

MedimaNet

Infusion monitoring and archiving network system.

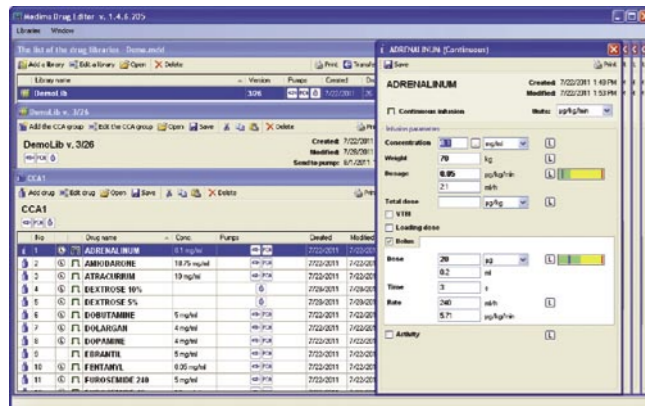


- Ward monitor
- Infusion progress monitoring
- Infusion progress archiving
- Reports
- Automatic transfer of drug libraries to pumps

Medima User ToolBox

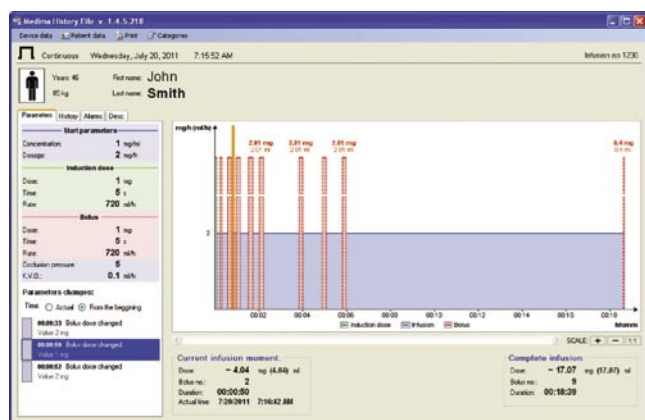
Software supporting infusion safety and precision.

Medima Drug Editor



Convenient and safe way of drug libraries creation in Windows environment. Enables fast transfer of drug libraries to pumps.

Medima History File



Software to archive and review infusions. Graphic presentation of infusion progress, detailed event log, history of infusion parameters modifications.

Medima Service ToolBox

Contains **Medima Loader** and **Medima Configurator**. Enables pumps upgrade as well as setting and uploading configurations to pumps adjusted to user's needs.

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Safe and precise infusion

Technical specifications

IV set	PVC with automatic free flow protection; DEHP-free
Infusion fluid	No medication restrictions, blood also acceptable
Flow rate	0.1 - 1200 ml/h, increments: 0.01 ml/h up to 99.99 ml/h, 0.1 ml/h from 100 ml/h to 999.9 ml/h, 1 ml/h above 1000 ml/h, priming the line 1200 ml/h
Infusion volume	0.1 - 20000 ml, increments: 0.01 ml up to 999.99 ml, 1 ml above 1000 ml
Infusion time	1 min - 200 h
Bolus	Flow rate up to 1200 ml/h, increments: 0.01 ml/h up to 99.99 ml/h, 0.1 ml/h from 100 ml/h to 999.9 ml/h, 1 ml/h above 1000 ml/h. Programmable volume (dose), time or flow rate. Automatic and manual bolus.
Induction dose	Flow rate up to 1200 ml/h, increments: 0.01 up to 99.99 ml/h, 0.1 ml/h from 100 ml/h to 999.9 ml/h, 1 ml/h above 1000 ml/h. Programmable volume (dose), time or flow rate.
KOR (KVO)	0 - 20 ml/h, 0.1 ml/h increments
Flow rate accuracy (nominal)	±5% over 96h or 10 litres, according to EN 60601-2-24 (with Medima Line IV sets)
Occlusion pressure	Downstream - 11 levels: 75 - 900 mmHg, automatic reduction of occlusion bolus. Graphic presentation of infusion pressure and set level (pictograms). Upstream occlusion detection.
Drop detector	Detachable, optional
Air detector	Ultrasound, programmable sensitivity: - single bubble: 0.05 ÷ 0.3 ml - accumulated: 0.1 ÷ 1.5 ml / 15 min.
Modes of operation	Model P Model P1, P2 ml/h, ml/min, ml/24h, l/h, l/24h, volume over time - automatic flow rate calculation (refers to all models) - ng, µg, mg, g, µU, mU, U, kU, nmol, µmol, mmol, mol / kg, -- / min, h, 24h - intermittent infusion - profile - 24 cycles
Additional functions	Automatic free flow protection Drug library with possibility to save up to 120 drugs dosing protocols (models P1, P2) with soft and hard limits for all infusion parameters (model P2) Drug library and configuration transfer from pump to pump Programmable infusion pause: 1 min - 24 h. Delayed start: 1 min - 24 h Programmed parameters and chosen functions protected by password Alarm volume adjustment and choice of sound type Night mode: tuning the display's brightness and alarm loudness, programmable time of start/end Simple fixing to Medima docking stations without removing the fixing clamp and without interruption of infusion. Embedded power supply Possibility to connect to hospital system through the MedimaNet system Open system: software update through RS232C
Alarms	No mains, battery low, battery empty, check IV set, check clamp, occlusion (upstream), occlusion (downstream), high pressure, line disconnected, flow too low, flow too high, 1 - 30 min to infusion end, infusion end, air in line, air in line (accumulated), no drop detector, drug not active, improper fixing, error xx, timer, battery disconnected
Event log capacity	Min. 2000 records with date and time of the event
Power supply	100 (- 15%) - 230 (+10%) VAC, 50/60 Hz, max 20 VA, 12-16 VDC, max 1 A
Battery	NiMH, capacity 2000 mAh, working time: 10 h / 25 ml/h, recharging time to 100% max 6 h
Interface	RS232C and IR link to the docking station
Nurse call connection	24V, 1 A, NO / NC
Dimensions	355 x 115 x 166 mm (W x H x D) - excluding pole clamp
Weight	Below 2.5 kg
Operating conditions	Temperature: +5 ÷ +40°C, max humidity 90%
Transport conditions	Temperature: -20 ÷ +50°C, max humidity 95%
Classification	Class I, type CF, defibrillation proof, IP 22
Safety standards compliance	EN 60601-1, EN 60601-1-2, EN 60601-2-24, MDD 93/42/EEC - IIb
Docking stations	Designed to accommodate 2, 4, 6 or 8 infusion pumps and a docking station designed for ambulances
Accessories*	RS232C cord, DC power supply cord, Nurse call cord Infusion stand for Medima infusion pumps and Medima docking stations fixing Duo holder for fixing and carrying two Medima infusion pumps Software packets: Medima User ToolBox, Medima Service ToolBox, MedimaNet network software Medima Line IV Sets

