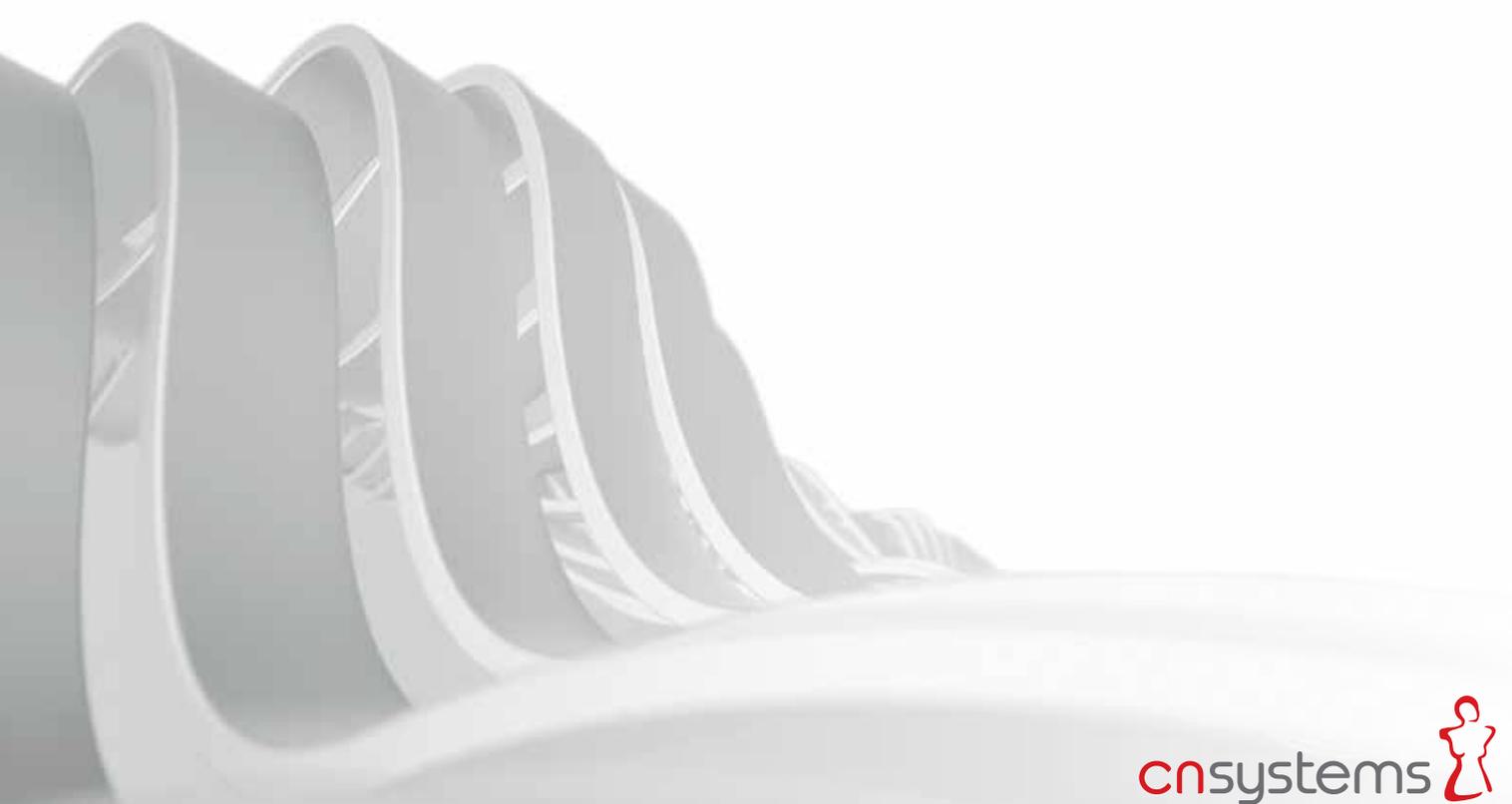


# TASK FORCE<sup>®</sup>



**CONTINUOUS NON-INVASIVE  
BLOOD PRESSURE & HEMODYNAMICS**



# TASK FORCE<sup>®</sup> CARDIO



## NON-INVASIVE & CONTINUOUS

### Synchronized patient signals

- > Finger Blood Pressure:  
CNAP<sup>®</sup> waveform, SYS, DIA, MAP, Pulse Rate
- > Upper arm NBP: SYS, DIA, MAP
- > Advanced Hemodynamics (CNAP<sup>®</sup> HD): SV, SVI, CO, CI, SVR, SVRI
- > ECG<sup>1</sup>: 12 channels (wireless, Bluetooth), HR



## PROVEN & RELIABLE

### Most popular finger blood pressure method

- > 6,000+ installed base
- > More than 1,100 peer-reviewed publications with CNAP<sup>®</sup> technology<sup>2-6</sup>
- > Over 20 years of experience in non-invasive hemodynamic measurement
- > OEM cooperations with leading global partners

### Reliable when it matters most

- > Continuous & un-interrupted measurements
- > Reliable detection of rapid BP changes (i.e. syncope)



1 Third party product

2 Wagner, J. Y., et al. Continuous noninvasive arterial pressure measurement using the volume clamp method: an evaluation of the CNAP device in intensive care unit patients. *J Clin Monit Comput*, 29(6), 807-13. doi:10.1007/s10877-015-9670-2 (2015).

3 Wagner, J. Y., et al. A comparison of volume clamp method-based continuous noninvasive cardiac output (CNCO) measurement versus intermittent pulmonary artery thermodilution in postoperative cardiothoracic surgery patients. *Journal of Clinical Monitoring and Computing*, 1-10. <http://doi.org/10.1007/s10877-017-0027-x> (2017).

4 Jeleazcov, C. et al. Precision and accuracy of a new device (CNAP<sup>®</sup>) for continuous noninvasive arterial blood pressure monitoring: assessment during general anaesthesia. *BJA*, 105(3):264-272 (2010).

