



Safety



Connectivity



Mobility



# Rythmic™ Ultima





Rythmic™ Ultima XS Blue  
Rythmic™ Ultima S Blue  
Rythmic™ Ultima XL Blue

# Technical specifications

## Rythmic™ Ultima XS, S and XL (Blue)

| Model                              | REF   | Wifi | Cellular* | Dimension (W x H x D) | Weight |
|------------------------------------|-------|------|-----------|-----------------------|--------|
| Rythmic™ Ultima XS (Blue)          | 15103 | •    |           | 131 x 90 x 48 mm      | 398 g  |
| Rythmic™ Ultima XS (Blue) Cellular | 15104 | •    | •         |                       |        |
| Rythmic™ Ultima S (Blue)           | 15107 | •    |           | 131 x 140 x 48 mm     | 443 g  |
| Rythmic™ Ultima S (Blue) Cellular  | 15108 | •    | •         |                       |        |
| Rythmic™ Ultima XL (Blue)          | 15111 | •    |           | 129 x 298 x 78 mm     | 792 g  |
| Rythmic™ Ultima XL (Blue) Cellular | 15112 | •    | •         |                       |        |

\* 3G with 2G fallback

|                                    |  |  |
|------------------------------------|--|--|
| <b>Delivery modes</b>              |  • Continuous<br> • Bolus only   |  • Continuous + Bolus<br> • Programmed Automatic Bolus (PAB)   |
| <b>Flow rate and accuracy</b>      | 0.1 to 600 mL/h ± 5 %  |  |
| <b>Programming units</b>           | mL/mg/µg   |  |
| <b>Concentration</b>               | 0.1 to 99.9 mg/mL (0.1 mg/mL incr.) and 0.1 to 999.9 µg/mL (0.1 µg/mL incr.)   |  |
| <b>Volume to infuse</b>            | 1 to 9999 mL (1 mL incr.)  |  |
| <b>Patient bolus amount</b>        | 0 or from 0.1 to 60 mL (0.1 mL incr.) // 0.1 to 999.9 mg (0.1 mg incr.) // 0.1 to 999.9 µg (0.1 µg incr.)  |  |
| <b>Bolus rate</b>                  | from 20 to 600 mL/h (10 mL/h incr.)  |  |
| <b>Bolus lockout interval</b>      | 0 to 999 min (1 min incr.)   |  |
| <b>Safety features</b>             | <ul style="list-style-type: none"> <li>• Air in line eliminating filter</li> <li>• Anti-siphon valve in administration sets</li> <li>• Air detection</li> </ul>  | <ul style="list-style-type: none"> <li>• Lockable protective drug container cover</li> <li>• 3 code protected and configurable access levels</li> </ul>  |
| <b>Special functions</b>           | <ul style="list-style-type: none"> <li>• Drug library (up to 300 medication protocols)</li> <li>• Protocol list (up to 150 medication protocols)</li> <li>• Dose limit/x hours and Bolus limit/y hours</li> <li>• Loading dose</li> <li>• Clinician bolus override</li> </ul>  | <ul style="list-style-type: none"> <li>• Mandatory priming (enabled, warning only, disabled)</li> <li>• Automatic priming through the pump</li> <li>• Delayed start (up to 24 hours)</li> <li>• Lockable pump keyboard</li> <li>• Automatic restart after occlusion release</li> </ul> |
| <b>Connectivity features</b>       | <ul style="list-style-type: none"> <li>• 'Ready to connect' to <a href="http://www.micrelcare.net">www.micrelcare.net</a> for therapy monitoring</li> </ul>  | <ul style="list-style-type: none"> <li>• Wi-Fi and cellular</li> </ul>   |
| <b>Network features</b>            | <ul style="list-style-type: none"> <li>• Cellular connectivity via Micro SIM (Not included/in option)</li> <li>2G (GSM/GPRS): 900/1800 MHz</li> <li>3G (UMTS/HSPA): 900/2100 MHz</li> </ul>  | <ul style="list-style-type: none"> <li>• GSM/(E)GPRS - 900/1800 MHz (max. power 2 W)</li> <li>• 802.11b/g/n (2.4 GHz, max. power 0.1 W)</li> </ul>   |
| <b>Infusion monitoring</b>         | Pain scores (list & graph) // Bolus events (list & graph) // Patient bolus per hour (demanded & given) // Remaining time // Total amount and bolus amount infused // History // Computer downloadable // Connect to <a href="http://www.micrelcare.net">www.micrelcare.net</a> for remote therapy monitoring (cloud/web-based) |  |
| <b>Programming</b>                 | <ul style="list-style-type: none"> <li>• Direct manual programming</li> <li>• Programming using protocol libraries with safety limits, created in Infusion Library module of Micrelcare</li> </ul>   |  |
| <b>KVO</b>                         | 0 to 2.0 mL/h (0.1 mL/h incr.)   |  |
| <b>Priming rate &amp; time</b>     | max. 600 mL/h // Average time to prime a Full set is 10-15 seconds, to prime a Spike set is 8-10 seconds   |  |
| <b>Occlusion limits</b>            | 3 levels: low = 0.5 bar, medium = 1 bar, high = 1.5 bar  |  |
| <b>High priority alarms</b>        | Air in line // Battery depleted // Battery missing // Bolus key stuck // Device error // Door open // Up-Downstream occlusion // Infusion completed // Pump stop or running KVO // Key stuck // Pump unattended // Set misplaced   |  |
| <b>Low priority alarms</b>         | Battery low // Bolus handset disconnected // Date and time settings may be lost // Library data lost // Infusion near end // Preventive maintenance due // Pump cannot start // Pump settings lost   |  |
| <b>Air detector</b>                | Yes and adjustable air bubble size: 0.1 mL, 0.5 mL, 1 mL, Off  |  |
| <b>Event log</b>                   | 6500 time-stamped events   |  |
| <b>Preventive maintenance</b>      | Every 2 years (or 2500 litres of operation)  |  |
| <b>Power supply and autonomy**</b> | <ul style="list-style-type: none"> <li>• 2x AA Alkaline batteries (LR6): 350 hrs at 1 mL/h</li> <li>• Rechargeable battery (1400 mAh): 260 hrs at 1 mL/h, rechargeable in 3.5 h</li> <li>• Power supply mains: 100 to 240 V, 50-60 Hz, 170mA</li> </ul>  |  |
| <b>Applied standards</b>           | ISO 13485 // EN IEC 60601-1 // EN IEC 60601-1-2 // EN IEC 60601-1-8 // EN IEC 60601-1-11 // EN IEC 60601-2-24  |  |
| <b>Packaging content</b>           | Bolus handset // 2 x AA Alkaline battery // Instruction for use // Short instruction for use // Keys // XS, S: carrying case   |  |

