Bispectral Index (BIS)

Monitoring level of consciousness with the compact BISx Power Link™

Philips Bispectral Index (BIS®) measurement uses Aspect Medical Systems' XP platform technology. It provides depth of consciousness and sedation monitoring for use in the OR, ICU, and other clinical settings. A sensor on the patients forehead translates brain electrical activity into a single BIS value, ranging from 0 to 100, with 100 signifying full awareness and 0 indicating no brain activity.

The Philips BIS module provides numerics, graphic trends, and high-resolution trends for the following values:
- Bispectral Index®
- Electromyographic strength (EMG)
- Signal quality indicator
- Suppression ratio
- EEG waveform
- Total power
- Spectral Edge Frequency (SEF)
- Burst (available only via Extend sensors)

BIS measurements are resistant to artifact from electrocautery devices. The algorithm detects and filters interference from EMG.

Benefits for anesthesia and critical care
BIS measurements can help clinicians formulate the precise type and optimal dosages of anesthetic or sedative medication for each patient.

BIS monitoring is most widely used in the OR to help:
- Regulate anesthetic drug use
- Decrease the incidence of post-operative side effects such as nausea and vomiting
- Reduce length of stay in the PACU (recovery room)
- Prevent intraoperative awareness

BIS monitoring can also be useful during outpatient surgery and conscious sedation.
In the ICU, BIS monitoring has been shown to reduce recall of unpleasant experiences and provide objective sedation assessment during:

- Mechanical ventilation
- Neuromuscular blockade
- Barbiturate coma
- Bedside procedures

Well managed sedation levels in the ICU can also aid in ventilator weaning.

**Greater awareness of patient-specific reactions to anesthesia and sedation**

Patients respond differently to anesthesia, and BIS monitoring can be particularly valuable in patients whose responses are least predictable, including:

- Geriatric and pediatric patients
- Frail patients
- Patients undergoing lengthy surgeries
- Patients with conditions known to affect responsiveness to anesthesia

**BISx Power Link works with a range of sensors**

The plug-and-play BISx Power Link™ is compact and portable. It has an integrated clamp for quick and easy mounting and connects seamlessly by cable to the Philips BIS module. No extra mounts are needed. BIS sensors are tailored to the special requirements of ICU, OR, and pediatric patients.

### BIS sensors:

- **M1034Ax BISx Power Link™**
- **M1034AX #A01 BISx Power Link™ plus BIS Module**
- **M1034AX #A02 BISx Power Link™ plus BIS interface**
- **M1034A BIS module only**
- **M8001A #J16 BIS interface board for MP20**
- **M8002A #J16 BIS interface board for MP30**

**Quatro Sensor** has four electrodes that provide full BIS XP performance in the OR, ICU, and other clinical settings.

**Extend Sensor** has four electrodes that provide full BIS XP performance, especially designed for the ICU (currently available in the US only).

**Pediatric Sensor** has four electrodes suited to the small size of pediatric patients.

**Semi Reusable Sensor (SRS) Kit** consists of 100 disposable sensors and a cable that is reusable up to 100 times

**Philips Commitment to Measurement Technologies**

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.

- Maintaining and advancing the performance of existing, widely used standard-of-care measurements
- Investing heavily in research, development, and clinical validation of new, innovative parameters and algorithms
- Working with strategic partners to integrate next-generation measurements and technologies
- Providing interfaces to more than 100 third-party specialty measurement devices through the Philips VueLink module

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