5 Ilies, C., Investigation of the agreement of a continuous non-invasive arterial pressure device in comparison with invasive radial artery measurement. *BJA*, 108(2):202-10. doi: 10.1093/bja/aer394 (2012).

6 Smolle, K.-H. M., et al. The Accuracy of the CNAP(R) Device Compared with Invasive Radial Artery Measurements for Providing Continuous Noninvasive Arterial Blood Pressure Readings at a Medical Intensive Care Unit: A Method-Comparison Study. *Anesthesia & Analgesia*. Retrieved from [http://journals.lww.com/anesthesia-analgesia/Abstract/publish-ahead/The\\_Accuracy\\_of\\_the\\_CNAP\\_R\\_Device\\_Compared\\_with.98193.aspx](http://journals.lww.com/anesthesia-analgesia/Abstract/publish-ahead/The_Accuracy_of_the_CNAP_R_Device_Compared_with.98193.aspx) (2015).

# HEMODYNAMIC MEASUREMENT JUST GOT EASIER



## EASY-TO-USE

### Quick and safe setup

- > Up and running in 1.5 min
- > Dual Finger Sensor Design for safe and easy application
- > Gold Standard NBP calibration for accurate results



## SMART SOLUTIONS

### All-in-one workstation

- > 24" Touch screen<sup>1</sup> & Task Force® CARDIO Application Software
- > Task Force® CORE hardware using proven CNAP® HD technology for advanced hemodynamic measurement
- > Smart cable management & component storage<sup>1</sup>
- > Stylish design cart<sup>1</sup>: lightweight & easy to move, height adjustable

### Supporting workflow in daily routine

- > Guided application protocols ensure standardized measurements
- > Easy reporting
- > Wireless data export
- > Integration in clinical & research environments