\*\* Wireless connectivity disabled

# Rythmic™ Administration Sets

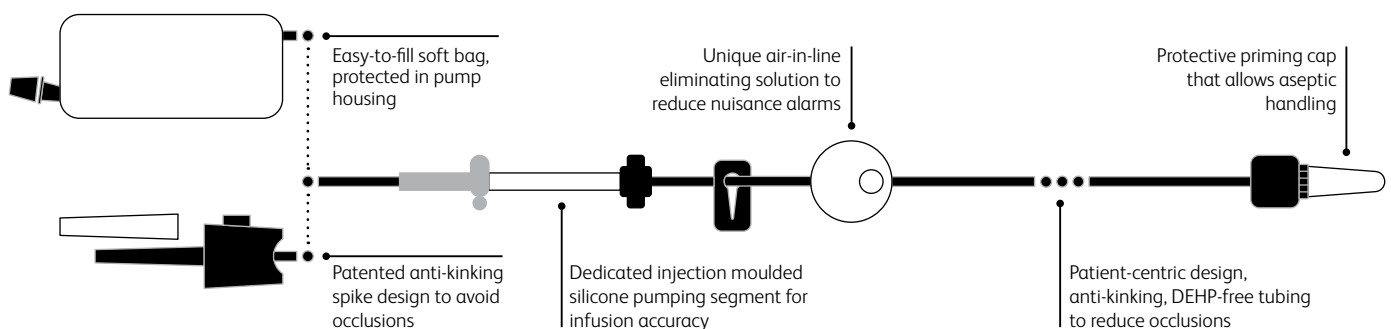
for Rythmic™ Ultima XS, S and XL (Blue)

| Set type   | REF  | Priming volume (ml) | Up-Downstream tubing length (cm) | Filter pore size (µm) | Units/box | Compatible with pump size                |
|--|--|---------------------|----------------------------------|-----------------------|-----------|--|
| <b>Mini Full Set 100 mL</b><br><b>Full Set 200 mL (fig.)</b><br><b>Full Set 250 mL</b>       | KE1.EE.177.0<br>KE1.EE.185.1<br>KE1.EE.352.1 | 1.9                 | -/150                            | 0.2                   | 20        | 100 mL: XS + S<br>200 mL: S<br>250 mL: S |
| <b>Y Mini Full Set 100 mL</b><br><b>Y Full Set 200 mL (fig.)</b><br><b>Y Full Sez 250 mL</b> | KE1.EE.195.1<br>KE1.EE.196.0<br>KE1.EE.354.1 | 2.9                 | -/150*                           | 0.2                   | 20        | 100 mL: XS + S<br>200 mL: S<br>250 mL: S |
| <b>Luer Set</b><br>Supports infusion from external third-party medication container          | KE1.EE.197.0                                 | 2.4                 | 60/150                           | 0.2                   | 20        | XS + S                                   |
| <b>Spike Set</b><br>Supports infusion from external third-party medication container         | KM1.EE.099.2                                 | 2.6                 | 60/150                           | 0.2                   | 20        | XS + S                                   |
| <b>Spike Set S</b><br>Supports infusion from external third-party medication container       | KM1.EE.155.1                                 | 2.6                 | 20/220                           | 0.2                   | 20        | XS + S + XL                              |
| <b>Spike Set S Y</b><br>Supports infusion from external third-party medication container     | KM1.EE.187.2                                 | 3.6                 | 20/220*                          | 0.2                   | 20        | XS + S + XL                              |

