

VECTOR *et* AUTO



VECTOR *et* APAP (AUTO CPAP)

VECTOR *et* Auto CPAP is a therapy device for treating obstructive sleep apnea. Within a certain pressure range the device automatically controls the therapy pressure depending on the occurrence of respiratory events. In sleep phases with no events the therapy pressure is lowered. Starting obstructive events are treated effectively with a slight pressure increase. For a high therapy comfort the therapy pressure should always be only as high as necessary and as low as possible.

The device can recognize the following respiratory events:

- Obstructive apnea
- Hypopnea
- Central apnea
- Snoring
- Normal respiration

The identification of the different respiratory events is achieved via 3 channels:

1. Measurement of any constriction of the respiratory tract.
2. Detection of flow limitations by measuring the flow.
3. Detection of snoring with the help of sound detection.

The combined analysis of all results facilitates a very precise differentiation between obstructive and central events.

The device adjusts the therapy pressure according to the detected events as described below:

- Increase of pressure for obstructive events
- Decrease of pressure for central events and normal respiration

In addition, the pressure increase can be adjusted in 5 levels according to special requirements and to the individual patient comfort. These settings are performed by the doctor with the help of the PC software TRENDset.

In addition to normal APAP and CPAP modes the device offers the FLEXLINE mode, a pressure increase which is proportionate to the individual respiration flow during inspiration and a pressure decrease during expiration.

The pressure is measured directly in the mask and constantly controlled by the device. Consequently, the breathing work for the patient is as easy as possible.

In addition to the mask alarm, the device offers another safety function, the power failure alarm. It automatically restarts the motor after power restoration.

The device contains a built-in microcontroller which controls all of its functions. For added comfort an alarm clock is integrated in the device. Further comfort functions include a soft start ramp, the automatic start-stop function and the adjustable display brightness.

Technical Data

Dimensions (w x d x h)	230 x 212 x 107 mm
Mass	approx. 2,0 kg
Power supply	100 V ~...240 V ~, 50...60 Hz 24 V DC / 2,1 A
Pressure range	4 ... 20 hPa (mbar)
Max. limit pressure in the event of an error	< 30 hPa (due to construction)
Power consumption (24 V DC)	Maximum 50 W Standby < 5 W at 8 hPa (without humidifier) 10 W at 28 hPa (with humidifier, level 5) 30 W
Power consumption (power supply)	Maximum 50 W Standby < 5 W at 10 hPa (without humidifier) 12 W at 32 hPa (with humidifier, level 5) 33 W
Short time pressure variance at 4 hPa	10 bpm = ± 0,10 hPa 15 bpm = ± 0,19 hPa 20 bpm = ± 0,28 hPa
Short time pressure variance at 8 hPa	10 bpm = ± 0,10 hPa 15 bpm = ± 0,19 hPa 20 bpm = ± 0,28 hPa
Short time pressure variance at 12 hPa	10 bpm = ± 0,10 hPa 15 bpm = ± 0,19 hPa 20 bpm = ± 0,28 hPa
Short time pressure variance at 16 hPa	10 bpm = ± 0,10 hPa 15 bpm = ± 0,19 hPa 20 bpm = ± 0,28 hPa
Short time pressure variance at 20 hPa	10 bpm = ± 0,10 hPa 15 bpm = ± 0,19 hPa 20 bpm = ± 0,28 hPa
Values determined with and without AquaTRENDuni	
Long time pressure variance	< 0,3 hPa
Display accuracy pressure	0,5 hPa
Average noise level	< 25 dB(A) bei 10 hPa Operation in a distance of 1 m (corresponds to an acoustic power level of 34 dB(A))
Air delivery volume	> 170 l/min at 4 hPa therapy pressure > 160 l/min at 8 hPa therapy pressure > 150 l/min at 12 hPa therapy pressure > 130 l/min at 16 hPa therapy pressure > 120 l/min at 20 hPa therapy pressure
Operating temperature	+ 5 °C ... + 40 °C
Storage temperature	- 20 °C ... + 70 °C
Air humidity	15 ... 95 % rel. air humidity (operation and storage)
Operating altitude	- 400 m ... 3500 m (1060 hPa ... 700 hPa)
Filtration efficiency up to 1 µm	99,5 %
CE-mark	according to EC Directive 93/42/EEC
Product class according to the MDD	Ila

The technical specifications are subject to technical modification.

