

**ABPMpro**

**AMBULATORY LONG-TERM  
BLOOD PRESSURE MEASUREMENT**

# TRADITION MEETS INNOVATION



**Traditional  
Continuous**

**Oscillometric measurement  
PTT-based method**

■ ■ ■ Made in Germany

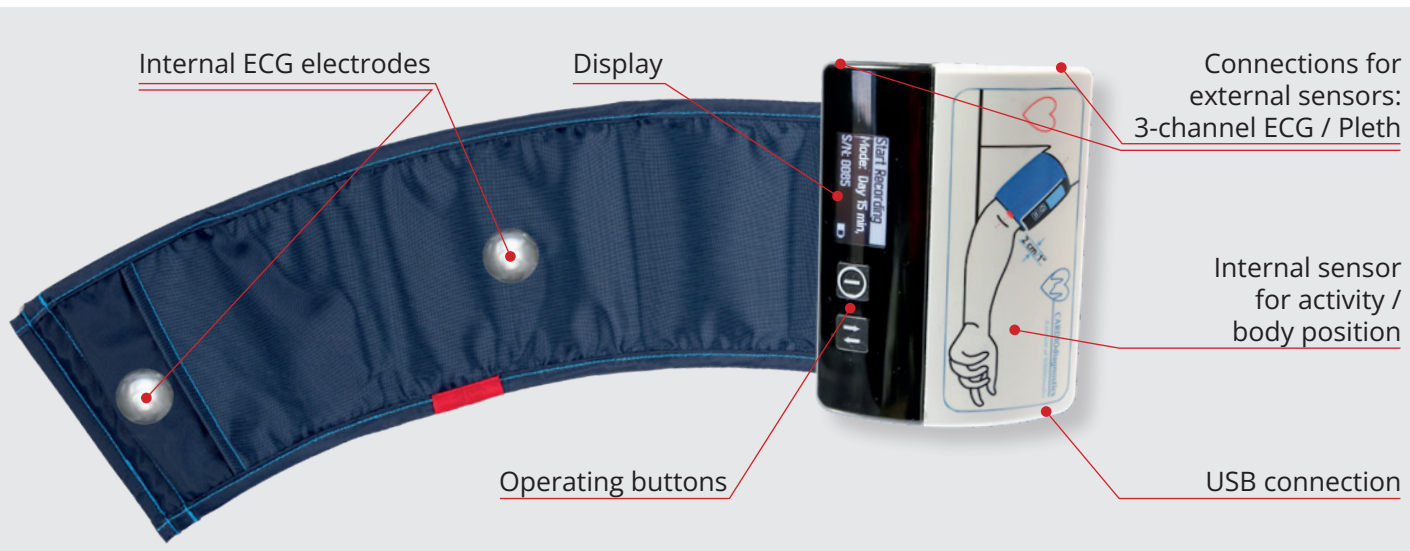


**CARDIOdiagnostics**

*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)**

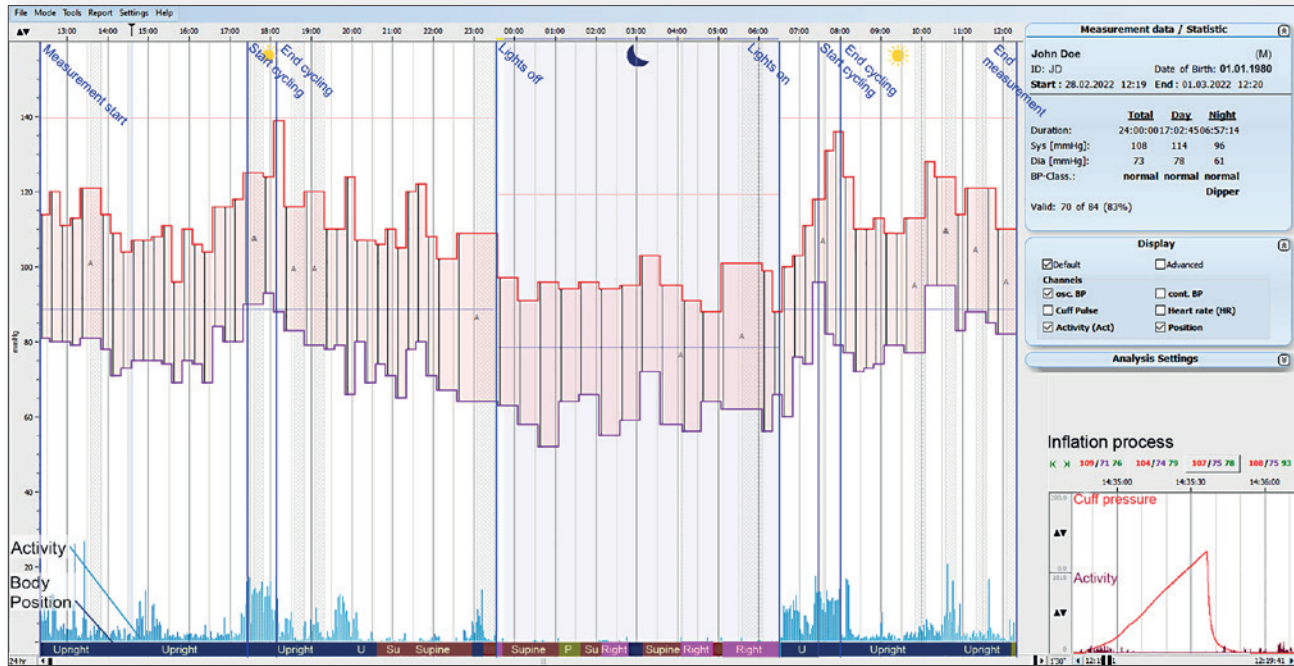
- ◆ Systolic / diastolic blood pressure values (in mmHg), beat-to-beat
- ◆ Heartbeat-precise representation of the blood pressure curve with all minima and maxima
- ◆ Detection of NBPF™ (Nocturnal Blood Pressure Fluctuations)
- ◆ No falsification of the measured values - no disturbance of sleep, no resulting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

