ABPMpro
cuff | cuffless | hybrid

CUFF OR CUFFLESS ABPM? WHY NOT BOTH?

Oscillometric blood pressure – flexible and reliable

Programmable cuff measurement intervals according to your requirements. Exclusion of artefacts by recording the cuff pressure.

Continuous, non-invasive blood pressure measurement

Systolic/diastolic blood pressure (in mmHg) – beat-to-beat, captures true maximum and minimum values.
PTT-based[1], validated according to the international ESH protocol.[2]
Capture of NBPF™ (Nocturnal Blood Pressure Fluctuations).[3]

Pulse rate

A standard integrated ECG allows continuous recording of the pulse rate – even when the cuff is not pumping.

Actigraphy & body position

Sleep-wake estimation to determine actual sleep time[4].
Correlation of blood pressure with body position.
During the day: correlation of blood pressure with physical activity.

Holter 3-channel ECG

Minimum, maximum and average heart rate. Pacemaker detection. Arrhythmia detection (with external software), increased or decreased heart rate. Stress report based on HRV.

CARDIOdiagnostics
A division of SOMNOmedics

The new **ABPMpro** combines everything we know about blood pressure measurement during sleep.

◆ Flexible adjustment from cuff-based measurement method to continuous blood pressure measurement* without cuff based on PTT[1] (pulse transit time).

◆ Continuous blood pressure measurement* (beat-to-beat) without inflating a cuff records all minima and maxima and offers maximum patient comfort thanks to non-interacting measurements.

◆ 3 routine examinations with one measurement: oscillometric and/or continuous blood pressure, internal ECG, 3-channel ECG and actigraphy.

* Requires connection of the optional 3-channel ECG and Pleth-sensor.

Datasheet ABPMpro
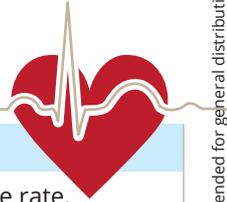
Up to 8 CHANNELS
Body position, actigraphy, pulse rate, plethysmography, 1-channel and/or 3-channel ECG, oscillometric and/or continuous blood pressure, pacemaker detection
DATA COLLECTION
16 - 24 bit signal resolution Individually adjustable sampling rate
DATA STORAGE / DATA TRANSFER
Internal data storage, Charging and data transfer via USB
SIZE (DEVICE WITHOUT THE CUFF)
100 x 75 x 24 mm
CUFF SIZES
S, M, L (18 - 46 cm arm circumference)
DISPLAY
Black/white OLED
POWER SUPPLY
Li-Ion battery (rechargeable in approx. 3 h)
SOFTWARE: ABPMpro Analyzer

SOMNOmedics uses an innovative patented algorithm to determine the blood pressure based on the PTT (Pulse Transit Time). The PTT describes the duration of the pulse wave between two points in the arterial system – in this case the time it takes for the pulse wave to travel from the heart (detected by ECG) to the blood vessels on the upper arm (detected by photoplethysmography sensor).

After a one-point calibration at the beginning of the measurement, an accurate systolic and diastolic blood pressure value can be calculated for each PTT value – during the day and at night. The capture of each pulse wave ensures continuous „beat-to-beat" recording and analysis of blood pressure values.

ESH VALIDATED

1   Patent numbers: DE 102005014048.3-35, EP 20060001181.4-1526, US 11/364174 US 2006/0217616 A1, 7374542
2   Bilo, G., Parati, G. et al., Validation of the SOMNOtouch™ NIBP non-invasive continuous blood pressure monitor according to the European Society of Hypertension International Protocol revision 2010. Blood Pressure Monitoring. 2015
3   Gehring, J., Gesche, H., Drewniok, G. et al. Nocturnal blood pressure fluctuations measured by using pulse transit time in patients with severe obstructive sleep apnea syndrome, Sleep Breath (2018) 22: 337. https://doi.org/10.1007/s11325-017-1555-9
4   Dick, R., et al., AASM standards of practice compliant validation […] Physiological measurement, 2010. 31(12): p.1623-33.

Please note: This flyer contains preliminary information. Subject to change without notice.

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