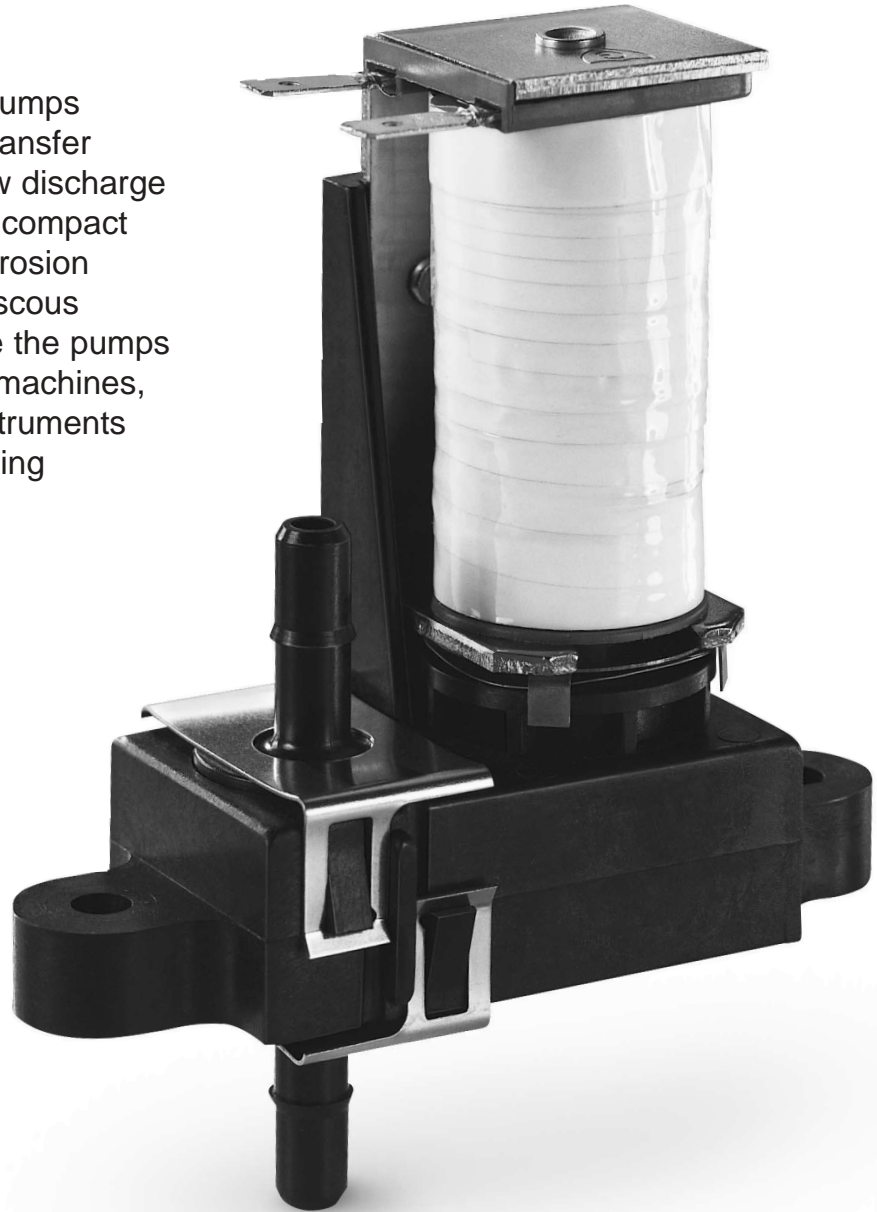


Piston Diaphragm *Pumps*

Piston diaphragm pumps are positive displacement pumps designed to economically transfer small volumes of fluid at low discharge pressures. The lightweight, compact pumps are self-priming, corrosion resistant and can handle viscous fluids. These features make the pumps ideal for high-volume copy machines, scientific and laboratory instruments and other chemical dispensing applications.



