

Feel you, Assist you

## AP-30 Syringe Pump



Medication Usage  
**Assistant**

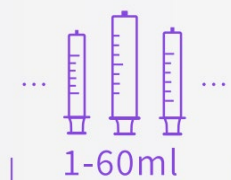
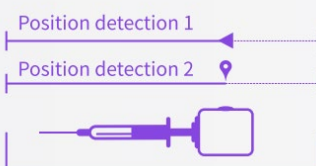
Efficiency Boosting  
**Assistant**

Safe Delivery  
**Assistant**

Built-in  
**DoseControl**

Information  
Management  
**Assistant**

- Built-in DoseControl function, a professional drug library solution
- 7.0 inch capacitive touch screen
- Customized display, Detail view and Virtual view
- Automatic syringe loading, reduce loading steps and improve work efficiency



Unique double position detection system

Full-range syringe compatibility

Ingress Protection by IP44

Specifications

|                    |                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------|
| Dimension          | 270 mm × 73.5 mm × 150 mm (W x H x D)                                                                          |
| Weight             | < 1.7kg (including battery)                                                                                    |
| Classification     | Defibrillation proof type CF, IP44                                                                             |
| Compatible syringe | Various brands of 1ml, 2ml, 3ml, 5ml, 10ml, 20/30ml, 50/60ml syringes compliant with ISO 7886-1 and ISO 7886-2 |
| Screen             | 7.0 inch capacitive touchscreen, brightness 10 levels adjustable, Auto-Brightness supported                    |

Basic Parameter

|                                    |                                                                                                                                                                                                                                                                                              |                                                                                                                     |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Infusion mode                      | Rate mode, Weight mode, Time mode, Micro mode, Sequence mode, Loading Dose mode, Trapezia mode, Intermittent mode, Chronological mode, Combination mode, PCA mode (optional), PCEA mode (optional), PCS mode (optional), PIEB mode (optional), TIVA mode, TCI mode (optional), and Feed mode |                                                                                                                     |
| Infusion rate range                | 0.01-50.00 ml/h (1ml syringe)<br>0.01-300.0ml/h (5ml syringe)<br>0.10-1200ml/h (20ml syringe)<br>0.10-2500.0ml/h(50/60ml syringe)                                                                                                                                                            | 0.01-150.00ml/h (2/3ml syringe)<br>0.10-800.0ml/h (10/12ml syringe)<br>0.10-1800.0ml/h(30ml syringe)                |
| Minimum increment of infusion rate | 0.01-99.99ml/h (minimum increment 0.01ml/h)<br>100.0-999.9ml/h (minimum increment 0.1ml/h)<br>1000-2500ml/h (minimum increment 1ml/h)                                                                                                                                                        |                                                                                                                     |
| VTBI range                         | 0.01~9999.99ml (minimum increment: 0.01ml)                                                                                                                                                                                                                                                   |                                                                                                                     |
| Preset time                        | 00:00:01~99:59:59 (minimum increment: 1s)                                                                                                                                                                                                                                                    |                                                                                                                     |
| Total volume display               | 0.00~99999.99ml (minimum increment: 0.01ml)                                                                                                                                                                                                                                                  |                                                                                                                     |
| Accuracy                           | Infusion accuracy $\leq\pm 1.7\%$ Mechanical accuracy $\leq\pm 0.5\%$                                                                                                                                                                                                                        |                                                                                                                     |
| KVO rate                           | 0.10~5.00ml/h (minimum increment: 0.01ml/h)<br>Adaptive KVO available, can adjust KVO rate according to the infusion rate                                                                                                                                                                    |                                                                                                                     |
| Bolus & Purge rate                 | 0.01-50.00 ml/h (1ml syringe)<br>0.01-300.0ml/h (5ml syringe)<br>0.10-1200ml/h (20ml syringe)<br>0.10-2500.0ml/h(50/60ml syringe)                                                                                                                                                            | 0.01-150.00ml/h (2/3ml syringe)<br>0.10-800.0ml/h (10/12ml syringe)<br>0.10-1800.0ml/h(30ml syringe)                |
| Bolus VTBI                         | 0.10-1.0 ml (1ml syringe)<br>0.10-3.0ml (3ml syringe)<br>0.10-10.0ml (10/12ml syringe)<br>0.10-30.0ml(30ml syringe)<br>Minimum increment for all: 0.01ml                                                                                                                                     | 0.10-2.0ml (2ml syringe)<br>0.10-5.0ml (5ml syringe)<br>0.10-20.0ml (20ml syringe)<br>0.10-50.0ml (50/60ml syringe) |
| 4 bolus ways selectable            | Automatic/Manual/Semi-Auto/Last bolus                                                                                                                                                                                                                                                        |                                                                                                                     |
| Occlusion level                    | 1ml syringe: 975mmHg.<br>2ml, 3ml, 5ml, 10/12ml, 20ml, or 30ml syringe: 0~1200mmHg, 16 levels are available for selection<br>50/60ml syringe: 0~975mmHg, 13 levels are available for selection                                                                                               |                                                                                                                     |

