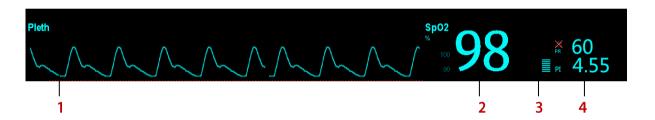


# SpO<sub>2</sub> Monitoring Quick Guide

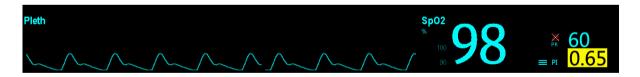
- 1. **Plethwaveform** (Pleth): visual indication of patient's pulse
- 2. **Oxygen saturation of arterial blood**(SpO<sub>2</sub>): percentage of oxygenated haemoglobin in relation to the sum of oxyhaemoglobin and deoxyhaemoglobin
- 3. **Perfusion Indicator**: an assessment of the pulsatile strength
- 4. **Perfusion Index**(PI): An indicator of the arterial pulsatile strength. The quality of the SpO<sub>2</sub> measurement can be assessed using the PI

#### Perfusion Index above 1.0 is optimal



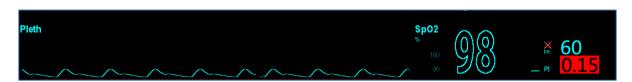
### Perfusion Index 0.3-1.0 is acceptable

#### Perfusion Index highlighted in yellow to alert user



## Perfusion Index below 0.3 indicates low perfusion

Perfusion Index highlighted in red and the SpO₂ numeric becomes hollow to alert user





Select the correct sensor for the application site

Apply sensor according to manufacturer's instructions

Inspect the sensor site every two hours

Change the application site every four hours

Inspect and change sensor site more frequently if patients have poor peripheral blood circulation or sensitive skin, if skin quality changes or optimal sensor positioning is no longer achieved

The SpO<sub>2</sub> value displayed on the monitor screen is the average of data collected

# Factors influencing the accuracy of measurement

Physical Movement (patient and imposed motion)	Ambient light	Inappropriate selection of sensor and sensor
Electromagnetic interference, such as MRI environment	Diagnostic testing	Dysfunctional haemoglobin, such as carboxyhaemoglobin (COHb) & methaemoglobin (MetHb)
Presence of certain dyes, such as methylene and indigo carmine	Low perfusion	Drop of arterial blood flow to immeasurable level caused by shock, anaemia, low temperature & vasoconstriction for example
Electrosurgical units	Nail polish	Multiple piercings of ear lobes

## Examples of SpO<sub>2</sub> Sensors



## Examples of SpO<sub>2</sub> Pleth Waveforms