Features:

- Economical
- Self-priming
- No dynamic seals
- No backflow
- Continuous duty rated
- Corrosion resistant
- Dry run capability

Operation:

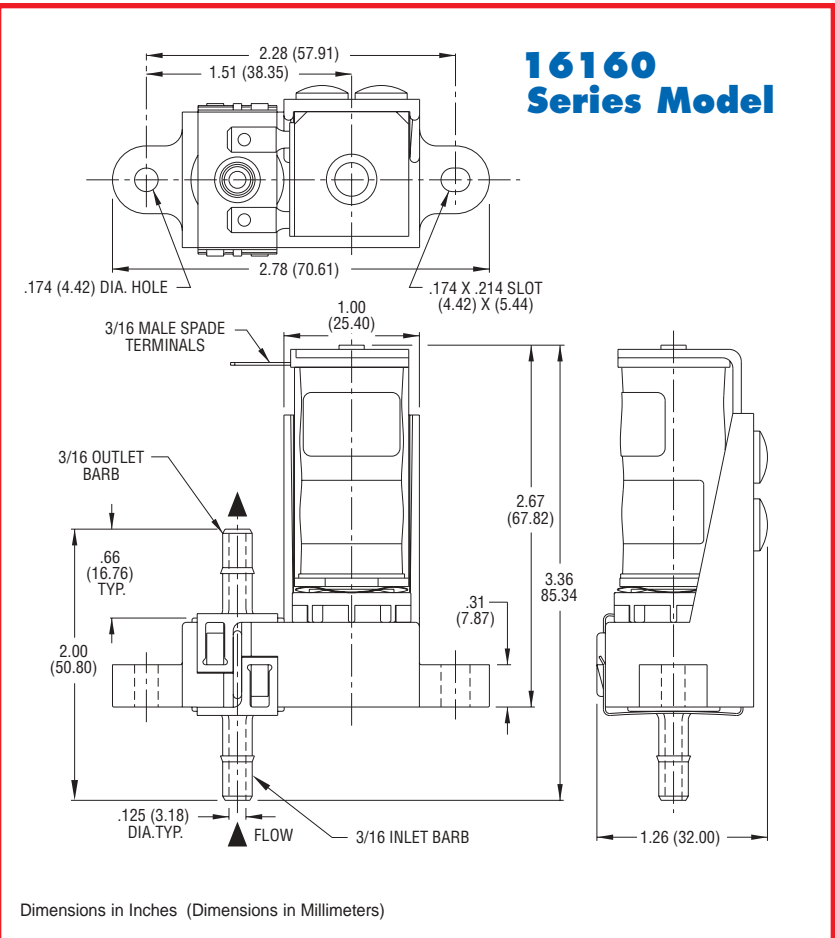
Standard models are constructed with 12 or 24 volt DC solenoids. A switch is required to supply pulsed voltage to the pump. The energized solenoid pulls the piston and diaphragm up, drawing fluid into the pump. A spring forces the piston back to its original position when the solenoid is de-energized, forcing fluid out of the pump, and the cycle is repeated. Valves are utilized to prevent back-flow into the pump and to maintain prime.

Specifications:

- Flow Rate** — Range to 250 microliters per stroke. Maximum pressure to 2.6 psi (6').
- Self-Priming** — To 3 feet
- Fluid Viscosity** — To 300 centistokes
- Fluid Temperature** — To 200°F (93°C)
- Duty Cycle** — 1 cycle/sec. max. (½ sec. on - ½ sec. off)
- Accuracy** — ±2% stroke-to-stroke (for a stationary setup)
- I.D. Tubing Size** — 3/16"
- Weight** — .265 lb.

Note: Positive suction head above 6" requires tight valves; consult factory for availability.

PISTON DIAPHRAGM - TYPICAL DIMENSIONS



MODEL SPECIFICATIONS

Model Number	Volts	Elastomer	Wetted Plastic	Model Number	Volts	Elastomer	Wetted Plastic
16160-001	24VDC	EPT/EPDM	Polyphenylene Oxide	16160-005	24VDC	EPT/EPDM	Polypropylene
16160-002	12VDC	Nitrile	Polypropylene	16160-006	12VDC	EPT/EPDM	Polypropylene
16160-003	24VDC	Nitrile	Polypropylene	16160-007	24VDC	Nitrile	Polyphenylene Oxide
16160-004	12VDC	EPT/EPDM	Polyphenylene Oxide	16160-008	12VDC	Nitrile	Polyphenylene Oxide

OEM
Options

To meet OEM specifications, the following features can be added:

- Fixed flow up to 500 microliters per stroke for low heads
- Fixed flow can be down to 100 microliters per stroke
- Field adjustability with screw and locking nut
- Alternate materials of construction
- Stepper linear actuator can replace solenoid
- Various solenoid voltages
- Better repeatability