

medin-NC3

Technical specification

The medin-NC3 is a CPAP driver that can be used in combination with the Medijet nCPAP generator to administer CPAP therapy. The role of the medin-NC3 in this CPAP system is to provide the necessary, possibly oxygen-enriched flow volume of the gas, which is fed to the nCPAP generator Medijet via the tubes connected to the patient and is converted into CPAP pressure within the generator. In addition, there is the option to connect Nuflow nasal cannulas and perform High Flow therapy.

The medin-NC3 must be used under the supervision of expert, specially trained staff in a clinical setting or during intrahospital transport, and the patient's oxygen saturation must be monitored at the same time.

Parameters

Dimensions (L x W x H)	34x25x25cm
Weight	6.25kg
Gas feed system	Computer-controlled electronic gas mixer with integrated oxygen sensor and integrated blower; flow-controlled Basic flow setting range: 0L/min to 15 L/min Basic flow + push: max. 17.5 L/min Accuracy: ± 1 L/min (2 to 10 L/min) ± 2 L/min (10 to 17.5 L/min)
Gas feed	Air: Ambient air, internal blower Oxygen: 300 to 700 kPa (= 3.0 to 7.0 bar)
Gas connection	Connector standard: DISS or NIST (as preferred)
Patient flow outlet	Dimensions M22 (OD) or F15 (ID)
CPAP pressure meter connection	Luer-type – 4.3 mm ID
Power supply	1x internal battery, 1x external battery (optional), 14.4 V DC, run time approx. 2 hours per battery, rechargeable External power supply 100 to 240 V AC / 50 to 60 Hz
Display	7.0" – color, 800 x 480 pixel
Data	Patient pressure (diagram and measurement) Trend: CPAP, FiO ₂ , RR, push frequency, flow, rate, I:E (up to 28 days)

CPAP	Measurement range 0 to 20 mbar (in 0.1 mbar increments) Verification: Redundant measurement by two sensors Accuracy: ± 1.3 mbar
Push (inspiration support)	Setting range Additional flow during the inspiration push with up to 70% of the basic flow: Min: 0 L/min Max: 17.5 L/min (basic flow + push flow) Duration 200 ms to 3 seconds Manual and automatic triggering of pushes Accuracy: Analogous to the accuracy of the basic flow, after the adjustment time has expired
Leak-Assist	Leakage compensation (± 5 L/min to maintain the target pressure) in all CPAP modes (not in High Flow mode)
RR (respiration rate)	Optional display of the measured respiratory rate, no display up to 120 breaths per minute, in CPAP and Apnea CPAP mode
Apnea time	2 to 30 s (in 1 s increments)
T _{insp}	0.2 to 3.0 s (in 0.1 s increments)
Triggering	Pressure trigger, based on the CPAP pressure sensitivity, ± 0.2 to ± 1.0 mbar (in 0.1 mbar increments)
FiO ₂	Oxygen concentration Setting range: 21 to 100% (in 1% increments) Measurement range: 21 to 100% Alarm settings: ± 2 -5% difference O ₂ flush (level: +5, +10, +15% (vol.) above set target oxygen concentration) for 60 s Accuracy of delivered gas mixture: $\pm 5\%$ (2 to 4 L/min), $\pm 2\%$ (from 4 L/min) Accuracy measurement: $\pm 3\%$ (Vol.) Total system response time < 17s to 90 % of final value

Software settings

Languages	EN, DE, FR, IT, NL, ES, EL, CS, PL, NO, DA, SV, RU, LT, ZH, TR, JA, RO, FI
Pressure units	mbar or cmH ₂ O
Pressure scale	Three settings: 0 to 10, 0 to 15 and 0 to 20 mbar
Respiration rate	Optionally shown on display

Description of modes

CPAP	Pure CPAP mode in which a constant CPAP pressure in the Medijet is generated by a constant flow. This mode operates without automatic pushes. However, operators can trigger manual pushes if necessary. In addition, the Leak-Assist can be switched on.
Apnea CPAP	In this mode, the basic CPAP mode described under CPAP is combined with apnea monitoring. The medin-NC3 assesses the CPAP pressure signal and recognizes from this information whether or not respiratory activity is taking place. If no respiratory activity can be detected for a length of time that can be set, the medin-NC3 automatically triggers a push to stimulate the patient. In addition, the backup function can be used and the Leak-Assist can be switched on for this purpose.
NIPPV	In contrast to CPAP mode, ventilation is provided here on two different flow and pressure levels. The intensity of the second level as well as the changeover frequency and the time spent at the higher level can be adjusted by the user. In addition, the Leak-Assist can be switched on.
High Flow	The High Flow mode offers a constant flow up to a maximum of 12 L/min. In High Flow mode, the user can only set a flow up to a maximum of 8 L/min, for safety reasons. If he/she wishes to utilize the entire range up to 12 L/min, this must be done deliberately by selecting the flow button, pressing it once again and holding it down and thus setting the flow greater than 8 L/min.
Standby	Standby, can be used for the time between preparation of the medin-NC3 and its actual use as well as for pauses in the CPAP therapy for a patient.

Warranty and services

Information on warranty can be found on our homepage www.medin-medical.com under the general terms and conditions.

In addition, medin offers two different warranty extensions:

- 3 years (REF 30-912) from the date of production
- 5 years (REF 30-913) from the date of production

These warranty extensions only relate to components with defects caused by production, wear parts, as well as software problems.

In addition, the customer must demonstrate that all required maintenance was performed.

The medin-NC3 must undergo maintenance and a device check in accordance with the manufacturer's instructions in the service manual every 12 months. This must be carried out by trained specialists using appropriate measuring and testing equipment.

Accessories and configuration

Suitable accessories and possible configurations of the device can be found in the instructions for use.



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