



MODEL 204A

The Porter Instrument Models 202A, 203A and 204A Mass Flow Controllers accurately control flow rates up to 1000 slpm N₂ with low differential pressure. This is accomplished by incorporating a unique spring-loaded diaphragm/orifice design with a solenoid-operated pilot valve. The normally closed valve configuration adds an important margin of safety.

MODEL 202A

Flow Range: Any range from 0-10 slpm to 0-100 slpm N₂. (Consult factory for correct sizing)
Length (less fittings): 5.241 inches
Width: 1.875 inches
Height: 5.647 inches (card edge electrical connector) or 5.270 inches (D-type electrical connector)
Maximum Operating Pressure: 200 psig

MODEL 203A

Flow Range: Any range from 0-100 slpm to 0-500 slpm N₂.
Length (less fittings): 6.299 inches
Width: 2.500 inches
Height: 6.272 inches (card edge electrical connector) or 5.895 inches (D-type electrical connector)
Maximum Operating Pressure: 200 psig

MODEL 204A

Flow Range: Any range from 0-500 slpm to 0-1000 slpm N₂.
Length (less fittings): 6.299 inches
Width: 2.500 inches
Height: 6.272 inches (card edge electrical connector) or 5.895 inches (D-type electrical connector)
Maximum Operating Pressure: 200 psig

SPECIFICATIONS ALL MODELS

- Response Time:** 2 seconds
- Accuracy and Linearity:**
 - ± 1% full scale (all models except Models 114 and 204A)
 - ± 1.5% full scale (Models 114 and 204A)
- Repeatability:** ± 0.2% full scale
- Control Range:**
 - 50:1 (2%-100% full scale)
- Temperature (Ambient and Operating):**
 - 10 to 70°C (14 to 158°F)
- Temperature Coefficient:**
 - 0.1% / °C
- Pressure Coefficient:**
 - 1.0%/Atmosphere
- Input Setpoint Voltage:**
 - 0-5 Vdc
 - (for 0-5 Vdc output signal)
 - or 1-5 Vdc
 - (for 4-20 mAdc output signal)
- Electrical Connector:**
 - card edge (20-Pin) or
 - D-type (9-Pin)
- Power Requirements:**
 - Card Edge Electrical Connector:**
 - +15 Vdc < 25 mAdc (flowmeter and flow controller)
 - 15 Vdc < 25 mAdc (flowmeter)
 - or < 300 mAdc (flow controller)
 - D-type Electrical Connector:**
 - +15 Vdc < 75 mAdc (flowmeter)
 - or < 250 mAdc (flow controller)
 - 15 Vdc < 25 mAdc (flowmeter and flow controller)
- Output Signal:**
 - 0-5 Vdc (2K ohm minimum load impedance)
 - or 4-20 mAdc (non-floating/ground-referenced)
- Mounting Orientation:**
 - attitude insensitive
- Warm-up Time:** 10 minutes

Specifications subject to change.