



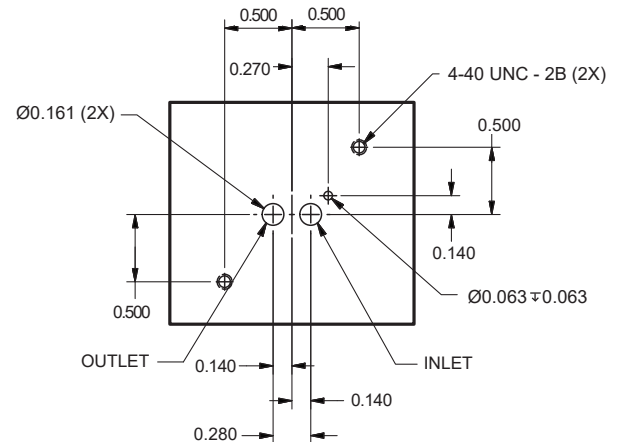
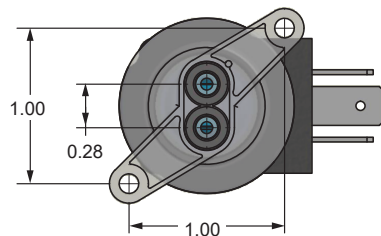
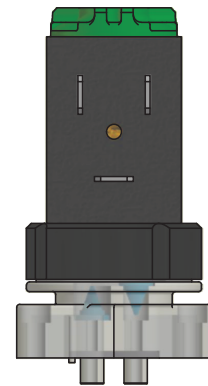
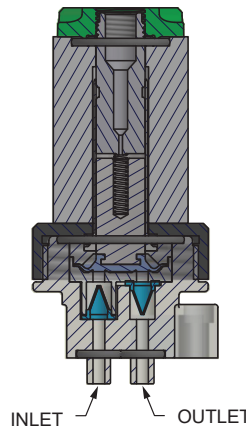
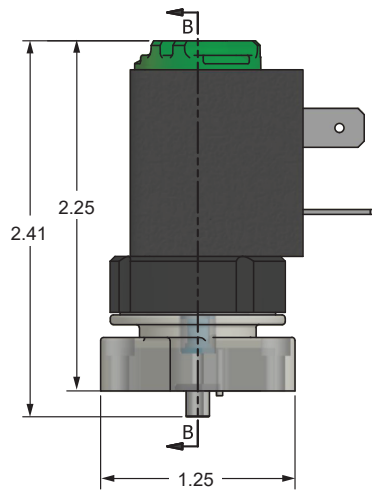
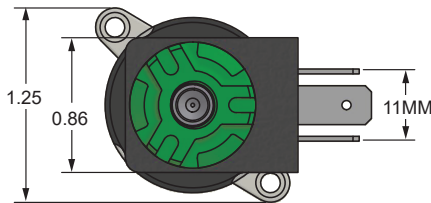
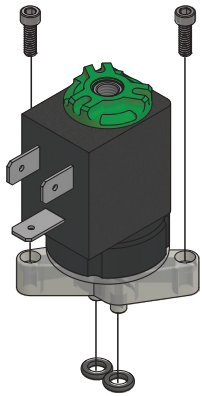
Series SSDP30

Electro-Fluidic Miniature Fixed Displacement Solenoid Pump

The Spartan Scientific Series SSDP 30 high precision, fixed volume, fluidic diaphragm solenoid pump is an inert miniaturized pump in an environmentally resistant package that features a fully encapsulated solenoid design offering flying leads, AMP Faston crimp or industry standard quick connector with or without indicator lights. The SSDP features a flexible-use form factor interface for a manifold with O-ring static seals or single use models using 1/8" tubing. This self-priming pump draws a low 6 watts and is available in 12 and 24VDC. The SSDP 30 can dispense up to 15µL/min continuous duty cycling at 5 Hz. The maximum cycle rate is 6 Hz and is designed for 20 million cycles of service. It has been designed from the ground up to work within the rigorous environments of scientific and medical industries who employ the need for finite control of fluids.

