





# **Agilia**® SP TIVA

Syringe infusion pumps providing intuitive intravenous anaesthesia

Dose rate programmation for less risk of errors in prescription computation

TCI infusion mode

Wide flow rate ranging from 0.1-1200 mL/h and an accuracy of  $\pm$  3%

Adaptable to all protocols

Up to 19 drug libraries embedded

Easy and intuitive to use

Stand alone or rack mounted infusion pump with alarm

2 pressure modes and Dynamic Pressure System (DPS)

## Agilia® SP TIVA & Agilia® SP TIVA WiFi

### Infusion

### Flow rate range

0.1 - 1200 mL/h, depending on the syringe capacity (0.1 mL/h increment). 0,01 minimum increments instead of 0,1 mL/h is activated when the max patient weight is set to 20 kg in the drug library.

Flow rate can be limited according to drug name (soft and hard limits) with Agilia Vigilant Drug'Lib, IV Medication Safety System.

### Flow rate accuracy

± 1% on mechanism : ± 2 % on syringes.

### Syringes capacities

5, 10, 20, 30/35, 50/60, CC.

### Type of syringe

Up to 100 types

### Infusion Modes

- · mL/h mode.
- •Dose rate modes: ng/h, ng/kg/min, ng/kg/h, µg/min, µg/h, µg/kg/min, µg/kg/h, mg/min, mg/h, mg/24h, mg/kg/min, mg/kg/h, mg/kg/24h, mg/m²/ h, mg/m<sup>2</sup>/24h, g/h, g/kg/min, g/kg/h, g/kg/24h, mmol/h, mmol/kg/h, mmol/kg/24h, mU/min, mU/kg/min, mU/kg/h, U/min, U/h, U/kg/min, U/kg/ h, kcal/h, kcal/24h, kcal/kg/h, mEq/min, mEq/h, mEq/kg/min, mEq/kg/h, mL/kg/h, mL/kg/24h, mL/kg/min.
- TCI infusion mode: Effect or Plasma mode.
- Dilution setting: -- units / mL or -- units / -- mL.
- · With or without loading dose.
- Volume or dose / time: 0.1 99.9 mL; 00 h 01 96 h 00.
- Volume limit: 0.1 999 mL.

### **TCI Mode**

Pharmacokinetic Models

- ·Marsh & Schnider for Propofol administration on adults.
- Kataria & Paedfusor for Propofol administration on pediatrics.
- ·Minto, Gepts & Scott for Remifentanil, Sufentanil and Alfentanil. administration in adults Targets: TCI Effect or Plasma control Modes.

Volume/Dose infused Volume: 0.1 - 999.9 mL / Dose: 0.1 - 999.999 units.

### Priming

3 modes: mandatory, not mandatory, or advised / Rate: 1200 mL/h.

Direct bolus: Rate: 50 - 1200 mL/h (50 mL/h increment) Programmed bolus (dose or volume / time): 0.1 - 99.9 mL; 0,1 - 9999 units

### Loading dose

Dose or volume / time: 0.1 - 99.9 units / 00 min 01 - 59 min 59 rate autocalculation.

### End infusion (V/T & VL)

KVO: adjustable from 0.1 to 5 mL/h, continuous infusion or stop.

Not mandatory prime set by default resulting in fast start if user does not prime with bolus button ensuring programmed flow rate to be reached faster.

### **Pause**

Programmation from 1 minute to 24 hours, increments from minute to minute.

1500 data log events in real time.

### **Graphical history**

Volume / dose infused, pressure, flow rate.

The night mode decreases the brightness of the screen and the green lights. The key beep can eventually be turned off. The night mode can be programmed manually or automatically in a variable time range.

Basic profil: infusion without any display of the drug names. 19 Custom profiles configurable with Agilia Vigilant Drug'Lib: Drug library to be created with Agilia Vigilant Drug'Lib. Configuration only: Custom pump configuration without Drug Name

### Pressure management

2 modes available: variable or 3 pre-set levels - Range from 50 to 900 mmHg. (25 mmHg increment from 50 to 250 mmHg / 50 mmHg increment from 250 to 900 mmHg). Can be enables / disabled and adjusted.

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

### Pressure monitoring

Graphic representation of the pressure in the infusion line and of the pressure limit thanks to the pictogram.

Reduces significantly bolus after occlusion release. ≤0.35 mL max for a 50 mL syringe.

### Alarms / Pre-alarms / Security

### Pump status

GREEN for infusion in progress, ORANGE for Low and Medium priority, RED for High priority - Visibility at 4 meters minimum. All alarms are expressed by means of light indicators, written words, pictograms and sound beeps.

### Syringes installation control

Syringe barrel clasp check, plunger head detection, anti-siphon system check, flange detection.

Occlusion pressure pre-alarm, occlusion pressure alarm, end of infusion pre-alarm, end of infusion alarm, volume limit pre-alarm, volume limit alarm, hard and soft flow rate limits, start infusion at pause end.

Disengaged driving mechanism alarm, low battery pre-alarm, discharged battery alarm, battery capacity display in hours and minutes, unconfirmed programming, technical malfunction alarm (auto-test, rotation), drive system advance check, watchdog check, communication connection failure, plug-head disengagement, auto-lock/lock code (on Keypad).

Preventive maintenance warning.

### Technical specifications

### Manual pusher

Protection for the ongoing infusion thanks to "Push-Guard"

Blue graphic LCD monochrome, size 66 mm x 33 mm (256 x 128 pixels).

### Swinglock clamp

Versatile clamp that allows the fixation on a rail or on a pole (Pole: 20-40 mm max. / Rail:  $25-35 \times 10$  mm).

### Stackability

Up to 3 devices self-stackable on a pole.

### Dimensions (h/w/d) / weight

135 X 345 X 170 mm / ~ 2.1 kg.

Characteristics: 7.2 V 2.2 Ah - Li-ion Smart battery, remaining battery life and battery charge level available on the display.

- Battery Life (when fully charged): Agilia SP TIVA and Agilia SP TIVA WiFi (WiFi disabled / not used)
- > 13 h at 5 mL/h.
- Agilia SP TIVA WiFi (WiFi enabled) > 9 h at 5 mL/h.

- Battery recharge: Pump OFF: < 6 h.
- Pump ON: < 20 h.

### Waterproofness

IP22.

Power supply  $100 \text{ V} - 240 \text{ V} \sim /50 / 60 \text{ Hz}$  with functional earth.

### Compliance

### Electromagnetic compatibility

EMC IEC 60601-1-2, IEC 60601-2-24

### **Medical Device Directive**

CE 0123 marking in compliance with the Concil Directive 93/42/EEC

### **Electrical Compliance**

Protection against leakage current: Defibrillation-proof type CF Protection against electric shocks: class II in accordance with IEC 60601-1

### Alarm system

IEC 60601-1-8

**Usuability Engineering** IEC 60601-1-6 and IEC 62366

### Wireless LAN (For Agilia SP TIVA WiFi only)

**Technology** IEEE 802.11 a/b/g/n. Frequency Band: 2.400  $\Rightarrow$  2.500 GHz (2.4 GHz is ISM band) / 4.900 -> 5.850 GHz (High Band).

**Modulation**OFDM with BPSK, QPSK, 16-QAM, and 64-QAM 802.11b with CCK and DSSS.

### **Wireless Security**

WPA/WPA2-Entreprise, WPA/WPA2-PSK.

### Network Protocols TCP,

IPv4, DHCP, HTTP. CE, FCC and IC compliant.

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