## TASK FORCE® CORE (HARDWARE)

CNAP® – CONTINUOUS NON-INVASIVE ARTERIAL PRESSURE			NBP – OSCILLOMETRIC BLOOD PRESSURE		
Measuring range	SYS:	40 - 250 mmHg	Measuring range	SYS	25 - 280 mmHg
	DIA:	30 - 210 mmHg		DIA	10 - 220 mmHg
	MAP:	35 - 230 mmHg		MAP	15 - 260 mmHg
	BP Wave:	0 - 300 mmHg			
	Pulse rate:	30 - 200 bpm			
Automatic calibration to brachial pressure (NBP)					

## CNAP® HD - ADVANCED HEMODYNAMICS: CO, CI, SV, SVI, SVR, SVRI

Measuring range	CO	0.0 - 20 l/min	CI	0.0 - 10 l/min/m <sup>2</sup>
	SV	0 - 300 ml	SVI	0 - 150 ml/m <sup>2</sup>
	SVR	0 - 5000 dyne*s/cm <sup>5</sup>	SVRI	0 - 9999 dyne*s*m <sup>2</sup> /cm <sup>5</sup>

## CONNECTIVITY

Analog Out	max. 8 channels: -5V to 5V and 0V to 5V
Analog In	max. 4 channels: -5V to 5V and 0V to 5V
USB Port	Version USB 2.0

## ELECTRICAL

Nominal voltage	100 - 240 VAC
Supply frequency	~50/60 Hz

## PHYSICAL

TASK FORCE® CORE (Hardware)	Weight: 1.8 kg	Size: 210 x 210 x 73 mm
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## ENVIRONMENTAL

Temperature	operation: 10°C - 35°C (50°F - 95°F)	storage / transport: 0°C - 40°C (32°F - 104°F)
Humidity	operation: 15% - 85%, non condensing	storage / transport: 15% - 95%, non condensing, wrapped
Atmospheric pressure	operation: 700 - 1060 hPa	storage / transport: 500 - 1060 hPa

## COMPLIANCE AND APPROVALS

Safety Class II (IEC 60601-1)	> IEC 60601-1	> ISO 81060-2 (NBP)
Class IIa (MDR (EU) 2017/745)	> IEC 60601-1-2	
Patient applied part type BF (defibrillation proof)	> IEC 80601-2-30	> Approvals: CE (MDR)

## TASK FORCE® CARDIO (APPLICATION SOFTWARE)

> Presentation and processing of acquired data from Task Force® CORE hardware.	> Approvals: CE (MDR)
> Synchronizing with ECG signals	
> Advanced reporting options	

## SOFTWARE OPTIONS (LICENSES)

> CNAP® BP only	> ECG	> CNAP® HD Advanced Hemodynamics	> Export License	> Analog I/O Option
<i>Software Updates and Upgrades due to continuous improvements are possible upon request.</i>				

## ECG - HEART RATE (HR)

Derivations	12 channels	Wireless data transmission via Bluetooth version 2.1+EDR
Sampling rate per channel	500 Hz	Transmission range: 10 m without LOS, at least 15 m with LOS
Measuring range HR:	30 - 200 bpm	Class IIa (MDD 93/42/EEC); Patient applied part type CF (defibrillation proof)

## PC & 24" TOUCH SCREEN

Type	Medical Grade Panel PC, TFT HD TOUCH screen	
Screen size	24" (61cm diagonally); 53,1 x 29,9 cm	
Screen resolution	1920 x 1080 Pixel	
Physical	Weight: 8.2 kg incl. accessories and cables	Size PC: 600 x 398 x 65,6 mm

## Safety Class II (IEC 60601-1)

## CART

Physical	Weight: appr. 35 kg	Size: H 130 (to max. H 142) x B 60 x T 70 cm
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**TASK FORCE® TOUCH platform – setting new standards in non-invasive hemodynamic measurement.**



local distributor:

**cnsystems** 

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