

 **PAR**

NIBP UP®

OEM Module: NIBP 2020 UP Combi-board

NIBP Module with SpO₂ measurement for patient monitors



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GERMANY

Technical Specifications

Blood Pressure Measurement

Measurement Method	oscillometric method with NIBP® UP inflation technology or classic deflation technology, selectable	
Typical Measurement Time	17 s	
Measurement Interval	1 – 90 min, programmable	
Operating Modes	manual, long-term automatic, short-term automatic, service	
Measurement Range		
Systole	(adults) (neonates)	25 – 280 mmHg 20 – 150 mmHg
Diastole	(adults) (neonates)	10 – 220 mmHg 5 – 110 mmHg
Pulse Rate	30 – 240 bpm	
Accuracy Blood Pressure	+/- 1 mmHg	
Accuracy Pulse Rate	+/- 2 bpm	

Cuff

Connection	metal-snap connection
Size	different sizes
Pressure	max. 300 mmHg

Oxygen Saturation

Measurement Method	SMARTsat® SpO ₂ technology
Sampling Rate	75Hz
Value Update	every 1, 2, 5 s
Sensor	SoftFlap® SF sensor

Measurement Range

SpO ₂	0 – 100 %
Pulse Rate	20 – 300 bpm
Accuracy SpO ₂	(no motion) (motion)
Accuracy Pulse Rate	+/- 2 Arms +/- 3 Arms (no motion) (motion)

System

Size (LxWxH)	(flat pump) (round pump)	80 mm x 60 mm x 25 mm 80 mm x 60 mm x 33 mm
Weight	(flat pump) (round pump)	100 g 120 g
Power Supply	+5 VDC (4.8VDC – 7 VDC) and max. 750 mA +12VDC (11 VDC – 13 VDC) and max. 530 mA	

Interface to Monitor

Transmission Standard	RS232-TTL level
Baud Rate	19200
Protocols	CAS (default), Colin, Suntech, Welch Allyn, Criticon, and others
Connection	10-pin twin-row plug for all connections

Maximum Operation Conditions

Temperature Range	0°C to +45°C
Relative Humidity	15 – 95 % (non-condensing)
Luftdruck	700 – 1060 hPa

PAR

"A new Generation in patient-friendly blood pressure measurement!"



"Reliable to all international safety standards!"



NIBP UP® Technology

The new and innovative NIBP UP® technology by PAR Medizintechnik is a revolution in patient-friendly blood pressure measurement. The most important improvement of this technology is the blood pressure measurement during inflation of the cuff (inflation method or IMT). This measurement technique allows deflation immediately after reaching the systolic pressure and leads more than a halving of measuring time (17s with NIBP UP® instead of 40s with classic step deflation). Additionally a markedly reduction of the compressive load is reached. These changes are received very positively among clinicians and patients and result in a very high acceptance of patients.

Reliable Safety and Quality

Clinical studies show high precision of measurement results and the feedback of our customers confirm comfort and accuracy of measurements. Our Modules have a 2-Controller, 2-pressure transducer and 2-valve design for full compliance with international safety standards.

With this product, customers can trust in the accustomed quality of PAR Medizintechnik as usual, leading to high life expectancy through tested and high-quality components.

System Standards:

DIN EN 60601-1 (2nd & 3rd edition)
DIN EN 60601-1-2
DIN EN 60601-1-6

BP Measurements Standards:

DIN EN 1060-3
DIN EN 60601-2-30, 80601-2-30
DIN EN ISO 81060-2

- > CE-certified
- > officially approved for measurements on adults and neonates
- > accuracy and reproducability demonstrated in extensive clinical tests
- > measurement artifact suppression
- > long live span
- > NIBP UP® inflation mode and classic step deflation mode available

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"Comfort, quality and performance!"



"Flexible and easy to use!"

SMARTsat® SpO2 technology

The SMARTsat technology platform was developed over the last few years in close cooperation with well-established research institutions and university hospitals. The very latest and innovative signal processing technologies and algorithms enable precise measurements, even under very difficult physiological conditions. According to the ISO Standards, the approved pulse oximetry sensors are calibrated and evaluated against dyshemoglobin-free reference measurements, which were determined from CO oximeter data and do not contain saturation components of the hemoglobin fractions SaCO and SaMet.



SoftFlap® SF

SoftFlap® sensors are the ideal solution for ambulatory use, or for long-term monitoring. Advanced manufacturing technologies, materials and design elements found their use in these sensors. Bluepoint® Soft Sensors are manufactured from premium materials and their design allows for effective high-level disinfection. This reduces the risk of nosocomial infection associated with surface-borne pathogenic microorganisms.

SpO₂ Measurements Standards:

DIN EN ISO 80601-2-61

SpO₂ Sensor Standards:

DIN EN ISO 10993-1

DIN EN ISO 10993-5

DIN EN ISO 10993-10

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