

Inline Direct Injection

A Revolution in Mobile Anesthesia

MADM™ is the world's first inline direct injection anesthetic vaporiser. Connect it to any ventilator and instantly you can deliver gas anesthesia, safely and accurately, anywhere your mission takes you. **MADM™** works by measuring anesthetic in the inspiratory limb of the breathing circuit, calculating how much liquid anesthetic to inject and vaporise, and delivering that into the circuit to produce the concentration set for the patient.

MADM™ works with transport ventilators and resuscitation bags in austere environments. It can also be placed into a circle system ventilator circuit safely, automatically reducing the anesthetic injected to compensate for vapor returning from the ventilator.

► Features

Anesthetic Agents & Ranges:

Isoflurane: 0 - 3.5%
Sevoflurane: 0 - 5%

Monitors:

Agent Selection / Anesthetic Concentration
Delivered / End Tidal Anesthetic
Concentration / RR / PICO₂ / PETCO₂ / V_E



► Specifications

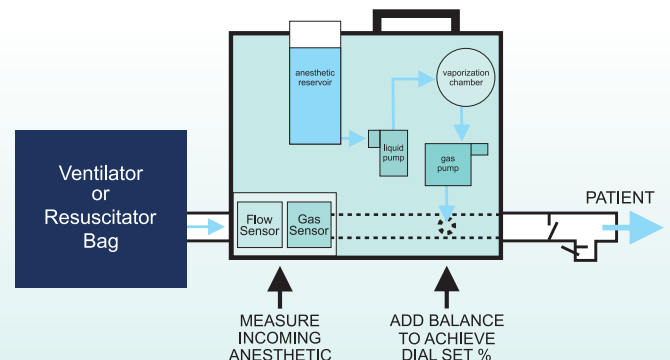
Weight: 3 kg (7 lbs.) – includes power supply
Dimensions: 20 cm (8") L x 13 cm (5") W x 18 cm (7") H
Temp-Operating: 10 °C to 40 °C (50 °F to 104 °F)
Temp-Storage: -20 °C to 50 °C (-4 °F to 122 °F)
Humidity: 15% - 95% RH non-condensing
Altitude: 0 – 3.0 km (10,000 ft.)
Power: 100-240 VAC 50/60 Hz + internal battery safety backup + optional standalone hot-swap battery base power supply.

Compliance: IEC 60601-1 IEC 60601-1-2
IEC 60601-1-8 ISO 80601-2-13
IEC 80601-2-55 ISO 5360

MAD+M™

ANESTHESIA DELIVERY MODULE

US and International Patents Issued and Pending



MADM™ with Transport Ventilator



MADM™ with Resuscitator Bag



**THORNHILL
MEDICAL**
INSPIRING INNOVATION