

# MD4000 Electronic Flow and Pressure Controls

MARSH MEDICAL



Crafted for peak performance in medical devices, the **MD4000 Electronic Flow and Pressure Controls** seamlessly integrate sensors, command signal scaling, and valves ensuring unparalleled precision. Whether employing analog command signals or the digital MODBUS RTU interface, the MD4000 effortlessly adapts for meticulous control. Customize your analog output to align with setpoint, remote sensor, or output values, all with the flexibility of forward or reverse action. The MD4000 accommodates space constraints with manifold or DIN tray mounting options. You can also opt for an integrated mechanical pressure regulator for improved flow control, along with the choice of a non-relieving function (no exhaust valve) for pressure control. With flow ranges reaching 6 lpm, the MD4000 Series adds versatility to cutting-edge medical solutions.

## FEATURES

- Pressure and/or Flow control
- Dual valves with on board sensor for pressure control
- Single valve with on board flow sensor for flow control
- Stable PID control
- RS-485 serial communication w/ MODBUS RTU protocol
- Analog Input: 0-5VDC, 0-10VDC or 4-20mA
- Analog Output: 0-5VDC, 0-10VDC
- Auxiliary input for second loop feedback downstream
- Proportional operation
- Manifold or DIN tray mounting
- Proprietary computer software for full access to remote monitoring and setup
- Optional on board mechanical regulator for flow control
- +24VDC or +12VDC supply options

## FOCUS MARKETS/APPLICATIONS

- Ventilators
- Anesthesia Systems
- Pulmonary Function Testing Equipment
- Neurodiagnostic Devices
- Oxygen Concentrators

## COMPETITIVE ADVANTAGES

- 0.5% accuracy full scale (pressure)
- 2.0% accuracy full scale (flow)
- Proportional valves do not need to fully close as often, reducing wear and extending life
- Closed loop feedback provides stability and precision
- Optional mechanical regulator allows higher maximum input pressure



## TECHNICAL DATA

Series	MD4000
Maximum Supply Pressure	101 PSIG
Output Range (others available upon request)	0 - 3 PSIG 0 - 15 PSIG 0 - 30 PSIG 1 - 60 PSIG 2 - 100 PSIG
Temperature Range	-40 to 180°F
Sensitivity	1/4"W.C.
Flow Capacity @ 100 PSIG Supply and 20 PSIG Outlet	25 SCFM / 6 lpm
Effect of Supply Pressure Variation (100 PSIG) on Outlet Pressure	± 0.2 PSIG
Air Consumption	< 10.0 SCFH Maximum
Port Sizes	1/4", 1/8" NPT, BSPT, BSPP
Dimensions	2.5" x 2.5" x 5.75"
Weight	1.0 lb.
Mounting Options	Pipe, Panel, or Bracket
Wetted Materials	Aluminum Copper Alloys Nickel Stainless Steel Buna-n FKM Silicon

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