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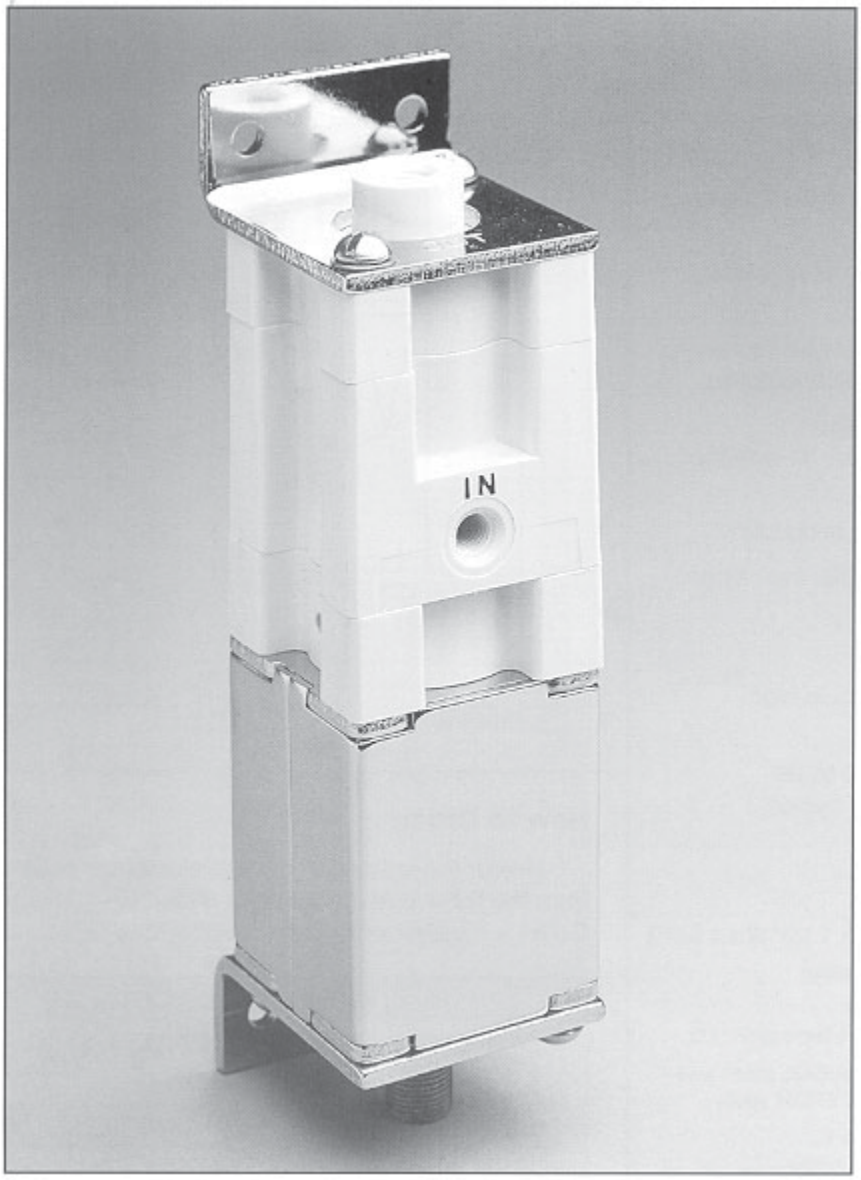
Valcor Scientific

Dispensing/Metering Pump

High Purity, Solenoid Operated, Piston Design
Model: SV603



INTRODUCTION

For over 50 years, Valcor Scientific, a Division of Valcor Engineering Corporation has designed and provided solenoid operated pumps to handle high purity and aggressive media. The SV603 Series pumps are rugged, reliable, precision devices, capable of operating through one million cycles without the need of maintenance

Recommended for a wide range of liquid dispensing and metering applications, the SV603 Series offers distinct advantages over other pumps in terms of durability, cost, size and accuracy.

The SV603 pump provides an output range, graduating from 100 to 1500 microliters per dispense.

DESCRIPTION

The SV603 is a piston-pump activated by the electrical energization of a solenoid coil. As the coil is energized and de-energized, a piston moves up and down to dispense liquids.

The SV603 pump employes Valcor's field-proven patented o-ring pumping system. This seals the piston while allowing the pump chamber to refill.

A flexible diaphragm isolates the liquid from any metal operating parts. Wetted surfaces are polypropylene and either Viton® or EPDM elastomers.

APPLICATIONS

The SV603 pump is well suited to applications requiring repeatable precision dispensing of small volumes over time to create a total volume of liquid.

