhythmia detection, 12-lead diagnostic ECG, non-invasive blood pressure, and Microstream CO_2.

* IntelliVue G5 is only supported on the MP20 and MP30 in the USA and Canada.

Information presentation for decision making

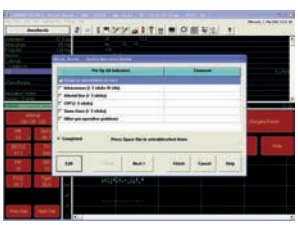
Philips CompuRecord perioperative information management system boasts an unmatched 20-year track record of delivering pre-, intra-, and post-operative clinical and administrative functionality. CompuRecord's suite of interrelated modules such as EZRecord Case Browser and EZRecovery are each designed to provide the most efficient user interface and information for the task at hand. Overseeing operating rooms and patient progress, CompuRecord also helps anesthesia teams increase efficiencies and reduce scheduling delays. It contributes to improved capture rates of professional and pharmacy charges, charge reconciliation, and regulatory compliance. CompuRecord's rich database is also a powerful tool for research and quality and process improvements.

With the goal of developing powerful tools that help care teams make the best use of clinical information, Philips has made a commitment to meet the growing need for **information management in clinical environments**.



CompuRecord's **Pre-operative** features include pre-anesthesia patient evaluation forms and patient readiness reports that can help minimize delays and cancellations.

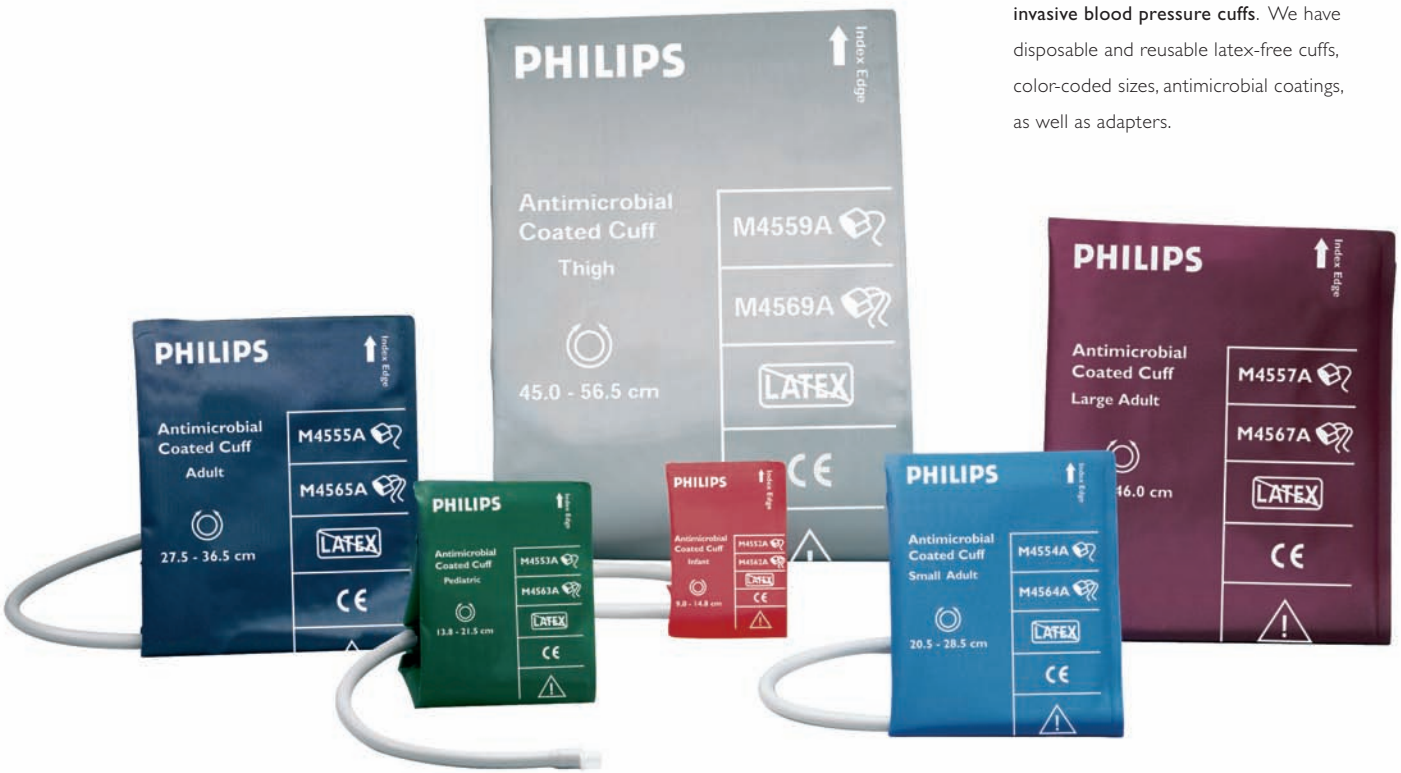
Intraoperative record captures cost and quality data. **Post-operative** functionality enables closing of cases and documents patient care in the recovery room.



