### Alaris® VP plus Volumetric Pump



Dedicated Safety Disposables\*

#### Standard DEHP free sets with Alaris® safety and roller clamp

• 15 µm filter • \*27 ml • \*\*300 cm

• 1 lower SmartSite® needle free valve port • 15 µm filter

• \*24 ml • \*\*265 cm

• Light resistant • 15 µm filter • \*27 ml • \*\*300 cm

• 2 SmartSite® needle free valve ports • No filter • \*25ml

• \*\*265 cm

#### Neonatal and paediatric DEHP free sets with Alaris® safety and roller cla

• Burette (150ml) • 2 SmartSite® needle free valve port (1 on Burette) • No Filter • \*22ml • \*\*280 cm

• Low Priming Volume • 15 μm filter

70641 • Low Priming Volume • Light resistant • 15 μm filter

• Low Priming Volume • 2 Lower SmartSite® needle free valve ports • 0.2 um filter

#### Oncology DEHP free sets with Alaris® safety and roller clamp

• 2 Spikes, SmartSite® needle free valve port • 15 μm filter • \*26 ml • \*\*260 cm

 Quattro Set, 5 SmartSite® needle free valve ports • 15 µm filter • \*26 ml • \*\*285 cm

• Quattro Set, 5 SmartSite® needle free valve ports • Light resistant • 15 µm filter • \*26 ml • \*\*285 cm

**70951E** • Duo Set, 3 SmartSite® needle free valve ports •15 μm filter

• \*26 ml • \*\*280 cm

**70954E** • Duo Set, 3 SmartSite® needle free valve ports

• Light resistant • 15 µm filter • \*26 ml • \*\*280 cm

• 200 µm filter • \*29 ml • \*\*300 cm

• 2 Spikes Blood Set • 200 µm filter • \*30 ml • \*\*295 cm

#### Low sorbing DEHP free sets with Alaris® safety and roller clamp

• Low Sorbing set • 15 μm filter

• Low Sorbing set • 2 SmartSite® needle free valve ports

• 0.2 µm filter

#### Total Parenteral Nutrition DEHP free with Alaris® safety and roller clamp

• 2 SmartSite® needle free valve ports • 1.2 μm filter • Light resistant • \*27ml • \*\*275 cm

#### Secondary infusion (Piggy Back) DEHP free set

• 2 SmartSite® needle free valve ports • Backcheck Valve

• 15 µm filter • \*25ml • \*\*270 cm

#### All set have:

Proprietary Alaris® Safety clamp

In Line Pressure Monitoring sensor disk

\* Priming volume - \*\*Length of the set

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Alaris® VP plus Guardrails® Volumetric pump





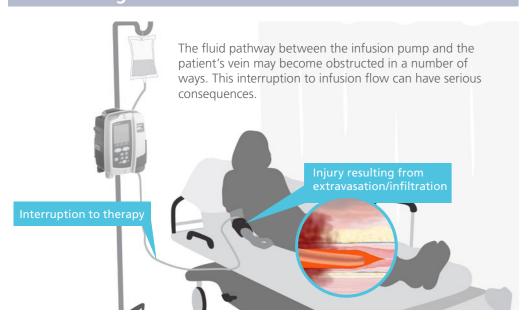






# Alaris<sup>®</sup> VP *plus* **Guardrails<sup>®</sup>** Volumetric Pump

#### Challenge of Infusion



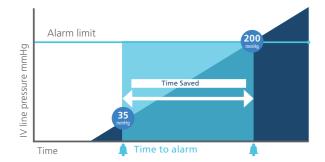
#### Consequences of interruption to flow\*:

- Plasma concentration of the drug may drop to subtherapeutic levels rapidly.
- Patients may suffer serious consequences when an extravasation of an irritant drug occurs.

\* non exhaustive

#### **Fast time to Alarm**





The earlier you are alerted to an infusion interruption, the earlier you can intervene. The time to an occlusion alarm is key when managing interruptions to flow and is dependent on pressure monitoring and alarm settings.

