MDKmed MS-31
Syringe Pump

Technical Data

Function spectrum

	2.8" TFT Color and Touch Screen
	Horizontal flat and compact design with anti-corrosion material
	Online titration function: change flow rate during infusion with increment 0.01ml/h
	Occlusion Pressure: 9 levels range adjustable
	Automatic calculation of the delivery rate based on different modes
	Anti-bolus function for the safety of patients
	Infusion pause/standby: preset parameters remain stored
	Recognize syringe brands and size from 2ml to 60ml automatically
	Both audible and visible alarm, and 9 level alarm adjustable
	Smart occlusion removal: rotate reversely to release the infusion line pressure
	WiFi function

Physical specification

W x D x H:	270 x 140 x 80 (mm)
Net Weight:	1.5 kg
Classification:	Type CF, Class II, IPX2

Display

Screen:	2.8" TFT touch color LCD
Brightness:	1-9 levels adjustable
Information:	System time, infusion mode, IV set brand, battery capacity, infusion status, remaining time, VTBI,
	total volume, pressure limit, alarms, TVI, drugs
Mode:	Daytime mode and night time mode interchange automatically

CPU type

CPU type	Dual-CPU (ARM Cortex)

Syringe selection

	2ml, 5ml/6ml, 10ml, 20ml, 30ml, 50/60ml
	Automatic recognition of syringe size and fixation
	Customize and Calibration more than 4 brands of syringe by user
	Can be installed and calibration new brand by Manufacturer

Basic parameters

Mode:	8 modes: Rate mode, V-T, R-T, R-V, Drug Library mode, Body Weight mode, Relay mode, Gradient mode
Flow rate:	2ml: 0.01-100ml/h, 5ml: 0.01-150mlh, 10ml: 0.01-400ml/h, 20ml: 0.01-600ml/h,
	30ml: 0.01-1000ml/h, 50/60ml: 0.01-2100ml/h
Increment:	0.01ml(0.1-99.99ml/h), 0.1ml(100-999.9ml/h), 1ml(1000-2100ml/h)
Preset time:	00:01-99:59 (hh:mm)adjustable
KVO(keep vein open):	0.01-3.0ml/h
Purge:	0.01-2100ml/h (depending on syringe size)

Accuracy

	±2% (Recommended Syringe)

Bolus

Bolus rate:	Automatic/Manual Bolus: 0.01-2100ml/h (depending on syringe size)
Preset bolus volume:	Automatic bolus: 0.10-9999.99ml

Automatical Bolus:	0.01-3.0ml/h
Language	2 languages: English, Chinese (Support increase Multiple Languages)
Safety system	
Occlusion pressure:	Pressure unit: KPa
	9 level occlusion pressure, 26kpa(±20kPa)~130kpa(±30kPa)
Alarm	
Alarm type:	Visual and acoustic alarms
	Syringe size error, Plunger error, Occlusion alarm, VTBI complete alarm,
	Out of battery alarm, Battery/mains power double disconnect alarm, Malfunction alarm,
	Pause over time alarm, Internal battery low voltage alarm, Injection near to end alarm.
Alarm volume:	1-5 levels selectrable
Battery:	
	Charging Time: ≤4 hours. for 100% of the capacity
	Working Time: ≥7 hours @5ml/h
Power supply	AC power: 100-240V~, 50/60Hz; DC power: 10-15V, 2A
Environmental requirement	
Temperature:	5℃~40℃ for Operating; -30℃~55℃ for Storage
Humidity:	20%~90% for Operating; ≤75% for Storage
Air pressure:	80.0kPa~106.0kPa
Water-proof:	IPX2
Lifetime	>5 years under continuous duty conditions
Drug Library	
Programmable:	It can program drug list according to customer request
	Drug Library should program by customer according local regulation and clinic demands.
	Drug Library: 200 drugs / Event logs: 200 cases *(Can extand to 2,000 drugs/cases)*