

# **ESP-1000TCI** Single Channel TCI syringe pump

**NFUSION LINE** 





## ESP-1000TCI

Single Channel TCI syringe pump

#### Description

ESP-1000 TCI (target controlled infusion) pump is a kind of intellectualized automatic infusion device, which is designed for delivery of anesthetic drugs by target controlled infusion (TCI) mode according to the 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.

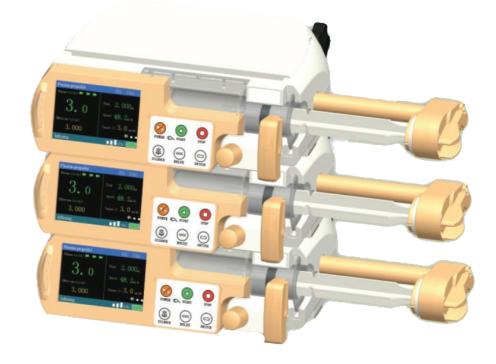
It is applicable to all the inpatient surgical anesthesia and endoscopic examination, sedation of ICU patients etc. It is characterized by accurate infusing, sufficient function and simple operation.

#### Functions

- Simple to operate
- LCD color display
- History infusion data can be saved
- Abnormal flow rate alarm, assure every accurate infusion
- WiFi module

#### Infusion mode:

Plasma TCI mode Effect-site TCI mode Infusion pump mode: Bolus & Infusion mode Intermittent infusion mode Volume and Time infusion mode Continuous-flow infusion mode







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#### **Functions and Features**

- A. Operation modes: Plasma TCI (target controlled infusion) mode, Effect site TCI (target controlled infusion) mode and Constant flow rate infusion mode.
- 1) Plasma TCI (target controlled Infusion) mode enables the users to set the target plasma concentration.
- 2) Effect site TCI (target Controlled Infusion) mode enables the 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.

- B. Available drugs: Fentanyl, Alfentanil, Sufentanil, Midazolam, Propofol, Etomidate, Vecuronium, Atracurium, Rocuronium, Remifentanil, Ketamine.
- C. Automatic compensation for drug when the infusion is paused and maintain the Plasma or Effect site concentration required.

Advanced intelligence, recovery time forecast function, which helps the doctors to stop the infusion at the right time.

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, push fit error etc.

Power adapter	Input: 100-240V~, 50 - 60Hz, 1.5A
	Output: DC 15V, 1.2A
	Input power: 25-30VA
DC input	DC 15V, 1.2A
	Built-in rechargeable lithium battery: DC 11.1V, 2200mAh
Speed range	
	5ml syringe: 0.1-150.0ml/h;
	10ml syringe: 0.1-300.0ml/h;
	20ml syringe: 0.1-600.0ml/h;
	30ml syringe: 0.1-900.0ml/h;
	50(60)ml syringe: 0.1-1200.0ml/h.
Infusion precision	$\pm$ 2%; the precision was obtained from the infusion at 1.0ml/h or higher for over two hours.

#### **Technical parameter**





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Bolus rate	50ml/h-1200ml/h adjustable (at a step of 50ml).
	This range shall not exceed the maximum speed supported by the
Blocking	8 levels are available:
	L1: (200±60) mmHg; L2: (300±60) mmHg; L3: (400±80) mmHg
	L4: (500±80) mmHg; L5: (600±100) mmHg; L6: (700±100) mmHg
	L7: (800±100) mmHg; L8: (900±100) mmHg;
Continuous work time	≥5h
for the battery supply	
Safety classification	Equipment with class-II CF application unit and built-in battery 回 💽 ; enclosure protection: IP 55.
Data memory function	Power-off save for at least 5 years;
Sound pressure	45dB -75dB
Working conditions	a) Environment temperature: +5°C- +40°C;
	b) Relative humidity $\leq$ 90%;
	c) Atmospheric pressure: 700hPa~1060hPa.
Conditions for	a) Transportation: violent impact, shocks, rain and snow shall be
transportation	avoided during transportation.
and storage	<ul><li>b) Environment temperature: -20°C- +55°C;</li></ul>
	c) RH range: 10% - 93% ;
	d) Atmospheric pressure range: 500 hPa-1060hPa; product
	e) Store it in a well-ventilated room without corrosive gas.
Product features	1. It is classified as non-AP/APG equipment regarding the safety level of
	using it in the presence of flammable anesthetic gas mixed with air
	or oxygen or nitrous oxide;
	2. Its running mode is continuous operation; it has no application
	unit to prevent defibrillation discharge effect; the product is
	equipped with RS232 signal input/output unit;
	3. It is not permanently installed equipment.
Size	Length × width ×height: 378mm×172mm×118mm
Weight	2.2kg