#### **Monitoring In Line Pressure**



Infusion monitoring information promotes increased vigilance and early intervention. Continuous monitoring of the infusion In Line Pressure trend can assist clinicians to identify early infusion pressure deviations. These deviations can prompt the need for early clinical intervention to prevent potential complications.

# Early Clinical Intervention with In Line Pressure Monitoring

- identify pressure trends that could indicate an emerging adverse event, minimising its potential consequences and any resultant costs
- maintain consistency of drug delivery, optimizing the therapeutic effects of IV therapy

# Guardrails CQI Best Practice Improvement

## MONITORING IN LINE PRESSURE TRENDS generates trending graphs to support early CareFusion infusion devices a broader medication safety

**TRENDS** generates trending graphs to support early clinical intervention.



CareFusion infusion devices are also part of a broader medication safety system. This includes the Guardrails Dose Error Reduction System which can assist clinicians to:

**Protect** from harmful IV medication error

Standardise drug protocols

Measure and Improve practice

#### **Smart Software\***

Customized software facilitating standardized drug protocols.



#### **Smart Pumps**

Infusion hard and soft limits, alerting to potential dosing errors.



#### Smart Practice\*\*

CQI reports providing clinical insight to support practice improvements.



#### **Smart Outcomes**

Consistent control of dose and rate limits.

Measureable improvements.

\* Available separately

## Alaris® VP *plus* Guardrails® Volumetric Pump Specifications

#### Rate Range

- 0.1 99.9 ml/h in steps of 0.1 ml/h 100 999 ml/h in steps of 1 ml/h
- 1000 1200 ml/h in steps of 10 ml/h

#### VTBI • VTBI over Time

• 1- 9999 ml

#### Rate Accuracy

• 5%, achieved under nominal conditions (See Directions For Use - DFU)

#### Bolus

- Bolus Rate: 10 1200 ml/hr, 10 ml/hr steps
- Bolus Volume displayed: 0.0 100 ml

#### 10/10

Rates: 0.1 - 20 ml/hr

#### **Secondary Infusion**

• 1 - 1200 ml/h in steps of 1 ml/h

#### Other features

 VTBI Done, Dose Rate Calculation, Patient Weight Range, Prime, NEOI, Titration, , Alarm ramping, Auto Set Pressure, Auto pressure, adjustable Audio Volume (low, medium & high), call back, standby mode, quiet mode, rate lock, drug override mode

#### **Alarms, Warnings & Prompts**

- Alert Indicators: red and amber
- Audible alarm and display messaging (List available in the DFU)

#### Air In Line detection

- Sensor: Ultrasonic
- Alarms: Single Bubble: 50μl, 100μl, 250μl or 500μl (configurable)
   Bubble accumulation: 1ml over a 15 minute window

#### Pressure

- Pressure detection: Direct In-line pressure measurement with sensor disc and Strain Gauge
- Occlusion alarm level settings: 1- 800mmHg in 1 mmHg steps

#### Patient pressure display

• Value in mmHg with 12.5 Hours pressure trend display graph

#### Drug

- Drug Names: 100 per profile
- Profiles: 30

#### Limits

Hard and Soft limits

#### Predefined bag size

• 3000ml, 2000ml, 1500ml, 1000ml, 500ml, 250ml, 200ml, 100ml, 50ml

#### Free flow protection

• All infusion sets incorporate the proprietary Alaris Safety Clamp

#### Display

• Large, wide angle LCD display • Legible up to 3 meters

#### Pumping Mechanism

#### • 12 Finger Peristaltic

#### Dimensions

- Weight: 2.6 kg
- 225mm (Height) x 148mm (Width) x158mm (Depth)

#### Power supply

• Voltage: 100 - 230VAC, 50 - 60Hz, 60VA (Maximum)

#### **Battery**

- Rechargeable NiMH
- Battery Life: 5.5 hrs @ 25 ml /h
- Recharge Time: 2.5hrs to 95% Battery Usage Indicator
- Battery Time: Battery charge level

#### Classification

• IPX3 • Class I, Type CF (Defibrillation-proof)

#### PDM interface

RS232 / IRDA

<sup>\*\*</sup> Multiple reports available