

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 adjustment of the measurement according to cuff size (from XS-XL) 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*)
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
Pressure accuracy	+/- 3 mmHg in display range
NIBP Accuracy (non invasive blood pressure measurement)	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, 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 x W x H)	128 mm x 75 mm x 30 mm
Expected service life of the device	5 years
Expected service life of the cuff	6 months

Performance data of the wireless connections

Property		Description
General		
Data transfer identification		Serial number
Infrared		
Infrared transceiver		Range up to 1.5 meters
Bluetooth		
wt11i / wt11u	Bluetooth Chip	Silicon Labs WT11i / WT11u
	Bluetooth Version	Bluetooth v2.1 + EDR (Enhanced Data Rate)
	Transmission output power	Bluetooth class 1 radio (TX power: 17 dBm)
BT121	Bluetooth Chip	Silicon Labs BT121-A
	Bluetooth Version	Bluetooth v2.1 + EDR (Enhanced Data Rate) Dual Mode compatible
	Transmission output power	Bluetooth class 1 radio (TX power: 12 dBm)

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
- 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 %.

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