



## Exelia<sup>®</sup> SP

Syringe infusion pump

4.3" reactive colour touchscreen for high intuitivity and quick learning curve.

Rotary dial for fast and safe programming.

Pusher anti-bolus brake technology that reduces the risk of bolus at syringe installation.

Automatic pressure threshold setting and improved Dynamic Pressure System for fast occlusion detection even at low flow rates.

Up to 19 custom profiles for personalized device configurations.

Wide flow rate range from 0.01 to 1200 mL/h and an accuracy of +/- 3%.

## Infusion

### Flow rate range

- 0.01 mL/h to 30 mL/h with 1 mL syringes
  - 0.01 mL/h to 120 mL/h with 2/3 mL syringes
  - 0.01 mL/h to 250 mL/h with 5 mL syringes
  - 0.01 mL/h to 350 mL/h with 10 mL syringes
  - 0.1 mL/h to 600 mL/h with 20/30 mL syringes
  - 0.1 mL/h to 1200 mL/h with 50/60 mL syringes
  - 0.1 or 0.01 mL/h increment accessible by configuration
- Flow rate may be limited depending on drug selected (soft and hard limits) with Vigilant<sup>®</sup> Master Med (Dose Error Reduction Software)

### Flow rate accuracy

+/- 1% on mechanism, +/- 3% with syringes

### New pusher anti-bolus brake patented\* technology

that reduces the risk of bolus at syringe installation  
\* EP 2482871 A1, US 9770550 BB

### Syringe capacities

1, 2, 3, 5, 10, 20, 30/35, 50/60 CC

### Syringe brands

Compatibility with major syringe brands (e.g. BD Plastipak, B. Braun Perfusor, B. Braun Omnifix, Terumo, Codan, Pentaferte, Fresenius Kabi....)

### Infusion modes

- mL/h mode: Flow rate, Volume + Flow rate, Volume + Time, Flow rate + Time
- Dose rate mode/ TIVA mode: ng/h, µg/h, µg/min, mg/h, mg/24h, mg/min, g/h, mU/min, U/h, U/min, mEq/h, mEq/min, mmol/h, kCal/h, kCal/24h, ng/kg/h, ng/kg/min, µg/kg/h, µg/kg/min, mg/kg/h, mg/kg/24h, mg/kg/min, mg/m<sup>2</sup>/h, mg/m<sup>2</sup>/24h, g/kg/h, g/kg/24h, g/kg/min, mU/kg/h, mU/kg/min, U/kg/h, U/kg/min, mEq/kg/h, mEq/kg/min, mmol/kg/h, mmol/kg/24h, kCal/kg/h, mL/kg/h, mL/kg/24h, mL/kg/min, mL/min, mL/24h
- Dilution setting: -- units/mL or -- units/-- mL.  
With or without loading dose

### Volume to infuse

0.1 mL to measured syringe capacity

### Infusion duration

1 min - 96 h

### Priming

Rate: up to 1200 mL/h

### Direct bolus

Rate: 10 - 1200 mL/h (1mL/h increment), depending on syringe capacity

### Programmed bolus

- Volume: 0.01 mL - measured syringe capacity
- Dose: 0.001 - 999999 unit
- Duration: 1 sec - 2 hours
- Flow rate: 0.01 - 1200 mL/h

### Loading dose

- Volume: 0.01 mL - measured syringe capacity
- Dose: 0.001 - 999999 unit
- Duration: 1 sec - 2 hours
- Flow rate: 0.01 - 1200 mL/h

### End of infusion

KVO: adjustable from 0.1 to 5 mL/h

### Pause/Delayed start

From 1 minute to 24 hours, one-minute increment

### Events log

100 000 data events log time-stamped

### Night mode

The night mode decreases the brightness of the screen.  
The key beeps can be turned off.

### Profiles

- 19 custom profiles configurable with Vigilant Master Med, containing:
- Drug library: up to 3800 drug entries, with possibility to create up to 30 therapies for the same drug name
  - Device configuration

## Pressure management

### Pressure modes

- 3 modes available: automatic, variable or 3 pre-set levels
- Range from 50 to 900 mmHg

### DPS+

The Dynamic Pressure System warns of pressure variations  
A risk of obstruction or a possible leak in the infusion line can be anticipated

### Pressure monitoring

Graphic representation of the pressure in the infusion line and of the pressure limit thanks to the pictogram  
Current pressure in line always displayed for precise monitoring

### Bolus volume at occlusion release

< 0.09 mL (50 mmHg)  
-0.05 mL ≤ X ≤ 0.5 mL (900 mmHg)  
A controlled back flow pumping mechanism is provided to reduce the bolus volume at occlusion release: < 0.5 mL

## Functional alarms

Functional alarms signal events related to the infusion status or events that may impact the infusion

### High-priority alarms

Infusion relay broken, Empty syringe, End of volume, Wrong syringe installation, Occlusion, Battery empty

### Medium-priority alarms

Module incorrectly plugged, battery failure

### Low-priority alarms

Near end of volume, Near empty syringe, End of volume (when a KVO is programmed), Suspected occlusion, Drop in pressure, Long press on screen, Low battery (<30 minutes), Waiting for settings

### Technical errors

"Technical error x.y.z" is displayed in case the equipment malfunctions

## Technical specifications

### Display

4.3" Colour LCD touchscreen, size 95 x 54 mm

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### Alarms sound levels

Alarm priority (High, Medium, Low):

- Minimum sound level (dBA): approximately 54 dBA
  - Maximum sound level (dBA): approximately 70 dBA
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### Dimensions - Weight

- Dimensions (H/W/D): 83 x 350 x 161 mm
  - Weight: approximately 2.110 kg
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### Consumption and emissions

- Standard operating conditions: max 15 W (during battery loading)
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### Battery

- Characteristics: 10,8 V 3250 mAh - Li-ion Smart battery
  - Weight: approximately 150 g
  - Battery operating time (at 5 mL/h): 9 h
  - Battery recharge: Module OFF: < 5 h / Module ON: < 20 h
  - Battery replacement: the battery should be tested every 3 years
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### Material characteristics

ABS (main material).

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### Recycling and disposal

Batteries and devices must not be disposed of with general waste. For information on waste processing regulations and dismantling, contact your Fresenius Kabi sales representative

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## Compliance

### CE Mark

Regulation (EU) 2017/745, Class IIb

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### Electro-medical equipment safety

IEC 60601-1 (for Exelia system)

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### Alarm system

IEC 60601-1-8

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### EMC (Electromagnetic compatibility)

IEC 60601-1-2 (for Exelia system)

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### Particular standards

IEC 60601-2-24

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### Usability

IEC 60601-1-6  
IEC 62366-1

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### Index of protection against ingress of water or particulate matter

IP22

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