

## Dräger PulmoVista® 500

PulmoVista® 500 is an Electrical Impedance Tomograph which has been specially designed for use in clinical routine. Data is continuously displayed in the form of images, waveforms and parameters. Simply put, PulmoVista 500 lets you visualize the distribution of ventilation.



D-91-2010

### AMBIENT CONDITIONS

#### During operation

Temperature (device)	5 to 40 °C (41 to 104 °F)
Temperature (electrode belt and cables)	5 to 45 °C (41 to 113 °F)
Atmospheric pressure	700 to 1060 hPa (10.15 to 15.37 psi)
Relative humidity	20 to 95%, without condensation

#### During storage and transportation

Temperature	-20 to 40 °C (-4 to 104 °F)
Atmospheric pressure	500 to 1060 hPa (7.25 to 15.37 psi)
Relative humidity	20 to 90%, without condensation

### SETTINGS

Frame rate	10, 15, 20, or 30 frames per second
Frame rate with the option ADAP	10, 15, 20, 30, 40, or 50 frames per second
Cut-off frequency for low pass filter	10 to 300/min
Upper and lower cut-off frequencies for the band pass filter	30 to 300/min



D-252883-2009

PulmoVista 500

## PERFORMANCE CHARACTERISTICS

### EIT measurement

Number of electrodes	16 electrodes plus 1 reference electrode
Feed current amplitude	80 to 90% of maximum patient auxiliary current conforming to IEC 60601-1 (3rd edition)
Feed current frequency	80 to 130 kHz

### Display unit (Medical Cockpit Infinity C500)

Resolution	1440 x 900 pixels
Contrast ratio min. 50	min. 500 : 1
Viewing angle	130°

## OPERATING DATA

### Mains supply

Mains supply nominal voltage and frequency range	100 V to 240 V, 50/60 Hz
Mains supply characteristics	mains supply must conform to clause 4.10.2 of IEC 60601-1 (3rd edition) and especially be overvoltage category II or lower according to IEC 60664-1

### Current consumption

at 230 V	max. 0.6 A
at 100 V	max. 1.3 A

### Power consumption

maximum during operation	125 W
typically during operation	approx. 80 W
maximum when device is switched off, but charging batteries	40 W

### Integrated battery

Type	2 x 12 V lead-acid battery
Fuse	F20AL 32VDC
Time bridged following a mains power failure with new and fully charged internal battery	min. 5 minutes (typically 10 minutes)

### Charging

Charging time (fully discharged batteries)	min. 12 hours
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Sound pressure level (for free-field measurement over a reflecting surface)

max. 45 dB(A)

### Dimensions (W x H x D)

PulmoVista 500 incl. trolley	600 mm x 1400 mm x 750 mm (23.62 inch x 55.12 inch x 29.53 inch)
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### Weight

PulmoVista 500 including trolley at maximum	44 kg (97 lbs)
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### Materials used

Electrode belt	silicone rubber, conductive silicone rubber, stainless steel, gold-plated brass
Patient cable	plastics (thermoplastic polyurethane (TPU), polyamide (PA), polyurethane (PUR), polypropylene (PP), thermoplastic elastomer (TPE), polybutylene terephthalate (PBT))
Trunk cable	plastics (polyamide (PA), thermoplastic polyurethane (TPU), polyurethane (PUR))

**CLASSIFICATION**

Applied parts	applied parts are: electrode belt, reference electrode, patient cable, trunk cable
Mode of operation	continuous
<b>Protection against electric shock regarding</b>	
External power supply	protection class I conforming to EN 60601-1
Applied part	type BF conforming to IEC 60601-1
Protection against harmful ingress of water	IPX1 (dripping water: vertically falling drops) conforming to IEC 60529
Microenvironments of pollution	level 2 conforming to IEC 60601-1
Electromagnetic compatibility (EMC) (conforming to European Directive 89/336/EEC)	tested in accordance with IEC 60601-1-2
Biocompatibility of applied parts	tested in accordance with ISO 10993 for intact skin and an application duration of <24 hours
Classification as per EC Directive 93/42/EEC	
Annex IX	II a

**COMMUNICATION INTERFACES ON MEDICAL COCKPIT INFINITY® C500**

<b>Digital outputs</b>	<b>Communication interface</b>
USB ports 1 and 2 (one on each side panel)	passive USB storage devices only
<b>Digital inputs</b>	
RS 232 (9-pin) connectors 1 (on the back panel)	MEDIBUS connection to ventilator
RS 232 (9-pin) connectors 3 (on the back panel)	reserved for future use
RS 232 ports are electrically isolated from the equipment electronics (test voltage 1500 V)	

**OPTION ADAP**

The option ADAP (Advanced Data Analysis Package) extends the functionality of the basic EIT software with the following functions:

- Patient data entry
- Data recording
- Event marking
- Data review
- File handling
- Higher frame rate
- Filter setting Band pass
- Manual adjustment of the operating frequency

**LIST OF ACCESSORIES**

Name/Description	Order-No.
Trunk cable	8420048
Patient cable, size S	8420029
Patient cable, size M	8420047
Patient cable, size L	8420035
Patient cable, size XL	8420271
Patient cable, size XXL	8420273
Electrode belt, size S	8420059
Electrode belt, size M	8420058
Electrode belt, size L	8420057
Electrode belt, size XL	8420056
Electrode belt, size XXL	8420055
ECG electrode (pack of 500)	4527750
Medibus cable (male/female)	8306488
Medibus cable (female/female)	8416326
Retrofit kit ADAP	8420006

**HEADQUARTERS**

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The quality management system at  
Dräger Medical GmbH is certified  
according to ISO 13485, ISO 9001  
and Annex II.3 of Directive 93/42/EEC  
(Medical devices).