* Accessories are not standard equipment of pumps.

In pursuit of quality improvement and due to changing standards the information in this leaflet may be subject to change. Contact Medima Sp. z o.o. to verify the information.

Family of volumetric infusion pumps



INNOVATIVE ECONOMY
NATIONAL COHESION STRATEGY



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND

Project co-financed by the European Union from European Regional Development Fund

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Safe infusion systems

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Large and Easy-to-Read Display

Shows infusion rate, a drug name, power supply status, infusion pressure and other information. Data are readable from a considerable distance.

Intuitive User Interface

Identical for syringe and volumetric pumps, makes it easy to operate pumps even for beginners. Its numeric keyboard allows for fast and easy data input.

Easy Mounting of IV Sets

Our unique system for automatic IV set mounting ensures easy and reliable operation of the pump, shortening preparatory procedure. The pump displays messages which guide through the infusion starting procedure, facilitating pump operation even more.

Medima Line IV Sets

Ensure high dosing accuracy, even for prolonged infusions (up to 96 hrs). All IV sets include a free flow protection clamp to protect the patient against uncontrollable infusion. The free flow protection clamp closes automatically before the IV set is removed from the pump.

Infusion Safety

Infusion safety is the paramount feature of Medima pumps which are provided with numerous state-of-the-art solutions for the purpose. Intelligent air sensor incorporated in the Medima Line IV sets guarantees infusion safety and comfortable use of the pump by reducing the number of false alarms. Precise pressure sensors located up and down the pump allow to monitor progress of the infusion, alerting the medical personnel in case of any potential risk. The optional drop detector ensures extra safety of infusions.

Numerous Indispensable Functions

Infusion rate modification without stopping the infusion. Automatic and manual bolus, advanced infusion modes, comprehensive alarm system, occlusion bolus reduction, detailed event log, user's password, mounting on vertical and horizontal columns/rails, comprehensive configuration options, data transfer to PC or to the MedimaNet infusion monitoring system.

Drug Library

The library standardises drug dosing procedures, considerably reducing the risk of errors. The memory can store up to 120 drug dosing protocols with all indispensable infusion parameters, units as well as limits (soft and hard), in order to reduce the risk of overdose. Soft limits warn about exceeding the recommended values. Hard limits prevent from entering values from outside the pre-defined range. Using a drug library reduces also preparatory procedures for the infusion, and the medical personnel is not required to calculate doses into ml/h. However the drug library does not limit and does not hinder possibilities for simple infusion in ml/h.

Mounting in Docking Stations

Docking stations make it faster and easier to create infusion sets combined of a number of pumps, tailored to meet the requirements of a particular therapy. Medima docking stations are suitable for all Medima pumps, volumetric and syringe alike. Mounting pumps in docking stations is very easy and does not require dismantling any pumps elements - pumps are just slipped into the stations while the mains and communication ports connect to automatically. After their removal from docking stations, pumps are ready for conventional mounting. Moreover, docking stations allow to connect pumps to the hospital information system with the MedimaNet software.

Available models:

Medima P

The basic and very simple model, infusion in ml/h, ml/min and ml/24h. Calculation of infusion rate on volume and time. The possibility to save up to 120 drug names and to display them during infusion.

Medima P1

Apart from the capabilities of the P model, allows for infusion in all popular, used in medicine, units (e.g. mg/kg/h, kU/h). Advanced infusion modes such as infusion with profile and intermittent infusion. The possibility to save up a drug library containing maximum 120 drug dosing protocols but without limits on parameters.

Medima P2

Offers all capabilities of the P1 model. Additionally allows to save up a drug library with soft and hard limits for all infusion parameters.



Free Flow Protection Clamp

Automatically cuts off the flow before the IV set removal.

Syringe Pumps



Modern, easy to use and safe. A line of models offering a variety of options, from the simplest to the most advanced, including PCA. Together with volumetric pumps, they constitute a full range of products for drug and fluid infusion, offering uniform operating procedures.

Docking Stations



Designed to save valuable space around the patient's bed. Ensure fast and easy pumps mounting with automatic connection to the mains and communication ports (no additional cables needed). Optional LAN (Ethernet) connection allows for communication of pumps with the hospital information system (PDMS – Patient Data Management System). Available docking stations accommodate 2, 4, 6, 8 pumps.



Infusion Stands

Reliable and safe stands for infusion sets transport.