

ABPMpro

**AMBULATORY LONG-TERM
BLOOD PRESSURE MEASUREMENT**

TRADITION MEETS INNOVATION



**Traditional
Continuous**

**Oscillometric measurement
PTT-based method**



BASIC DEVICE ABPMpro Oscillometric 24-hour Blood Pressure Measurement

- ♦ **Simple application**
 - The main device slides directly on to the cuff - no tube needed
 - High patient comfort
- ♦ **Internal ECG – continuous recording of heart rate, independent of inflation process**
 - Allows for the detection of physical and psychological stress
- ♦ **Internal sensor for activity and body position**
 - Correlation of blood pressure to activity (during the day) and body position (at night)
 - Sleep-wake-estimation, precise classification of dipping / non-dipping
- ♦ **Measurement during inflation and/or deflation**
 - Back-up measurement during deflation if some artefacts occur during inflation
 - Increased information due to twice the number of measurement values
- ♦ **Graphical display of inflation/deflation process in the software**



UPGRADEABLE

3-channel ECG sensor (Holter)

- ♦ Integrated sensor for precise determination of body position (thorax)
- ♦ Impedance cardiography for determination of
 - Breathing frequency
 - Central apneas / Cheyne-Stokes breathing
 - Pre-ejection period (PEP)
- ♦ Alternatively: pacemaker detection

Plethysmography (Pleth) sensor

- ♦ Detection of pulse wave
- ♦ Pulse wave analysis (PWA)
- ♦ Detection of autonomous arousal based on the pleth signal

When using both sensors:

Continuous, non-invasive blood pressure measurement WITHOUT inflation of the cuff based on the pulse transit time (PTT)

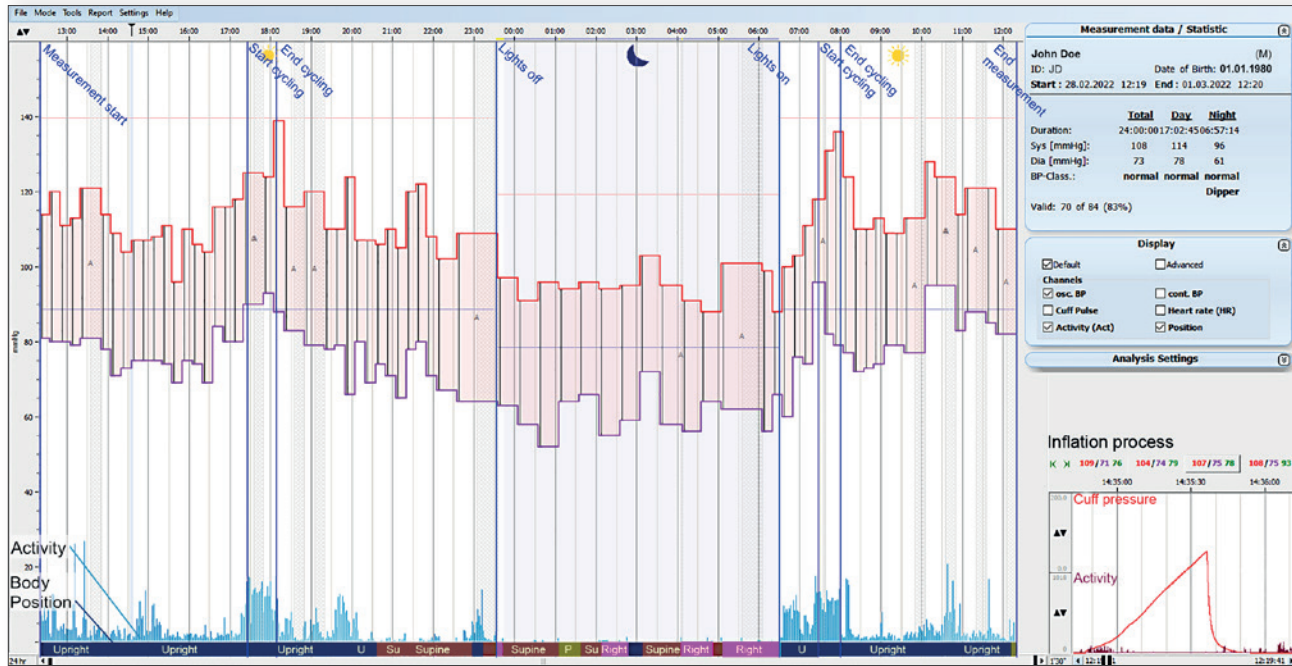
- ♦ Systolic / diastolic blood pressure values (in mmHg), beat-to-beat
- ♦ Heartbeat-precise representation of the blood pressure curve with all minima and maxima
- ♦ Detection of NBPF™ (Nocturnal Blood Pressure Fluctuations)
- ♦ No falsification of the measured values - no disturbance of sleep, no resulting blood pressure increase