\* between filter and Y-site

- Third party containers can be connected via respective Rythmic administration sets (Luer sets and Spike sets) to be used with XS, S, or XL models
- XS model accommodates custom bags up to 100 mL, S model up to 250 mL, XL model up to 500 mL
- Full Set 250 ml variants: availability depending on market

## Set features for bag and spike sets



- Anti free flow, pressure activated and one-way check valve
- DEHP and Latex free
- Storage Temperature: 5 – 30° C
- Sterilisation: ETO
- Shelf life: 60 months

# Rythmic™ Accessories

Rythmic™ pumps should only be used with dedicated Rythmic™ accessories

## Rythmic™ XS Carrying Bag



- Weight: 132 g
- Dimensions (h x w x d): 14,5 x 10,5 x 5,5 cm

REF: 81074

## Rythmic™ S Carrying Bag



- Weight: 150 g
- Dimensions (h x w x d): 14,5 x 14,5 x 5 cm

REF: 81060

## Rythmic™ XL Carrying Shoulder Bag



- Weight: 1.200 g
- Dimensions (h x w x d): 33 x 20 x 9 cm

REF: KM1.YY.418.2

## Rythmic™ XS Carrying Shoulder Bag, 1000 mL



- Weight: 1.500 g
- Dimensions (h x w x d): 40 x 20 x 10 cm

REF: KM1.YY.563.1

## Rythmic™ XS Carrying Waist Bag, 250 mL



- Weight: 260 g
- Dimensions (h x w x d): 14 x 13 x 10 cm
- Capacity of the waist bag: up to 250 mL

REF: KM1.YY.506.2

## Rythmic™ XL Carrying Shoulder Strap

REF: KM1.YY.491.2

## Rythmic™ XS Carrying Shoulder Bag single use



- Weight: 8 g
- Dimensions (h x w): 10 x 14 cm

REF: KM1.YY.566.1

## Rythmic™ S Carrying Shoulder Bag single use



- Weight: 10 g
- Dimensions (h x w): 15 x 15 cm

REF: KM1.YY.547.1

## Rythmic™ XL Carrying Shoulder Bag single use



- Weight: 18 g
- Dimensions (h x w): 30 x 17 cm

REF: KM1.YY.548.1

## Rythmic™ Ultima/Serena Rechargeable Battery



- Weight: 33 g
- 1400 mAh

REF: 81070

## Rythmic™ Power Adaptor Plug



- REF:
- KS5.04.043.1 Type A (US)
  - KS5.01.615.4 Type C (EU)
  - KS5.04.021.2 Type G (UK)
  - KS5.04.041.1 Type I (AU)

## MicrelCom System (RS232 & USB)

- Compatible with all Rythmic™ pumps
- Connects the pump with the PC
  - Provided with USB to serial adaptor.

REF: KS5.04.046.1

## Bolus Handset Rythmic™ Ultima



Compatible with all Rythmic™ Ultima pumps, generates tactual (vibration) and visual feedback when requesting a bolus

REF: 81043

## Rythmic™ Pole Clamp



Compatible with Rythmic™ pumps XS & XL

- REF:
- KS5.04.017.5 (size XS)
  - KS5.01.524.3 (size XL)

Fig.: XS

## Rythmic™ Permanent Key



Compatible with all Rythmic™ Ultima XS, S pumps

REF: KM1.YY.595.1

## Rythmic™ Key Set



2 keys with ring and clip. Compatible with all Rythmic™ Ultima XS, S pumps

REF: KS5.01.190.1

## Rythmic™ Organizer 500/501 Keys

2 keys. Compatible with Rythmic™ Ultima XL pumps

REF: KS5.01.199.1



info@micrelmed.com  
www.micrelmed.com

Micrel Medical Devices S.A.,  
42 Konstantinoupolos,  
GR19441 Koropi, Greece

© 2025 Micrel Medical Devices S.A.  
Rythmic™ is property of Micrel Medical Devices S.A.  
All Rights Reserved

Elevating infusion care