This pump is designed for applications where liquids can be affected by or deteriorate metal in the fluid path, as in medical and hazardous environment applications.

Typical SV603 applications include:

Dispensing
- Adhesives
- Reagents in clinical instrumentation
- Dilutent in analytic instrumentation
- Lubricants

Metering
- Reagents in analyzers
- Concentrated liquids in a flow of
- aqueous spray

Adding
- Syrup to carbonated water in soda machines
- Fragrance to personal products

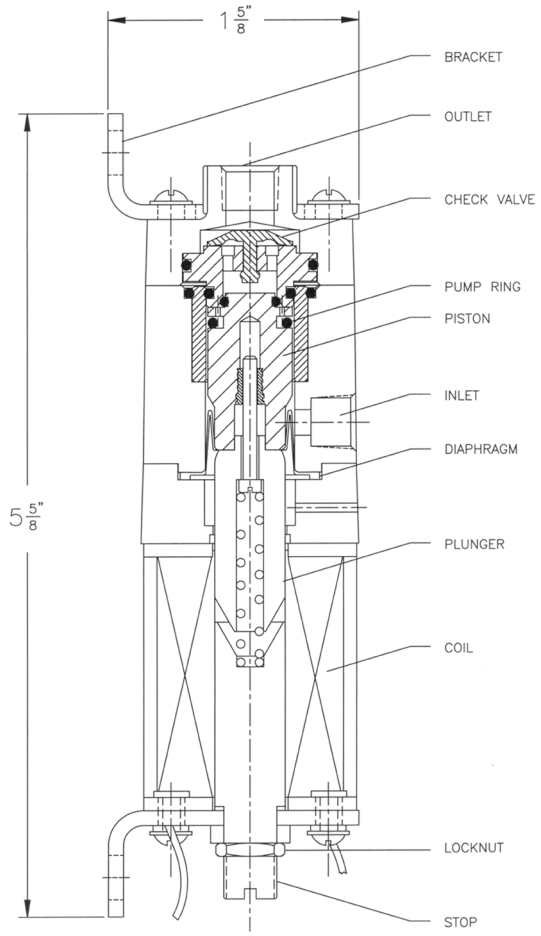
FEATURES

- Adjustability over a wide range of operating conditions is a function of two variables:
  - – Volume output per stroke is adjustable mechanically by setting piston stroke (Adjustable screw)
  - – Flow rate per minute is adjusted by frequency of coil energization
- High precision, repeatability within 2%
- Self-priming, can start from dry condition and capable of lifting five feet of water
- Compact, smaller than peristaltic and syringe pumps
- Long life, operates over a million cycles without maintenance
- High viscosity compatibility, dispense liquids with viscosities as high as 10,000 centistokes, by adjusting coil "on-time"
- Choice of elastomeric seal materials for application compatibility
- Custom mounting configurations available
- Custom inlet/outlet fittings available, including barb, lure and threaded
- Custom electrical terminations
- Low cost, one of the most affordable high precision metering pumps
- Easily maintained, while designed to be maintenance free over a million cycles, refurbishment kits are available

PHYSICAL SPECIFICATIONS

Size:	**5 5/8"H x 1 1/2"W x 1 5/8"D**
Weight:	**15.5 oz (439g)**
Port Connection:	**1/8" NPT**
	Min. Inlet Tube 3/16" I.D.
Wetted Surfaces:	**Polypropylene, glass and Viton® or EPDM seals**
Coil Construction:	**L Class B, with 18" leads**
Power:	**21 watts**
	(115 AC or 12, 24VDC)
Output/Stroke:	**100 to 1500 µl (AC) pump**
	100 to 1200 µl (DC) pump
Maximum Strokes/Min:	**120 on H_20**
Maximum Dispensing Rate:	**180cc/minute (AC) pump**
	144cm/minute (DC) pump
Maximum In-Take Lift:	**60" H_20**
Minimum On-Time:	**250 Milliseconds**
Maximum On-Time:	**6.0 Seconds**
Repeatability:	**+/-2%**
Special Requirements:	**Consult Factory**

MODEL: SV603



HOW TO ORDER

Select the *enclosure*, *voltage* and *elastomer* codes from the table below. **Example:** SV603 + [*Enclosure*] + [*Voltage*] + P + [*Elastomer*] + 1 = SV603C115PE

Enclosure Code	
Conduit = C	Pigtail = P
Voltage Code	
115/60 Hz AC = 115	24VDC = 24
12VDC = 24	
Elastomer Code	
Viton® = V	EPDM = E

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