

mRidium™

3850 MRI IV Pump

Safe MRI infusion through smart technology

Operates with 0.2 to 3.0 Tesla MRI System

The MRI suite is a harsh place for medical devices, and proper patient care requires carefully designed equipment.

Maintaining safe infusion delivery is critical and the **mRidium™ MRI IV Pump** system with its unique non-magnetic ultrasonic motor provides safe dependable fluid delivery, free of hazards which other infusion pumps may present.



Features

- Intuitive Smart IV Pump Technology
- Integrated Dose Rate Calculator
- Ease of use, conventional “look and feel”
- Large LCD display providing highly visible and explanatory feedback
- Unique “Bypass” IV set allows for minimal waste of fluids and quick safe patient transfer to the mRidium™ MRI IV Pump
- Highly flexible – Modular design
- Expandable to a second channel
- Non-volatile memory retains each operating step and alarm up to 5000 entries
- Operates on extra long life LiPolymer battery
- Non-magnetic components permits safe operation up to 10,000 Gauss
- Integrated set based free flow protection

Designed for MRI Safety

Iradimed Corp. has vast experience in MRI safe Products. Our founder is the pioneering developer of the world's first and best selling MRI compatible monitoring system. Our staff has a combined 60+ years developing MRI safe products. The mRidium™ 3850 MRI IV pump and systems, comprehensively meet the needs of MR safe IV fluid delivery with added features such as wireless remote control, Bypass Set, Syringe Adapter Set, and second pump channel "Side Car."



3855 mRidium™ Wireless Remote Control

The 3855 Wireless Remote allows for complete control and monitoring of the mRidium™ MR IV pump from locations in or outside of the magnet

room. The MR safe wireless link relays all commands and display information bi-directionally between the 3850 MR IV pump and the 3855 Remote Control. Utilizing the same user interface and large bright display as the mRidium™ Pump, the Remote Control allows adjustment of all pump parameters, rates, dose, volume, pump run/stop, alarms adjust or reset, as well as real time titration. The Wireless Remote also serves as a charger for the mRidium™ battery pack or a spare. It utilizes an MR proven 2.4 GHz FH spread spectrum radio technology for easy installation and image artifact free operation.

1057 mRidium™ Vented Syringe Adapter

The mRidium™ Syringe Adapter IV Set allows delivery of IV fluids directly from a 10 to 50 cc Syringe. The special vent port permits complete accuracy of flow from syringe born IV fluids at low to high flow rates. Ideal for Anesthesia and pediatric drug delivery, with low prime volume of 4 mL.



Designed for Ease of Use

mRidium™ has been created with user ease a top priority. Everyday demands in MRI are stressful enough; new equipment needs to be easy to operate and quick to setup. mRidium™ utilizes a typical IV pump look and feel along with a large LCD display which provides highly visible

Specifications

VOLUMETRIC INFUSION PUMP FOR USE IN THE MRI

ELECTRICAL CHARACTERISTICS

HI/LO Line Voltage Requirements	100 to 240 VAC +/-10%, 50/60 Hz
Power Sources Available	Internal battery power with separate AC charger/power supply
Power Consumption	< 18 Volt-Amperes @ 120 VAC nominal at 125 mL/hr (<36 VA maximum during charging)
Battery Type	Rechargeable Lithium Ion Pack, 14.8 v at 5.8 Ah
Battery Capacity	> 12 Hours at ≤125 mL/hr Rate
Battery Charge Time	< 9 hours to 95% capacity
Battery Cycle Life	> 300 charge/discharge cycles
Leakage Current	< 20 µA RMS (Patient), < 200 µA RMS (Chassis)
Chassis Ground Impedance to Earth Ground	< 0.2 ohms (with power supply)

MECHANICAL CHARACTERISTICS

Dimensions D x W x H, Total Weight	6 x 8 x 9 Inches, < 10 LBS
Temperature Range	+10° to +44° C (Operating), -40° to +75° C (Storage)
Relative Humidity Range	0% to 80% RH, non-condensing
Pole Clamp Mounting (Pole Diameter) Range	1 to 1.5 inch diameter

PERFORMANCE CHARACTERISTICS

Flow Rate Range - 0 to 999 mL/hr	INFUSION PUMP PERFORMANCE 1 to 99.9 mL/hr in 0.1 mL/hr increments, 100 to 999mL/hr in 1mL increments
Flow Rate Display Range	1.0 to 99.9, 100 to 999 mL/hr
Flow Rate Accuracy	+/- 3%
Volume To Be Infused (VTBI) Range	1 to 999 mL
Total Volume Infused (VI) Range	0.1 to 9,999 mL
Keep Vein Open (KVO) Rate Range	Adjustable, 1 to 5 mL/hr
Downstream (proximal) Occlusion	1 to 10 psi, user-adjustable, +/- 10% Detection Range
Occlusion Detection (no flow) Time	Typically < 30 sec, dependent on selected Flow Rate
Inlet Pressure Detector	Detects inlet side occlusions and IV source empty
Air-in-Line Detection Method	Ultrasonic bubble detector, > 100 µL

MRI PERFORMANCE

MRI Magnet Compatibility	0.2 to 3.0 Tesla MRI Systems
Magnetic Field Limit	10,000 Gauss line (1T magnetic field line) - Minimal ferrous material used inside Pump (<5 grams); non-magnetic motor used inside Pump
Compliance with Standards	IEC 60601-1-1, IEC 60601-1-2, AAMI ID 26, IEC 60601-2-24, and UL 2601

and explanatory feedback. The learning curve will be quick and easy. Further, with our unique mRidium™ Bypass IV set, switching from a patients' existing non-MRI IV pump is quick and simple with minimal waste of fluids.

Designed for Flexibility

Expand the mRidium™ to a second channel by adding the optional "Side Car" pump head module, providing a dual channel pump with a single user interface and control point.

Pole mount the mRidium™ to easily move between the patient prep area, to the MRI, to the scanner, while running on the extra long life LiPolymer battery.

- **The MR Artifact free, 3T compatible mRidium™ 3850.**

Deliver critical IV fluids in MRI easily and safely.
mRidium™ 3850 MRI IV Pump from Iradimed Corp.



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