PATIENT MONITORING SYSTEMS

Patient monitors are used in clinical environments (e.g., operating rooms, emergency rooms, intensive care, and increasingly, patient homes) to monitor and display the patient's vital signs, including ECG, SpO_2 (peripheral oxygen saturation), blood pressure, respiration, and temperature. Patient monitors can be standalone or multi-parameter. Honeywell sensors have been used in applications with blood pressure monitoring, glucose monitoring, respiratory monitoring, and temperature monitoring.

Solutions for Patient Monitoring

- Airflow Sensors
- Humidity & Temperature Sensors
- Oxygen Sensors
- Pressure Sensors and Transducers
- Temperature Sensors
- SpO_2 Sensors

SENSORS USED IN PATIENT MONITORING

Respiratory monitoring displays critical indices including capnography, which monitors the concentration or partial pressure of CO_2 in respiratory gases, and spirometers, which measure lung capacity

Temperature monitoring consists of monitoring patient temperature.

Blood pressure monitoring may be measured through either an inserted pressure transducer or non-invasively through a blood pressure cuff (NIBP).

Glucose monitoring measures the glucose level in the interstitial fluid. Continuous monitoring allows examination of how the blood glucose level reacts to insulin, exercise, food, and other factors.

AIRFLOW SENSORS:

- Measures patient breathing (inhalation/exhalation volumes) to ensure the patient is breathing correctly by sensing the air flow in the respiratory path

HUMIDITY & TEMPERATURE SENSORS:

- Measure and monitor ambient temperature and humidity either in the hospital room or in the patient's breath/respiratory path

OXYGEN SENSORS:

- Measure oxygen concentration level of the air mixture delivered to the patient

PRESSURE SENSORS:

- Monitor a patients breathing to detect when they inhale and exhale, also used to detect if breathing deteriorates
- Measures patient blood pressure to keep track of the patents health
- Detect when air and oxygen inlet filters are clogged and need to be replaced

TEMPERATURE SENSORS:

- Used to measure both the patient's temperature, as well as the temperature in the patient's respiratory system

SPO_2 SENSORS:

- Measure the percentage of oxygenated hemoglobin (hemoglobin containing oxygen) compared to the total amount of hemoglobin in the blood (oxygenated and non-oxygenated hemoglobin)