



CONTINUOUS NON-INVASIVE BLOOD PRESSURE & HEMODYNAMICS

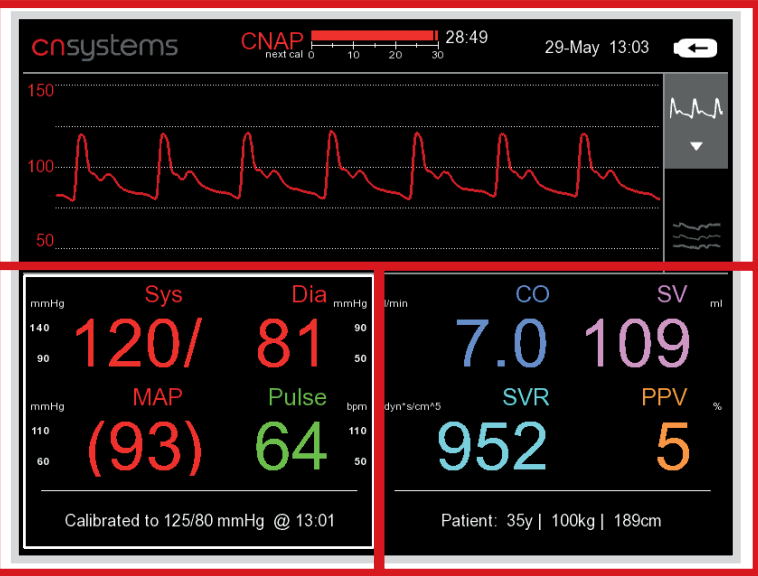
THE NEXT GENERATION OF HEMODYNAMIC MONITORING



cnap
by cnsystems

CONTINUOUS NONINVASIVE
BLOOD PRESSURE & HEMODYNAMICS

FULL HEMODYNAMIC PICTURE



> Continuous noninvasive
blood pressure waveform / trend view

> Cardiac Output
CO, CI, SV, SI

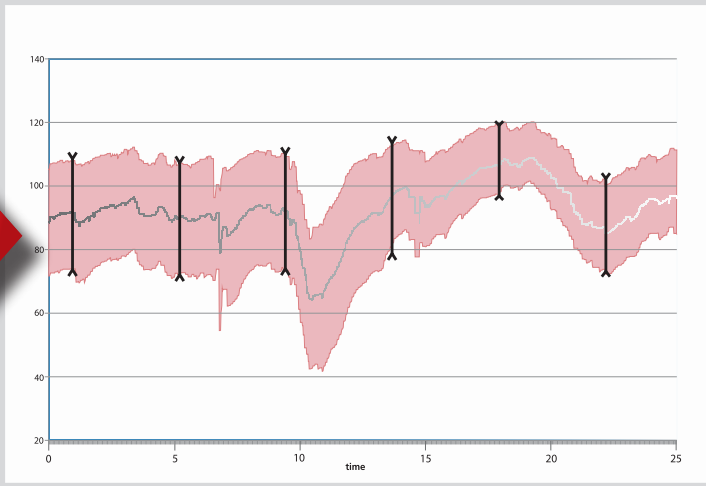
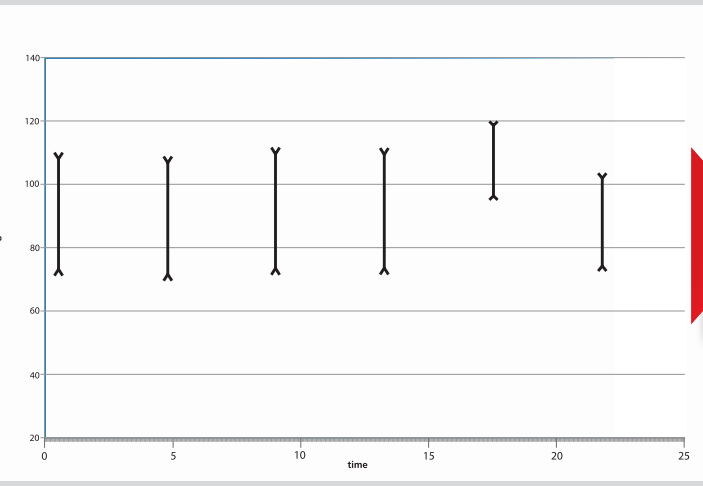
> Vascular Resistance
SVR, SVRI

> Preload parameter: PPV

> Continuous Blood Pressure: Sys, Dia, MAP, Pulse and Upper arm NBP: Sys, Dia

NEVER MISS A BEAT

Upgrade from single snapshots to the continuous CNAP® picture!