Risk management, quality, and other administrative tasks are simplified with CompuRecord features, including Management Information Services, Quality Assurance Review, and Research.

Supplying value in the OR

Philips provides a broad line of supplies to complement our perioperative monitors, measurements, and analysis technologies. Our high-quality, cost-effective supplies portfolio includes SpO_2 sensors, non-invasive blood pressure cuffs, and a wide range of gas monitoring supplies, including anesthetic, sidestream, mainstream, microstream, and transcutaneous gas monitoring supplies.



Philips offers a wide range of **non-invasive blood pressure cuffs**. We have disposable and reusable latex-free cuffs, color-coded sizes, antimicrobial coatings, as well as adapters.

FilterLine® supplies for Microstream™ CO_2 monitoring with non-intubated or intubated patients. Capnography supplies are available for a variety of patient types.

Philips offers high-quality CO_2 monitoring supplies, including reusable and **single-patient-use airway adapters**, for use with a **Mainstream CO_2** sensor.

Philips offers gas monitoring supplies that meet specific clinical and circuitry requirements of the OR, such as the **multi-use, disposable water trap**.

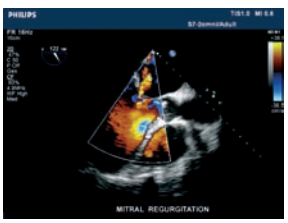
Customer choice defines our **SpO_2** sensor offerings. We provide disposable and reusable sensors for a variety of patient types and applications.

Digital imaging technologies

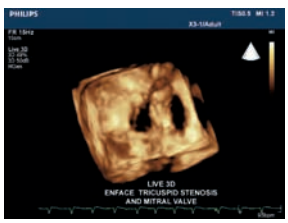
Philips supports anesthesia and surgical care teams across the perioperative continuum with digital imaging technologies that complement our monitoring, measurement, and clinical decision support solutions. Our mobile C-arms and interventional x-ray imaging systems, transesophageal echocardiography, and other imaging technologies all are designed to increase diagnostic confidence for clinicians and comfort for patients.

The **BV Pulsera** is designed to provide exceptionally clear images at the lowest possible dose. Extended rotation capability combines with a 23 cm (9-inch) or 30.5 cm (12-inch) image intensifier to handle the most advanced interventions, including cardiac procedures, bolus chasing, and abdominal aortic aneurysm repair.

The **S7-2omni and S7-3t** transducers' unique features include superb harmonic imaging and a balanced, ergonomic design.



Built-in electrocautery suppression on the **S7-2omni** transducer virtually eliminates the unavoidable noise artifact created in the OR for better monitoring during cardiac surgery.



Live 3D Echo – real-time 3D cardiac ultrasound imaging – is dramatically expanding the role of ultrasound in pre-surgical planning.

The **iE33 and HD11 XE** systems offer advanced imaging performance for surgical teams.

Philips Medical Systems is part of Royal Philips Electronics

Interested?

Would you like to know more about our imaginative products? Please do not hesitate to contact us. We would be glad to hear from you.

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Printed in The Netherlands.
4522 962 10241/862 * MAY 2006