

Technical Data Mobil-O-Graph®

The typical use of the Mobil-O-Graph® is 24h blood pressure Monitoring. Optionally, pulse wave analysis with different licenses is possible. The values are analyzed by the accompanying HMS-CS software.

General Performance

Measurement	Oscillometric principle 24h ambulatory blood pressure monitoring
Advanced comfort	IGI (Initially Gradual Inflation): Pressure setting for a gentle measurement SST (Soft Slope Technology): Time adaptation from XS-XL sized cuff AF® Logic (Auto-Feedback-Logic): Faster and most convenient measurements First measurement: step-up / step-down technology From the second measurement: Auto-Feedback-Logic - AF® (significantly better night sleep and comfort for the patients through individualized cuff inflation algorithm* ¹)
PWA option	Calculation via license system Key A: Central blood pressure Key B: Full Pulse Wave Analysis Key C: Central blood pressure + Augmentation Index @75
Communication	Bluetooth, Infrared, Serial RS232
Measurement range	Systolic (SYS): 60 to 290 [mmHg] Diastolic (DIA): 30 to 195 [mmHg] Pulse (Pulse): 30 to 240 BPM (Beats per Minute)
Pressure range	0 - 300 mmHg
NIBP Accuracy	validated according to ISO 81060-2 and BHS (A/A Grading)
Measurement frequency	4 changeable, free variable day- and night interval groups Measurements per hour 0, 1, 2, 3, 4, 5, 6, 10, 12, 15, 20 or 30 Option: Auto telemetric transfer of Blood Pressure Measurement via Bluetooth
Automatic re-measurement	A measurement error causes an automatic repetition of measurements after 3 minutes.
Power supply	2 x Ni-MH power packs, each 1.2 V and min. 1500 mAh (AA, Mignon) 2 x 1.5 V alkaline batteries (AA, Mignon)
Operation and control	Display: LCD Acoustic: Beeper Panel: 4 Multifunction buttons
Memory	300 measurements Blood Pressure or 260 measurements Blood Pressure and Pulse Wave Analysis
Battery capacity	>300 measurements with M-Cuff and high-grade batteries
Operation temperature	+10°C to +40°C
Operation humidity	15% to 90% relative humidity, non-condensing
Storage temperature	-20°C to +50°C
Storage humidity	15% to 95% relative humidity, non-condensing

Atmospheric Pressure	700 hPa to 1060 hPa
IP Rating	IP 42
Weight	Approx. 240 g (incl. batteries)
Dimensions	L 128mm x W 75mm x H 30mm

Wireless Performance

Bluetooth Chip	Silicon Labs WT11u
Bluetooth Version	Bluetooth v2.1 + EDR (Enhanced Data Rate)
Transmission output power	Bluetooth class 1 radio (Transmit power: 17 dBm)
Infrared transceiver	Range up to 1.5 meters
Data transfer identification	Serial number

Maintenance Service

- Infrared Interface: Calibration for Blood Pressure Module

Cuff Sizes

- XS: 14 – 20 cm (5.5 – 7.9 inch)
- S: 20 – 24 cm (7.9 – 9.5 inch)
- M: 24 – 32 cm (9.5 – 12.6 inch)
- L: 32 – 38 cm (12.6 – 15 inch)
- XL: 38 – 55 cm (15 – 21.7 inch)

Applicable Standards & Directives

- Directive 93/42/EEC (MDD) Class IIa, Annex IX, rule 10,
- Directive 2014/53/EU (RED)
- Directive 2011/65/EU (RoHS)
- IEC 60601-1: 2012, IEC 60601-1-2: 2014, IEC 60601-1-6: 2013, IEC 60601-1-11: 2015
- IEC 80601-2-30: 2013
- FCC 47 CFR Part 15
- ETSI EN 301 489-1 V2.1.1 (2017-03)
- ETSI EN 301 489-17 V3.1.1 (2017-02)
- FDA 510(K)

Note

Use only high-quality batteries. If using less efficient batteries IEM cannot guarantee the operating time specified above. Using batteries of poor quality can reduce operating time to 50%.

*1 Convenience of ambulatory blood pressure monitoring: Comparison of different devices BPMJ 2005, Vol 10 No 10:239-242