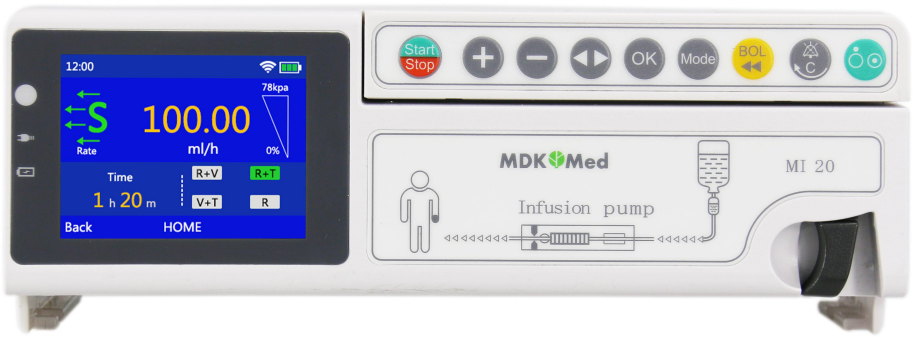
Techincal Data of MI20 Infusion Pump



BAISC PARAMETERS

Dimensions	215mm×129mm×80mm(width x depth x height)
Weight	1.5 Kg
Power Adaptor rate voltage and frequency	A.C100V～240V 47-63Hz 0.7-0.35A， D.C15V 1.66A A.C. input 100V～240V 47-63Hz 0.7-0.35A, D.C. output 15V 1.66A
Input voltage to infusion pump	D.C：15V
Power	<55VA
Requirements for infusion sets	See Section 11: CAUTIONS FOR USING DISPOSIBLE INFUSION SET
Maximum flow rate	1800（ml/h）

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MAIN PERFORMANCE

Range of flow rate setting ）	0.01-1800ml/h， with resolution 0.01ml/h；
Flow rate accuracy (Essential Performance)	±3%
VTBI range	0.01~9999.99ml， with resolution 0.01ml
Infusion volume accuracy (Essential Performance)	±3%
Purge speed	1ml/h～1800ml/h；±20%；
Occlusion alarm(pressure) (Essential Performance)	High: 100kPa ± 30kPa middle 60 kPa ± 20kPa Low: 40kPa±20kPa
Maximum infusion pressure	>160kPa
Time to activate the occlusion alarm; max bolus (Essential Performance)	Minimum flow rate: occlusion alarm is activated when pressure is within 40kPa±20kPa for 13 minutes, or when pressure is within 100kPa±30kPa for 14 seconds. Intermediate flow rate: occlusion alarm is activated when pressure is within 100kPa±30kPa and the bolus produced is less or equal than 0.3ml. (Jerry infusion set is used to create occlusion at the end of infusion line during verification test.)
KVO flow rate	KVO=3ml/h when flow rate⩾10ml/h; KVO=1ml/h when flow rate ⩾ 1ml/h and <10ml/h; KVO=the set infusion flow rate when flow rate <1ml/h.
Recover time after the recoverable	1min50s～2min

alarm sound is cleared.	
Time for pause over time alarm.	1min50s～2min
High priority alarm (Essential Performance)	Door open alarm, occlusion alarm, VTBI complete alarm, air in line alarm, out of battery alarm, battery/mains power double disconnect alarm, malfunction alarm.
Classification	Class II Type CF, capacity infusion pump with internal power source for continuous operation
Environmental Requirement	Operation Temperature: 5℃~＋40℃; Storage relative humidity: ≤75%; Operating relative humidity: 20%～90%; Barometric pressure range: 80.0kPa～106.0kPa.
Product lifetime	5 years.

IMPORTANT FEATURES

High accuracy: The accuracy for both infusion flow rate and volume are kept within 3% when the MDK recommended infusion set is used.

High flow rate: Infusion flow rate can be adjusted from 0.1ml/h to 1800ml/h in a continuous manner, which makes MI 20 capable of meeting various flow rate requirements in different infusion cases.

Small size: Just 6.8cm tall and 1.5kg in weight, MI 20 is not only very small in dimension but also very light.

Stackable: MI 20 pump is stackable. It can also be stacked with MS31 syringe pump for operation. The miniature design of MI 20 is a room saver for the wards where space is very limited. It can also be inserted onto an MX infusion work station as an infusion unit.

Easy operation: Operator can use the touch screen on MI 20 to set parameters, which will still function with gloves on. A key pad is also available to ensure usability in different usage scenarios.

Powered free-flow clamp: MI 20 has a powered free-flow clamp that saves several steps in the infusion set installation process. To complete the installation process, the operator only needs to straighten the infusion set with both hands, clamp it at two ends, and close the pump door.

Upstream occlusion alarm: MI 20 has upstream occlusion alarm in addition to downstream occlusion alarm. When infusion bag is running out or the free-flow clamp

is not turned on by mistake, the embedded internal pressure sensor will detect these problems automatically and an alarm will be initiated accordingly.

Fast installation: Patented QuikMount system, which requires only one click to complete the pump installation.

External power source: An external power adapter is used, which not only removes the safety concerns of using an internal power source but also makes the device lighter, safer, and more portable.

High battery capacity: The rechargeable internal high-capacity Lithium battery can support normal operation for 7 hours, which is conveniently helpful during patient transport or power outage.

Highly secure STM32 microcontroller: dual-CPU architecture design.

No false alarm in air-in-line detection: Based on ultrasonic technology and with the help from a unique algorithm, the air-in-line detection is accurate and reliable, which eliminates false alarms.

LCD screen: A 2.8-inch TFT LCD display offers high contrast and visibility, which is sharp and clear even from a distance of 5 meters away.

Smart occlusion removal: When the infusion line is occluded, the stepper motor will rotate reversely to release the pressure accumulated in the infusion line after it has been occluded.

MAIN AND FREQUENTLY USED FUNCTIONALITIES

Set infusion flow rate, set VTBI, and display real-time data;
Display the already infused volume;
Purge/bolus;
Alarms;
Automatically change the flow rate to KVO rate after the VTBI complete alarm is activated;
Temporary mute for alarm sound and timer for recovering alarm sound;
Automatic free-flow stopping function;
Display the TVI;
Clear the TVI data;
Support various brands of infusion sets;
Internal battery;
External DC adapter;
Wi-Fi connectivity.