Calculation of the pulse wave velocity (PWV) as a measure of arterial stiffness

Flexible blood pressure measurement methods

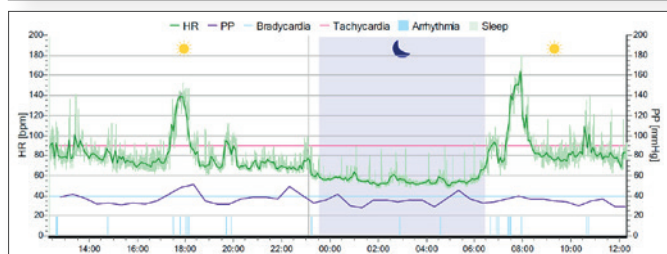
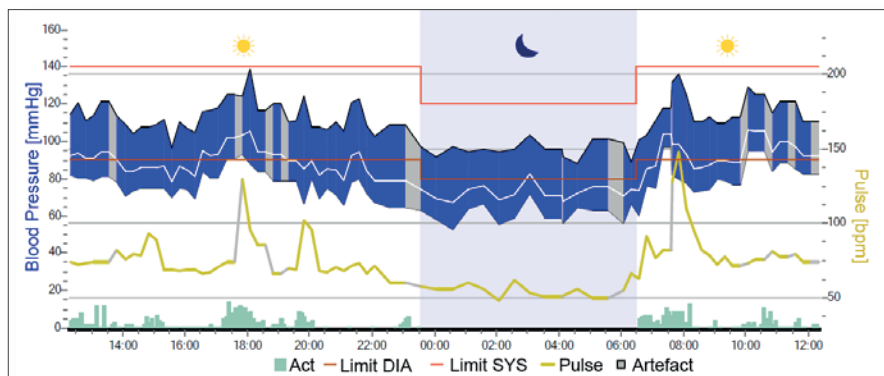
Individual choice of measurement method or combination of both methods (oscillometric / PTT)

Automatic data transfer (USB connection), analysis and report generation



- ◆ Standard view: analysed data for a quick overview of the 24-hour blood pressure
- ◆ Advanced view: raw data to check for artefacts or verify the values measured
- ◆ Display of all measured values: sys/dia blood pressure, mean arterial pressure, heart rate, pulse pressure, body position, activity, day/night
- ◆ Display of the inflation/deflation process

REPORT



PTT BP Day/Night					
Total report	Min.	Aver.	Max.	SD	> Limit
SYS [mmHg]	77	108	155	11.7	0.7 %
DIA [mmHg]	19	71	120	12.1	8.3 %
HR [bpm]	46	75	191	24.9	32.9 %
MAP [mmHg]	46	83	128	11.4	3.3 %
PP [mmHg]	20	37	105	7.7	1.2 %

0 Min and 0 Max computed as mean value from 0 values.

No. BP Values: 81503 (84% TRT)

Day/Night Dipping	Min.	Aver.	Max.	SD	> Limit
SYS [mmHg]	-16.7 %				
DIA [mmHg]	-23.4 %				
HR [bpm]	-33.3 %				
MAP [mmHg]	-20.2 %				
PP [mmHg]	-2.7 %				

Classification of BP Levels according to guideline of ESH (WHO)

● optimal ○ normal ○ high normal ○ Grade 1 HT ○ Grade 2 HT ○ Grade 3 HT

Classification according to the mean blood pressure during day.

- ◆ Individually adjustable reports
- ◆ Tabular or graphical presentation of measured data
- ◆ 24-hour overview of all blood pressure and heart rate values with classification of day and night
- ◆ Conventional reports with blood pressure and heart rate values in 15 or 30 minute intervals

Basic set

ABPMpro

- Ambulatory, long-term BP
- Internal ECG
- Actigraphy
- Body position (arm)

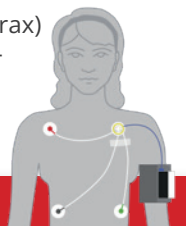


Art. No.: **ABP100**

Holter ECG set

ABPMpro + 3-channel ECG sensor

- Ambulatory, long-term BP
- Internal ECG
- Actigraphy
- Body position (arm)
- Holter ECG
- Body position (thorax)
- Impedance cardiography (Breathing rate, PEP)

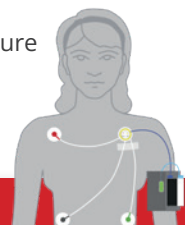


Art. No.: **ABP110**

Cont. blood pressure set

ABPMpro + 3-channel ECG sensor + Pleth sensor

- Ambulatory, long-term BP
- Internal ECG
- Actigraphy
- Body position (arm)
- Holter ECG
- Body position (thorax)
- Impedance cardiography (Breathing rate, PEP)
- PWA / PWV
- Cont. blood pressure based on PTT



Art. No.: **ABP120**



The ABPMpro is a compact and easy-to-use, long-term blood pressure monitor that provides higher diagnostic value by simultaneously recording actigraphy, body position and heart rate.

TECHNICAL DETAILS

Measurement intervals	3, 5, 10, 15, 20, 30, 60 min. programmable, sound signal before measurement start
Measured pressure range	Systolic 60 - 230 mmHg, diastolic 40 - 130 mmHg
Cuff sizes	S (18 - 24 cm), M (24 - 34 cm), L (34 - 46 cm)
Cuff pressure	0 - 300 mmHg
Display	Black / white, OLED
Operating elements	2 operating buttons, multi-functional
Power supply	Li-Ion battery (1.800 mAh)
Data storage /-transfer	8 GB micro SD, battery charging and data transfer via USB connection
Data collection	16 - 24 bit signal resolution
Size / weight (without cuff)	101 x 75 x 24 mm, weight: 125 g (incl. battery)
Software	License free
Interfaces	Connection per HL7 (optional)
Included in delivery	Basic device ABPMpro, cuff size M, evaluation software, manual, USB connection and charging cable, measuring tape, bag