

STACKABLE TARGET CONTROLLED INFUSION SYRINGE PUMP



ESP- 3000 stackable syringe pump is designed for delivery of anesthetic drugs by target controlled infusion (TCI) according to pharmacokinetics and pharmacokinetics and the experience in clinical use. It makes use of the integration of the technology of micro-processor control and precise manufacture. It is available for performing an intravenous analgesia infusion.

Functions and Features:

A. Operation modes: Plasma target controlled infusion mode, Effect site target controlled infusion mode and Constant flow rate infusion mode.

1) **Plasma target controlled Infusion** mode enables users to set the target plasma concentration.

2) **Effect site target Controlled Infusion** mode enables users to set the target effect site concentration.

The pump delivers drugs to maintain the desired concentration according to the pharmacokinetic model. The infusion rates are altered automatically.

3) **Constant flow rate infusion** mode: It enables the users to control the infusion by setting the flow rate. There are seven flow rate units of available such as ml/h, mg/h, ug/h, mg/kg/h, mg/kg/min, ug/kg/h, ug/kg/min.

4) **TIVAI mode** (Total Intravenous Anesthesia Infusion Mode): enables the user to control the infusion by setting the capacity, the time need for the initial infusing capacity and the maintaining infusion rate. When the initial infusing is finished, the infusion rate will change to maintaining rate automatically.

5) **Volume & time infusion** mode: It enables the users to control the infusion by setting the desired volume and the desired time to be infused.

- B. Bolus function:** help patients to past the stimulative phase safely and steadily.
- C. KVO function:** automatically start the KVO (keep the vein open) infusion when the normal infusion stopped.
- D. Alarm and Warns:** when something abnormal occurs, the pump can give out audible alarm and warning information such as AC power failure, battery low, drug near empty, drug empty, occlusion, end of infusion, syringe disengaged, forget operation, infusion rate abnormal, motor abnormal, pushfit error etc.
- E. Modular Design,** designed for both stationary and mobile use freely. The pumps can be assembled to a unit to save room or it mounted independently.

Specification:

- Range of Flow rate:**
- 5ml syringe: 0.1~150ml
 - 10ml syringe: 0.1~300ml/h;
 - 20ml syringe: 0.1~600ml/h;
 - 30ml syringe: 0.1~900ml/h;
 - 50(60)ml syringe: 0.1~1200ml/h;

Suitable Syringe: all the syringe in the standard capacity set 5ml, 10ml, 20ml, 30ml, 50(60)ml can be used in the pump by custom syringe's setting.

Accuracy: ±2%

Pill Dosage and Occlusion Threshold:

Pressure level	Low 300±100mmHg	Medium 500±150mmHg	High 900±200mmHg
Reaction Time	≤10 minutes	≤20 minutes	≤35 minutes
Pill Dose	≤1ml	≤1.5ml	≤2.5ml

Bolus Rate: 300ml/h

Display: A large screen (192×64 pixel), rotary setting with convenient operation interface.

Power Supply: AC:100V ~ 245V、 50 ±1Hz

Battery: The battery can use for more than 5 hours after charged for 10 hours

Input power 30-45 VA

Operating Conditions:

Safety standard: Class IIb (CE standard) complies with
 EN60601-1-2:2001, EN60601-1:1990+A1:1993+A11:1993+A12:1993+A2:1995+ A13:1996;
 EN60601-2-24:1998, ISO8536-8:2004

Ambient Temperature: +5°C ~ +40°C;

Relative Humidity (RH): 30 % ~ 75 %

Atmospheric Pressure: 860 ~ 1060hPa

Dimension (mm): 214(L)×134(W)×94(H)

Weight: 2.2kg

Safety Classification: Class IIb(CE Standard)



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