


RythmicTM



The
simple way to
ambulatory care

 **micrel**
Medical Devices

Experts in ambulatory infusion devices

Rythmic™

A family of ambulatory infusion pumps tailored by therapy...

Rythmic™ *Plus* indicated for :

Acute and chronic Pain management :

- Custom made menu with or without Bolus/Dose limit/Loading dose to fit therapy protocols and avoid set up errors
- Easy review of patient history thanks to the easy-to-read history menu on the pump graphical display or the handy portable printer

Continuous infusion therapies such as Chemotherapy, Cystic fibrosis, Primary Pulmonary Hypertension, IVIG...

- Simplified set up menu for a 3 steps start procedure : Enter Rate+Volume to infuse and Start infusion.



Mini Rythmic™ *PN* for Home Parenteral Nutrition (HPN)

- The air filter eliminator is positioned upstream the air detector to avoid repeated air alarms and related priming constraints
- Extremely compact and lightweight for such application: 390g with battery pack providing up to 3.5L of infusion at 400ml/h
- Extremely quiet

Rythmic™ *PCEA*

to reduce the risk of medication errors in Epidural and Intrathecal routes:

- A clear colour identification of the infusion route from the pump to the patient via a yellow coloured code along the infusion set
- A higher pressure limit range
- A range of dedicated transport bags for external container infusion



Ready to

connect

to www.micrelcare.net

“Instant access to
your patients' infusion data
through the web”



Rythmic™ connect

Remote control for home infusion therapies

■ Rythmic™ Connect

is a wireless, real time technology using a GPRS mobile phone associated to the infusion device. It enables the ambulatory Rythmic pump to communicate with a web server providing its infusion status on www.micrelcare.net

■ Physicians, nurses and homecare service providers

can access from anywhere the status of their patients' infusion through the web. Infusion parameters can be remotely controlled and potentially adjusted thus saving on the costs of nursing time.

@



SMS

■ Nurses receive SMS messages

based upon selected warnings or pre warnings, thus anticipating potential episodes according to the event log / status of the infusion.



■ Rythmic™ Connect linked to

www.micrelcare.net represents a unique and major step forward in the practice and management of the home care infusion therapies. It undoubtedly contributes to an improvement for the home patient's quality of life.



...the smart choice for safety and patient freedom

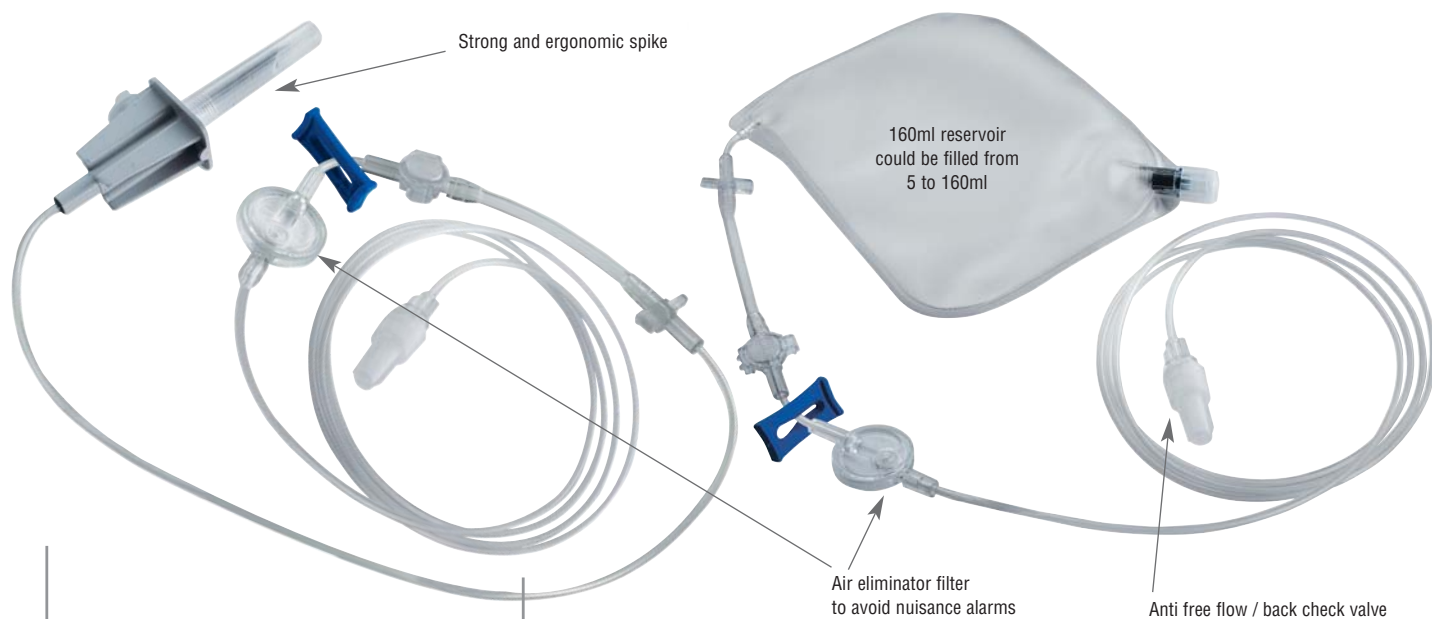
Rythmic is “Alarm free”

