中红医疗
ZHONGHONG PULIN

MedRena

For better infusion

UniFusion VP50 Pro Infusion Pump



Safety

- High accuracy: ±5%
- Double air bubble detect
- Double pressure detect
- Anti-bolus function
- DERS(Drug error reduction system)
- IP level: IP34
- 9 hours battery back-up time



Friendliness

- 4.3" colour touch screen
- Intuitive operation system
- Stackable design

CE 0197

NMPA
National Medical Products Administration

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Physical Specifications

Weight	1.4kg
Size	199mm(W)*126.5mm(H)*111mm(D)
Screen	4.3-inch TFT full-color touch screen
Handle	Standard foldable handle
Stackable	Free stack between pumps without any auxillary tools
Brightness	1-10 levels adjustable
Sound volume	1-10 levels adjustable
Infusion Display	**Large font display:** key infusion parameter clearly visible from 5 meters away **Display Information:** System Information: IV set brand, IV set size, Lock screen status, Name of drug selected, Battery capacity remaining **Infusion information:** Rate, VTBI, Remaining time, Total volume infused, Real-time occlusion pressure, Alarms, etc. **Touchscreen button:** Start/Stop, Bolus/Purge, Menu
Pressure sensor	Up & down pressure sensors
Air bubble sensor	Up & down air bubble sensors
Door lock	2
Door sensor	1

Parameters Specifications

Accuracy	Rate≥1ml/h, accuracy≤±5%
Mode	**8 infusion modes** (Rate mode, Time mode, Body-weight mode, Drip mode, Drug library mode, Ramp up/down mode, Loading dose mode, Sequence mode)
Infusion rate	0.10-1500ml/h, (minimun step is 0.01ml/h)
Minimum flow rate increment	0.1ml/h(0.1-99.99ml/h) 0.1ml/h(100-999.9ml/h) 1ml/h(1000-1500ml/h)
Drip mode range	1-500 drops/min(Depends on tubing size)
Bolus	0.10-1500ml/h, minimun step is 0.01ml/h
Purge rate	1500ml/h
KVO rate	0.00-5.0ml/h(default 1ml/h)
Micro mode range	precise infusion control for newborns, special drugs, small-dose administration etc 100-1500ml/h
VTBI	0.01-9999.99ml, minimun step is 0.01ml
Total Volume Infused	0.00-9999.99ml, minimun step is 0.01ml
Body-weight	0.1-300.0kg
Volume (Fluid amount)	0.01-9999.99
Conc.unit (concentration unit)	ng/min, ng/h, ng/kg/min, ng/kg/h, ug/min, ug/h, ug/kg/min, ug/kg/h, mg/min, mg/h, mg/kg/min, mg/kg/h, g/min, g/h, g/kg/min, g/kg/h, U/min, U/h, U/kg/min, U/kg/h, IU/min, IU/h, IU/kg/min,IU/kg/h, KU/min, KU/h KU/kg/min, KU/kg/ h, IE/min, IE/h, IE/kg/min, IE/kg/h, mol/min, mol/h, mol/kg/min, mol/kg/h, mmol/min, mmol/h, mmol/kg/min, mmol/kg/h, kcal/min, kcal/h, kcal/ kg/min, kcal/kg/h
Dose unit	ng/ml, ug/ml, mg/ml, g/ml, U/ml, IU/ml, KU/ml, IE/ml, mol/ml, mmol/ ml, kcal/ml
Time	1min-99hrs59min
Air bubble detector level	7 levels(50ul-800ul seclectable),default level 1(50ul) Detects single bubbles (50ul) and accumulated bubbles
Occlusion detection	Level: 1-12 levels selectable, default level8: 600mmHg Range: 75mmHg-900mmHg 4 pressure units selectable: mmHg, kPa, PSI, Bar
Anti-bolus	Motor automatically reverse while the IV tube with high pressure. Automatic drop line pressure to reduce bolus impact after occlusion.
Records	More than 5, 000 history records
Treatment records	No less than 20 treatment records, one-click selection of historical treatment records for quick infusion initiation
Drug library	No less than 2000 drugs
Screen lock	Screen lock methods: manual, automatic Auto-lock time 15s-30 minutes selectable; ON/OFF switchable
Night Mode	After turning on this mode switch, night mode will automatically turn on or off at the set time
Standby mode	Range: 00: 01s—99hrs: 59min

Alarms

Type	Picture, sound,text, light to show the alarm information in a variety of ways
Alarm Levels	**3 levels** **High:**Pressure high, Check upstream, Battery empty, VTBI infused, KVO finished, Drop error, Air bubble, No battery and No power supply, Door open, System error **Middle:** Pressure near threshold, Pressure drop, Standby time expired, Occlusion pre alarm Accumulated air, Drug dose limits exceeded **Low:** VTBI near end, Battery nearly empty, No battery inserted, Battery in use, Pump idle alert, Drop sensor connection, Check IV set
Pump Idle Alert	2min, 5min, 10min, 15min, 20min, 30min

Connectivity

Communication	Wired/wireless
USB	Support drug library import, Data export, Software upgrade, brand import, Nurse call, Drop sensor
Wireless	WiFi module(optional)
IrDA	IrDA module(optional)
Relay	Available(optional)
DERS(Dose Error Reduction System)	Standard
DPS	Occlusion pre alarm and pressure drop alarms(Standard)
Connectivity to HIS/CIS/other 3rd party platform	Supported
Titration	Standard
Optional accessories	DC power cord, Drop sensor

Battery

Operating time	Specification: 7.4V 2500mAh Standard: 4.5hrs, optional:9hrs (@25ml/ h)
Charging time	Standard: ≤2.5hours, optional: ≤5 hours
Power supply	AC: 100-240V, 50/60Hz DC: 12V, 2A
Electric protection	Class I
Ingress protection	IP34

Working Environment

Operating	Temperature: 5-40℃ Humidity: 15-95%, no-condensable Atmospheric pressure: 57-106kpa
Transport & Storage	Temperature: -20-55℃ Humidity: 10-95%, no-condensable Atmospheric pressure: 50-106kpa