



MEASURE THE ANS
CONTROL NOCICEPTION
IMPROVE OUTCOMES

NIPE Monitor V1

Newborn Infant
Parasympathetic Evaluation



The NIPE technology provides an objective way to assess the nociception/analgesia balance for neonates and young infants, allowing care to be individualized. NIPE offers a continuous assessment of the parasympathetic component of the autonomic nervous system in neonates and young infants. This unique technology is proven to work with extremely premature babies, from around 26 weeks gestation, through to infants up to two years of age. The NIPE is based on the electrocardiogram taken from the patient monitor in use and does not require additional patient sensors.



NIPE technology benefits:



Evaluation of the newborn parasympathetic activity

C. Garabedian. et al., PLoS One. July 2017.



Detect nociception

Frank Weber F, et al., Paediatr Anaesth. 2019 Feb 21.



Evaluation of the newborn autonomic response to prolonged pain

Buyuktiryaki M et al., Korean J Pediatr. 2018.



Evaluate of the state of comfort/discomfort of the patient

Butruille Infant Behav Dev. Alexandre et al., Arch Pediatr. 2017.



NIPE Monitor Technical Specifications

Output

Parameter	Specification
Real Time Export Protocol	RS-232 interface
Saved Data Export	USB interface

Power Requirements

Parameter	Specification
Main Voltage	100-240 VAC ($\pm 10\%$)
Main Frequency	50/60Hz (± 3)
Battery	No battery
DC Input	12V 3.4A 40W
Patient Leakage Current	NA

Environmental

Parameter	Specification
Cooling Method	Convection. Fanless
Temperature Operating Storage	5°C to 35°C - 20°C to 60°C
Atmospheric Pressure Operating Storage	800hPa to 1066hPa 800hPa to 1066hPa
Relative Humidity Operating Storage	> 15% and <95% non-condensing > 15% and <95% non-condensing
Dimensions With pole clamp	27 (width) x 24.7 (height) x 16.5 (depth) cm
Dimensions Without pole clamp	NA
Weight With pole clamp	2 kg
Weight Without pole clamp	NA

Connector

Parameter	Specification
DC Input (monitor)	Jack DC 2-pin power connector
Export (monitor)	DE-9 male connector to export data in real time
Data Export (Monitor)	USB connector to export data and snapshot to USB stick
Multi parametric link	4-pin circular connector
Patient Connector	NA

Screen

Parameter	Specification
Type	Color Liquid Crystal
Size	213 mm (8.4 inches)
Resolution	800 x 600 pixels
Active Viewing Area	173 x 130 mm
Pixel pitch	0.216 x 0.217 mm