The pump has been designed to decrease most of unnecessary potential alarms whilst preserving full safety:

- No air alarm thanks to the air in line eliminator incorporated in all sets
- Automatic restart after occlusion release
- Long battery autonomy (7 days at 2ml/h) to decrease the frequency of battery alarms and related changes

Rythmic offers “All in one” innovative and safety infusion sets:

- All sets include all pre-assembled components thus avoiding additional unsafe connections
- Soft Bag convenient to fill and prime (manually or via the pump)
- In built anti free flow / back check valve, air eliminator, and extension line on all sets



Rythmic offers a real mobility to patients

- Small, ergonomic and compact for true and comfortable ambulatory therapies
- Pump size already includes the drug volume (up to 160ml)
- Lightweight: 290g with dry cell battery
- Outstanding battery autonomy

Rythmic is simple and intuitive to program

Customisation of the Rythmic according to the user protocol enables easy software programming. By reducing the menu to the minimum required parameters to be programmed, we optimize set up time and decrease potential errors. Rythmic software is available in 15 different languages.

| | Rythmic™ Plus and Mini Rythmic™ Plus | Rythmic™ PCEA | Mini Rythmic™ PN |
|---|---|---|---|
| Delivery modes | <ul style="list-style-type: none"> • continuous, • bolus only • continuous + bolus | <ul style="list-style-type: none"> • continuous, • bolus only • continuous + bolus | <ul style="list-style-type: none"> • continuous • Volume / time • Rate / time • auto ramp |
| Accuracy | +/- 5% | +/- 5% | +/- 5% |
| Flow rate | 0.1 to 100ml/hr | 0.1 to 100ml/hr | 0.1 to 400ml/hr |
| Programming units Concentration | ml/mg/µg 0.1 to 99.9mg/ml 0.1 to 999.9 µg/ml | ml/mg/µg 0.1 to 99.9mg/ml 0.1 to 999.9 µg/ml | ml/mg/µg 0.1 to 99.9mg/ml 0.1 to 99.9 µg/ml |
| Volume to infuse | 1 to 9999ml | 1 to 9999ml | 1 to 9999ml |
| Programmable infusion time | - | - | 10 min to 99hours |
| Auto ramp, up & down time | - | - | 1min to 9h59 |
| Bolus dose | yes | yes | - |
| Lockout interval | 0 to 999 minutes | 0 to 999 minutes | - |
| Special functions | Dose limitation over a period of time limitation of number of bolus per period of time loading dose; clinician bolus | | Early taper down Delayed start (up to 24 hours) flat rate titration |
| KVO | 0.1 to 2.0ml/hr | 0.1 to 2.0ml/hr | 0.1 to 20.0ml/hr |
| Automatic restart after occlusion release | Yes | Yes | Yes |
| Safety features | Air in line eliminator, free flow protection according to IEC 601-2-24 | | |
| Alarms | Occlusion, near end and end of infusion, low and depleted battery, open mechanism, preventive maintenance warning... | | |
| | dose limit, bolus limit, | | air bubble size 0.1ml; 0.5ml; 2ml; Off |
| Battery life | 7days at 2ml/hr with 9V alkaline | | with 9V alkaline:5hrs@300ml/hr or 3.5 L @ 400ml/h with battery pack:17hrs@300ml/hr |
| AC input | 11Vdc 500mA | 11Vdc 500mA | 11Vdc 500mA |
| Lock level | 3 | 3 | 3 |
| History, infusion graph / printout and PC download | Yes, including 1500 time stamped events event log | | |
| Weight and Size with battery | 290g 130mm x 133mm x 46mm including 160ml bag and locker Mini Rythmic:80mm x 130mm x 46mm including 60 ml reservoir and locker. | | 290g 80mm x 130mm x 46 mm |

| ACCESSORIES | |
|-----------------------------|--|
| Micrel Power adaptor | 120g, 2,5x8x5cm Input 230V /50Hz 90mA - Output 11Vdc 500 mA also used charger for battery pack |
| Battery pack | 100g, 2x5,5x10cm Li-Ion 1.2Ah - Fast charging 2 ^{1/2} hours (90%) with charge indicator |



Pole Clamp Rythmic - KS5.01.430
Pole Clamp Mini Rythmic - KS5.04.017
Pole Clamp Mini Rythmic PN
with Bag - KS5.04.016.x



Portable Printer with cable - KS5.04.014.x



Power Adaptor - KS5.01.415.x
UK Power Adaptor - KS5.04.010.x
12 Volt Car Plug Adaptor - KS5.01.521.x



Rucksack 4L - KM1.YY.335.x
Rucksack 2L - KM1.YY.364.x



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