## Alarm

### Visual & acoustic alarm

Patient-side OCCL, BAT Empty, Infusion End, KVO End, Relay Failed, Syringe Empty, Syringe Installation ERR, Holder ERR, Syringe Claw ERR, Drive Head ERR, Drive Head Position ERR, Pre OCCL, Tube Off, Relay Fail Soon, Overheating, Reminder Alarm, Station Comm. Error, Monitor Comm. Error, No AC Power, No Battery, Syringe Near Empty, Infusion End KVO Start, No Heater, PCA Controller Removed, Dose Limit Exceeded

## Power supply

|                   |                                                                            |
|-------------------|----------------------------------------------------------------------------|
| AC power          | 100 -240 V AC, 50/60 Hz, power consumption 45 VA                           |
| External DC power | 10 - 15.1 V, 3 - 1.88 A                                                    |
| Internal battery  | Lithium battery 10.8 V, 3000mAh                                            |
| Battery duration  | 15 hours @5ml/h with a new battery<br>13 hours @125ml/h with a new battery |
| Charging time     | No longer than 4 hours (the pump is powered off during the charge)         |

## Special function

|                                  |                                                                                                                                                                                                                                                        |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rate change in infusion          | Infusion rate can be changed anytime during infusion, no need to stop the infusion                                                                                                                                                                     |
| Relay function                   | Continuous infusion among multiple pumps, guarantee non-stop therapies for sensitive drugs. Support single drug relay and multi drug relay                                                                                                             |
| Drug library<br>DoseControl mode | Built-in drug library with Dose error reduction system<br>Support maximum 40 profiles (clinical care area) and 12000 drugs<br>Maximum 1000 drugs in every profile (clinical care area)<br>Programmable drug library information and pump configuration |
| Screen lock                      | Both Manual screen lock and Auto screen lock are available                                                                                                                                                                                             |
| Screen display                   | Infusion parameters shown on the screen can be customized<br>The virtual syringe view is supported to illustrate the running infusion process.                                                                                                         |
| Anti-Bolus                       | Anti-Bolus function available, unintended bolus $\leq 0.1\text{ml}$                                                                                                                                                                                    |
| Auto-Restart                     | Pump will auto-restart when occlusion is released                                                                                                                                                                                                      |
| Repeat alarming                  | Alarm sounds again in 2 minutes if there is still alarm after alarm is muted                                                                                                                                                                           |
| Event recording                  | Maximum 10000 events can be stored for review                                                                                                                                                                                                          |
| Sound Volume                     | 10 levels selectable                                                                                                                                                                                                                                   |
| Syringe installation             | Auto Installation                                                                                                                                                                                                                                      |
| Touch sense (Optional)           | The pump gives vibration response to taps on the screen (optional)                                                                                                                                                                                     |
| Lumin sense (Optional)           | Enable brightness sensing                                                                                                                                                                                                                              |
| Ambulance                        | EN1789                                                                                                                                                                                                                                                 |

## Connectivity

|                         |                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>WiFi / Wired</b>     | To connect central infusion monitoring system, nurse caller                                                  |
| <b>Barcode scanning</b> | Patient information input by barcode scanner                                                                 |
| <b>Data interface</b>   | Supported USB 3.0, IrDA port, Bluetooth(Optional), Wi-Fi(Optional), Port Hub (optional) , Aviation Connector |
| <b>Protocol</b>         | HL7                                                                                                          |

## Mounting

|                               |                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------|
| <b>Inside docking station</b> | Supported                                                                       |
| <b>Between pumps</b>          | Stackable between any AP series syringe / infusion pumps produced by Medcaptain |
| <b>Built-in Handle</b>        | Available                                                                       |
| <b>Pole clamp direction</b>   | Can be mounted at different directions, 90°/180°/270°/360°                      |

## Safe requirement

|                             |                                                                                                                     |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Operating conditions</b> | Temperature: 5°C to 40°C      Humidity: 15% to 95% RH, non-condensing<br>Pressure altitude: 57.0 kPa – 106.0 kPa    |
| <b>Storage conditions</b>   | Temperature: -20°C to +55°C      Humidity: 10% to 95% RH, non-condensing<br>Pressure altitude: 22.0 kPa – 107.4 kPa |



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