

ABPMpro

**AMBULATORY LONG-TERM
BLOOD PRESSURE MEASUREMENT**

TRADITION MEETS INNOVATION



**Traditional
Continuous**

**Oscillometric measurement
PTT-based method**

■ ■ ■ Made in Germany



CARDIOdiagnostics

A division of SOMNOmedics

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)

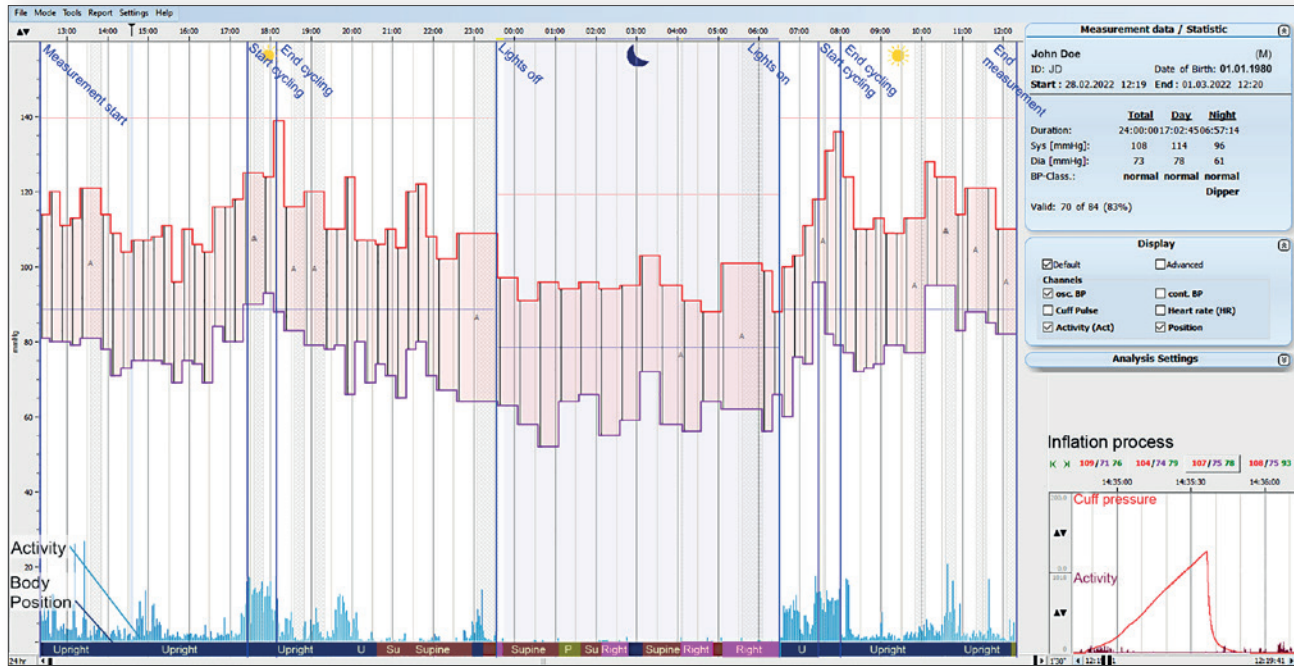
- ◆ Systolic / diastolic blood pressure values (in mmHg), beat-to-beat
- ◆ Heartbeat-precise representation of the blood pressure curve with all minima and maxima
- ◆ Detection of NBPF™ (Nocturnal Blood Pressure Fluctuations)
- ◆ No falsification of the measured values - no disturbance of sleep, no resulting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

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

Flexible blood pressure measurement methods

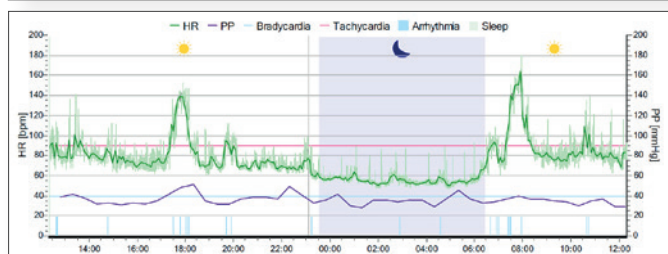
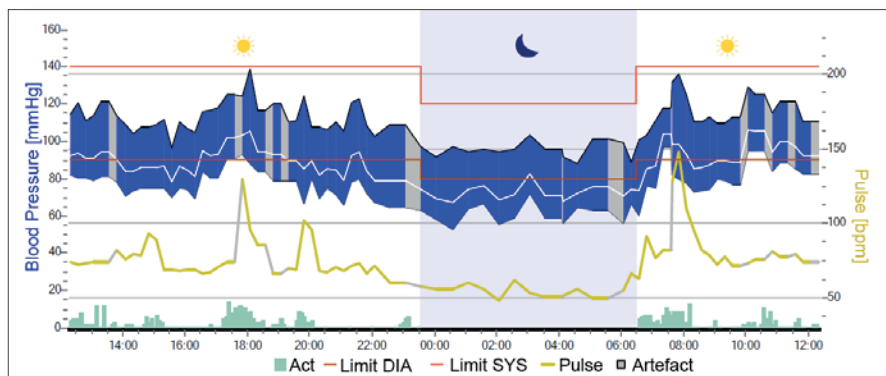
Individual choice of measurement method or combination of both methods (oscillometric / PTT)

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	106	155	11,7	0,7 %
DIA [mmHg]	19	71	120	12,1	8,3 %
HR [bpm]	46	76	101	24,9	32,9 %
MAP [mmHg]	46	83	126	11,4	3,3 %
PP [mmHg]	20	37	105	7,7	1,2 %

Day report					
	Min.	Aver.	Max.	SD	> Limit
SYS [mmHg]	77	114	155	9	1,1 %
DIA [mmHg]	19	77	120	10	9,4 %
HR [bpm]	55	84	101	23,4	45,0 %
MAP [mmHg]	46	89	126	8,8	5,0 %
PP [mmHg]	20	37	105	8,1	1,4 %

Night report					
	Min.	Aver.	Max.	SD	> Limit
SYS [mmHg]	78	95	109	4	0,0 %
DIA [mmHg]	30	59	80	6,4	0,0 %
HR [bpm]	46	56	101	6,8	3,3 %
MAP [mmHg]	49	71	87	4,5	0,0 %
PP [mmHg]	20	36	68	6,2	0,7 %

Day/Night Dipping					
	Value	Classification			
SYS [mmHg]	-16,7 %	Reverse Dipper			
DIA [mmHg]	-23,4 %	Non-Dipper			
HR [bpm]	-33,3 %	Dipper			
MAP [mmHg]	-20,2 %	Dipper			
PP [mmHg]	-2,7 %	Extreme Dipper			

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


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

- ◆ 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)

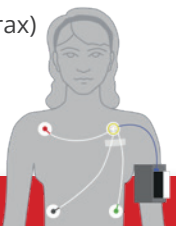


Art. No.: **ABP100**

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)

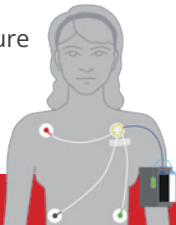


Art. No.: **ABP110**

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



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