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

**Flexible blood pressure measurement methods**

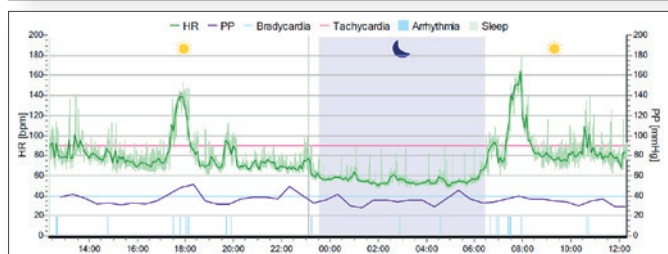
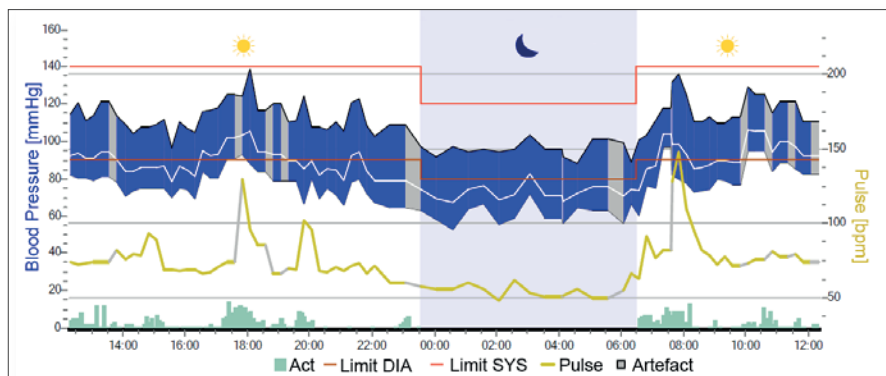
Individual choice of measurement method or combination of both methods (oscillometric / PTT)

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	128	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	4.9	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)

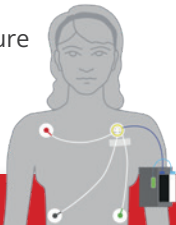


Art. No.: **ABP110**

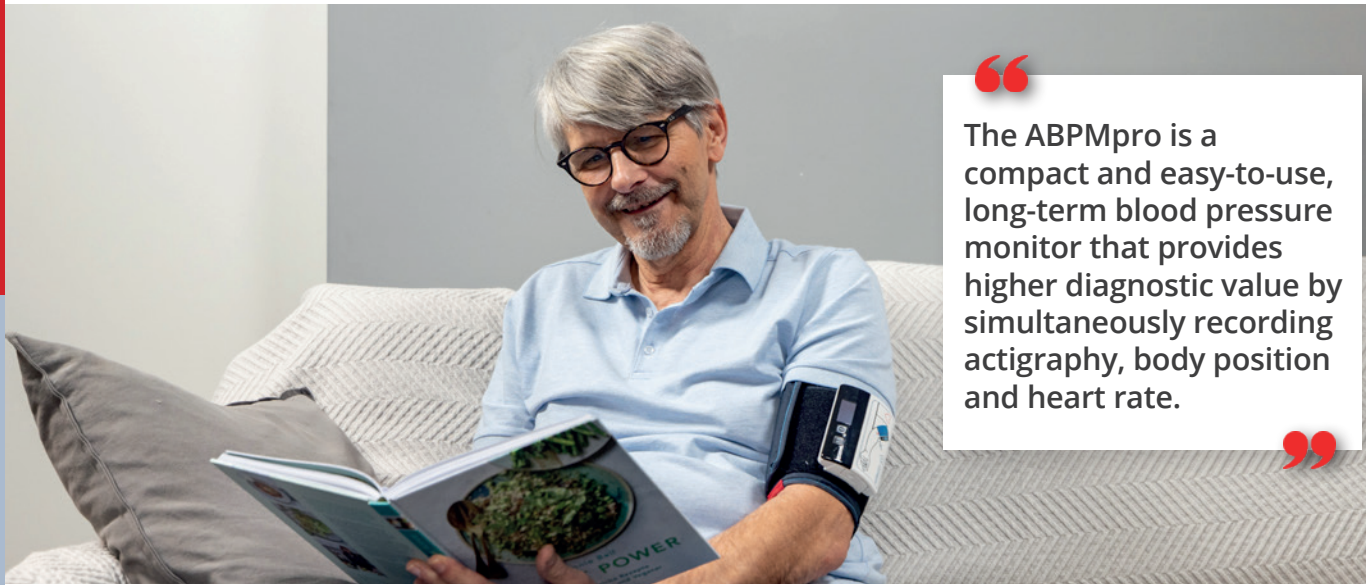
**Cont. blood pressure set**

**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.  
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**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