Dimensional Data

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED



MOUNTING HOLE / PASSAGE PATTERN



Series SSDP30

Electro-Fluidic Miniature Fixed Displacement Solenoid Pump

Technical Data

Function: 2-Way, 2-Position; Metering Diaphragm Pump Solenoid Operated; Normally Closed

Fluidic Interface: 1/8" I.D. tube barb (2) or manifold mount with #4-40 SHCS and standard O-rings (2)

Dispensing Volume: 50µl dispensed per shot ± 9µl. Self-Priming

Temp. Range: Fluid Max.: +60°C
Dry Range: Ambient +10° to +50°C

Response Time: 5 Hz Water
(will vary depending on media viscosity)

Media: Liquid chemicals, water
(contact factory for compatibilities)

Environment Protection: IP65 (IEC 144), NEMA 4
Dust-tight and water resistant
(with electrical connector)

Wetted Materials: Elastomers: FKM, EPDM, or PTFE
Valve Body: PEEK, Polycarbonate
Orifice Basket: PEEK, Polycarbonate

Coil Data: Encapsulation: Glass-Filled Nylon
Insulation: Class F
Power Rating: 6 Watts
Voltage: 6, 12, 24 VDC (others available on request)
Voltage Tolerance: +/- 10% nominal
Winding: Class H

Connections: Spades: Terminals AMP 6.3x0.8 width 11mm
(Available in DIN Style "A" EN175301-803 for 3.0mm orifice or larger)
Flying Lead: PVC 22 AWG, multi-strand copper wire, 300V, 12" minimum length

Packaged Weight: 0.23 lbs.

Self-Priming – The SSDP30 is capable of self-priming when located more than 2 meters above its fluid reservoir with water. (fluid viscosity may affect priming). The pump can produce an inlet suction of -5.0 psi and an outlet pressure of 4.0 psi. Priming the pump can be achieved by cycling the pump rapidly until no bubbles are visible in the outlet tube. The pump can also be primed by applying a vacuum to the outlet after the pump is actuated. This will draw fluid through the pump.

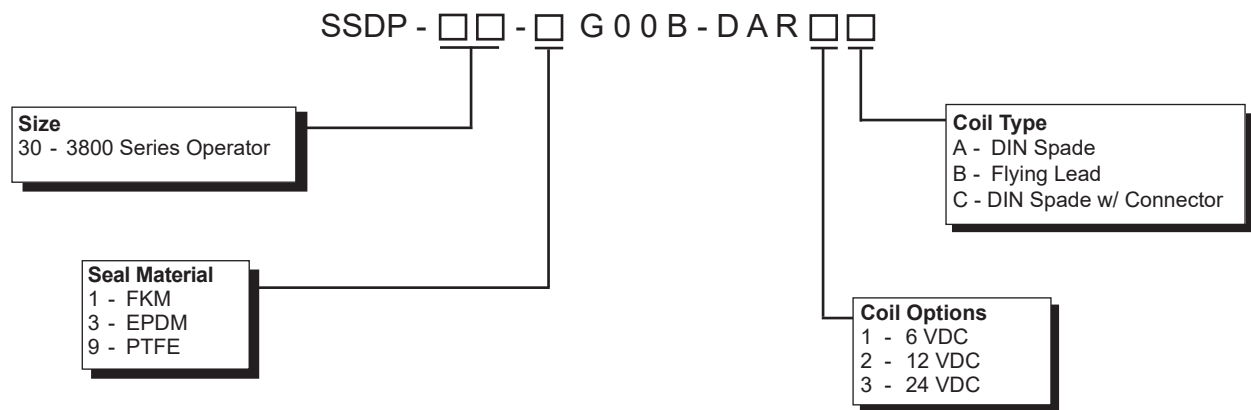
No External Shut-Off Valves Needed – When pump is deactivated the internal diaphragm will close against an internal orifice preventing any flow through the pump. The pump will remain closed with inlet pressure spikes of up to 15 psi.

Repeatable Dose Volume – Successive doses should yield a consistent volume of ±1µL (2%)

Pump to Pump Variation – Each pump once initially hooked up and primed will produce a dose volume on average of 43µL ± 5µL

NOTE: All values were obtained under Spartan Scientific's test conditions. Pumps were operated at room temperature (25°C), with clean water, 50% duty cycle at 5Hz (100 msec ON, 100 msec OFF), and with negligible pressure on the inlet and outlet. Variations of tubing size, tubing length, manifold design, inlet and outlet restrictions, inlet and outlet pressures, ambient temperature, duty cycle, operating frequency, and fluid temperature and viscosity may all affect the dose volume.

How To Order



Order Example: SSDP-30-1G00B-DAR2A
3800 Series Operator, FKM,
12 VDC, DIN Spade