EASY-TO-USE
QUICK START UP
ALL FROM ONE SENSOR

CONVENIENT CNAP® FINGER SENSOR



NONINVASIVE

EASY-TO-USE AND QUICK

- > Quick set-up and easy application
- > Blood pressure waveform and values quickly available

ACCURATE AND RELIABLE

- > Comparable with invasive clinical standards in terms of continuity, accuracy and waveform dynamics¹⁻⁹

COST EFFECTIVE

- > Significant cost savings through reusable CNAP® double finger sensor and time-saving handling

"CNAP® BRIDGES THE GAP BETWEEN NONINVASIVE AND CONTINUOUS MEASUREMENT WITH PROVEN ACCURACY!"¹⁻⁹

SUPPORTS DIAGNOSIS AND RESEARCH IN
VARIOUS SETTINGS BY...

- > ... detecting hemodynamic reactions, e.g. to orthostatic challenges.^{10,11}
- > ... indentifying Autonomic Dysorders.^{12,13}
- > ... enhancing Syncope Assessment.¹⁴
- > ... early recognizing hemodynamic instabilities.¹⁵
- > ... providing valuable information for clinical research in Cardiology.^{16,17}
- > ... delivering reliable results for efficient treatment of ICU and ER patients.⁴⁻⁷

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TECHNICAL SPECIFICATIONS

CNAP® – CONTINUOUS NONINVASIVE ARTERIAL PRESSURE			NBP – OSCILLOMETRIC BLOOD PRESSURE		
Measuring range	Sys:	40 - 250 mmHg	Measuring range	Sys:	40 - 260 mmHg
	Dia:	30 - 210 mmHg		Dia:	20 - 200 mmHg
	Mean:	35 - 230 mmHg			
	Pulse rate:	30 - 200 bpm			
Degree of protection	BF (defibrillation proof)		Degree of protection	BF (defibrillation proof)	
Automatic scaling to brachial pressure (NBP)					
CNAP® HEMODYNAMICS: CO, CI, SV, SVR, SVI, SVRI					
Measuring range	CO	0.0 - 20 l/min	CI	0.0 - 10 l/min/m²	
	SV	0 - 300 ml	SI	0 - 150 ml/m²	
	SVR	0 - 5000 dyne*s/cm⁵	SVRI	0 - 9999 dyne*s*m²/cm⁵	
FLUID RESPONSIVENESS: CNAP® PPV					
Measuring range	PPV	0.2 - 40%			
ELECTRICAL					
Nominal voltage	100 - 240 VAC		Battery: sealed lead-gel, operating time: 2 hours (fully charged battery)		
Supply frequency	~50/60 Hz				
PHYSICAL					
Weight	7,5 kg (16,6 lbs) including accessories and cables				
Height	280 x 270 x 250 mm (11 x 10,6 x 9,8 inch)				
ENVIRONMENTAL					
Temperature	operation:	10°C - 40°C (50°F - 104°F)	storage:	0°C - 40°C (32°F - 104°F)	
Humidity	operation:	15% - 85% non condensing	storage:	15% - 95%, non condensing, wrapped	
Altitude	operation:	700 - 1060 hPa	storage:	500 - 1060 hPa	
SCREEN					
Type	TFT-LCD, 800 x 600 pixel				
Size	8,4 inch diagonally				
USER INTERFACE					
Controls	click-wheel control, fast access keys				
Indicators	visual and audible alarm indication, battery status, printer status, power LED				
Trend Display	customized configuration: numeric, graphic, alarm history				
ADJUSTABLE ALARMING SYSTEM					
Alarms	physiological: med priority; technical: low priority				
CONNECTIVITY					
BP Wave Out	easy integration in all standard patient monitoring systems (2 - 10 VDC supply voltage)				
AUX Analog Out	analog output of calibrated continuous blood pressure waveform (-5V to 5V)				
USB PORT					
Version	USB 1.1 (bandwidth 12 Mbits/s)				
PRINTER					
Type	integrated thermal printer, 58 mm				
COMPLIANCE AND APPROVALS					
Safety class II (IEC 60601)	> IEC 60601-1	> IEC 60601-1-6	> EN 1060-4 (NBP)		
Class II b (93/42/EEC)	> IEC 60601-1-2	> IEC 60601-1-8	> ISO 81060-2 (NBP)		
Patient applied part type BF	(defibrillation proof)	> IEC 80601-2-30			
INTELLECTUAL PROPERTY					
Patents	> US 6,669,648	> EP 2 493 370	> JP 2007508872		
	> US 8,114,025	> US 8,814,800 B2	> CN 102647940		
	> EP 1 675 507	> EP 2 493 373 B1			
	> US 8,343,062				

The CNAP® Monitor holds CE approval and FDA clearance.

CNAP® – Setting new standards for continuous and noninvasive hemodynamic monitoring.



local distributor:

WRMedical
1700 Gervais Avenue,
Maplewood, MN 55109 USA
Call us: 800-321-6387 | Local: 651-604-8482



CNSystems Medizintechnik GmbH
Reininghausstrasse 13, 8020 Graz/Austria
Tel.: +43 316 723456-0, Fax: +43 316 723456-2
E-Mail: office@cnsystems.com, www.cnsystems.com

