

**BeneView T5/T5 OR
BeneView T8
BeneView T9/T9 OR**

Patient Monitor

Operator's Manual



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WARNING

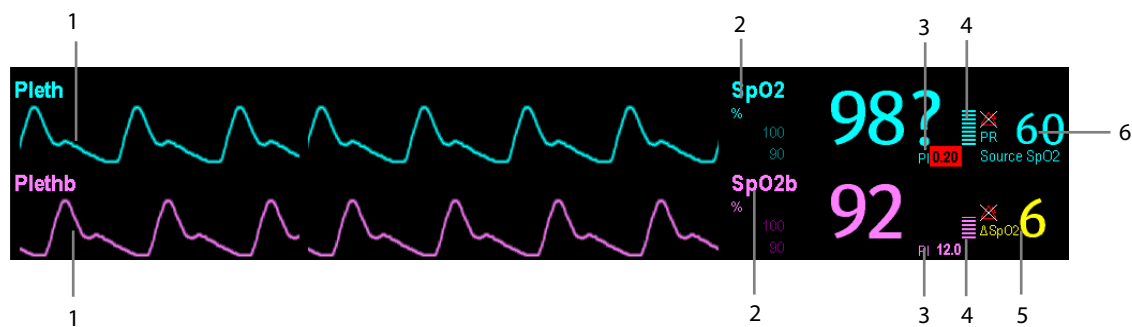
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- **Federal Law (USA) restricts this device to sale by or on the order of a physician.**
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12 Monitoring SpO₂

12.1 Introduction

SpO₂ monitoring is a non-invasive technique used to measure the amount of oxygenated haemoglobin and pulse rate by measuring the absorption of selected wavelengths of light. The light generated in the probe passes through the tissue and is converted into electrical signals by the photodetector in the probe. The SpO₂ module processes the electrical signal and displays a waveform and digital values for SpO₂ and pulse rate.

This device is calibrated to display functional oxygen saturation.



1. Pleth waveform (Pleth/Plethb): visual indication of patient's pulse. The waveform is not normalized.
2. Oxygen saturation of arterial blood (SpO₂/SpO_{2b}): percentage of oxygenated hemoglobin in relation to the sum of oxyhemoglobin and deoxyhemoglobin. SpO₂ measurement is obtained through the MPM module, and SpO_{2b} measurement is obtained through the SpO₂ module.
3. Perfusion index (PI): gives the numerical value for the pulsatile portion of the measured signal caused by arterial pulsation. PI is an indicator of the pulsatile strength. You can also use it to assess the quality of SpO₂ measurement.
 - ◆ Above 1 is optimal
 - ◆ Between 0.3 and 1 is acceptable
 - ◆ Below 0.3 indicates low perfusion; When PI is below 0.3, a question mark (?) is displayed to the right of the SpO₂ value, indicating that the SpO₂ value may be inaccurate. Reposition the SpO₂ sensor or find a better site. If low perfusion persists, choose another method to measure oxygen saturation if possible.
4. Perfusion indicator: the pulsatile portion of the measured signal caused by arterial pulsation.
5. SpO₂ difference (Δ SpO₂): $\Delta \text{SpO}_2 = | \text{SpO}_2 - \text{SpO}_{2b} |$.
6. Pulse rate (derived from pleth wave): detected pulsations per minute.

In the case that you need to measure SpO₂ and SpO_{2b}, select the same type of modules. Otherwise, the SpO₂ module for SpO_{2b} is closed automatically. For example, if MPM module configuring Mindray SpO₂ and Masimo SpO₂ module are applied simultaneously, Masimo SpO₂ module is closed automatically.