SmartProducts
Engineered for success™

FEATURING CUSTOMIZABLE COMPONENTS TO MEET SPECIFIC APPLICATION REQUIREMENTS

CHECK VALVES, PUMPS, & MORE
SMARTPRODUCTS.COM
TOLL FREE: 1800.338.0404
Our check & pressure relief valves and liquid & air pumps provide accurate, reliable flow control in advanced, low pressure, low flow systems. Additionally, our products are:

- Customizable • Precise • Economical • Highest Quality • Ideal for liquid and gas • FDA & NSF compliant material • Corrosion resistant

Smart Products also provides additional services such as special testing, cleanroom molding & assembly, hot melt gluing, and other value-added solutions. We use our expertise to create quality and precise products to meet your exacting requirements.
CHECK/PRESSURE RELIEF VALVES

STANDARD CARTRIDGE
SMOOTH BODY DESIGN IN A VARIETY OF SIZES

MODEL #170 - STANDARD CARTRIDGE 3/4"
Pictured in Green Polypropylene & in Acrylic with Silicone O-Ring
O.D. at 3/4" (19.05mm)
Length at 1.125" (28.58mm)
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone
Springs: 0.16 - 3 PSI

MODEL #174 - STANDARD CARTRIDGE 3/4"
Pictured in ABS with Buna-N O-Ring
O.D. at 3/4" (19.05mm)
Length at 0.835" (21.21mm)
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone
Springs: 0.16 - 3 PSI

MODEL #175 - MANUAL RELIEF BLEED VALVE 5/8"
Pictured in Polycarbonate with Kalrez® O-Ring
O.D. at 5/8" (15.88mm)
Length at 0.630" (16.00mm)
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez®
Springs: 0.11 - 8 PSI

MODEL #180 - STANDARD CARTRIDGE 5/16"
Pictured in Purple Polypropylene & in PVDF with Fluorosilicone O-Ring
O.D. at 5/16" (7.94mm)
Length at 0.500" (12.70mm)
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
Springs: 0.09 - 20 PSI

MODEL #180 - STANDARD CARTRIDGE 5/8"
Pictured in Black Nylon
O.D. at 5/8" (15.88mm)
Length at 0.630" (16.00mm)
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone
Springs: 0.17 - 20 PSI

MODEL #180 - STANDARD CARTRIDGE 1/4"
Pictured Above in Ultem® with EPDM O-Ring & Below in Acetal with Buna-N O-Ring
O.D. at 1/4" (6.35mm)
Length at 0.500" (12.70mm)
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
Springs: 0.09 - 20 PSI

MODEL #110 - STANDARD CARTRIDGE 1/4"
Pictured Above in Ultem® with EPDM O-Ring & Below in Acetal with Buna-N O-Ring
O.D. at 1/4" (6.35mm)
Length at 0.500" (12.70mm)
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
Springs: 0.09 - 20 PSI

NOTE: VALVES ARE NOT PICTURED TO ACTUAL SIZE. OUR PRODUCTS ARE SUBJECT TO CONTINUOUS IMPROVEMENT. WE RESERVE THE RIGHT TO CHANGE FEATURES, PROCESSES, MATERIALS, TESTING, & OTHER SPECIFICATIONS, AS NECESSARY. SMART PRODUCTS USA STRONGLY RECOMMENDS CUSTOMERS TEST PRODUCTS FOR EACH APPLICATION-SPECIFIC USE.

ALL MODEL #S ARE CUSTOMIZABLE BY PLASTIC BODY, O-RING, & OPENING PSI. NEED A MATERIAL OR OPENING PSI NOT LISTED? JUST ASK OUR SALES DEPARTMENT FOR ASSISTANCE.
### SERIES 100 SPECIALTY

**SMALL SIZES, MANY STYLES**

#### INTERNAL COMPONENTS:
- Spring
- Poppet in Plastic Body Cartridge

#### CHECK/PRESSURE RELIEF VALVES

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
</table>
| **Model #101 - Micro Barbed 1/8”** | Pictured in Polycarbonate with Silicone Cone Seal | Fits Tubing I.D. at 1/8” (3.175mm)  
Length at 0.375” (9.53mm)  
Plastics: Polypropylene, Nylon, PVDF, Polycarbonate, Ultem®, Radel®  
O-rings: Buna-N, Silicone  
Springs: 0.08 - 20 PSI |
| **Model #111 - Barbed 1/4”** | Pictured in Ultem® with Viton® O-ring | Fits Tubing I.D. at 1/4” (6.35mm)  
Length at 0.475” (12.07mm)  
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS  
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone  
Springs: 0.09 - 20 PSI |
| **Model #118 - Barbed 1/4” Reverse Flow of #111** | Pictured in Acrylic with Silicone O-ring | Fits Tubing I.D. at 1/4” (6.35mm)  
Length at 0.475” (12.07mm)  
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS  
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone  
Springs: 0.09 - 20 PSI |
| **Model #122 - Side Seal 5/16”** | Pictured in Radel® with EPDM O-rings | O.D. at 0.305” (7.747mm)  
Length at 0.5” (12.7mm)  
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS, Radel®  
O-rings: Buna-N, EPDM, Viton®, Silicone  
Springs: 0.09 - 20 PSI |
| **Model #132 - Side Seal 3/8”** | Pictured in ABS with Viton® O-rings | O.D. at 0.365” (9.27mm)  
Length at 0.392” (9.96mm)  
Plastics: Polypropylene, Nylon, Acrylic, Acetal, PVDF, Polycarbonate, Ultem®, ABS, Radel®  
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone  
Springs: 0.09 - 20 PSI |
| **Model #134 - Tapered Flanged Inlet 1/2”** | Pictured in Black Nylon | Body O.D. at 0.375” (9.53mm)  
Length at 0.640” (16.26mm)  
Flange at 0.42” (10.668mm)  
Plastics: Polypropylene, PVDF, Polycarbonate  
O-rings: Buna-N, EPDM, Viton®, Silicone  
Springs: 0.17 - 20 PSI |
| **Model #158 - Flanged Outlet 5/8”** | Pictured in Acetal with Buna-N O-ring | Body O.D. at 0.625” (15.88mm)  
Length at 0.58” (14.732mm)  
Flange at 0.685” (17.399mm)  
Plastics: Polypropylene, Nylon, Acetal  
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®†, Kalrez®†  
Springs: 0.11 - 8 PSI |
| **Model #191 - Side Seal & Flanged Outlet 5/8”** | Pictured in Purple Polypropylene with EPDM O-rings | O.D. at 0.625” (15.88mm)  
Length at 0.455” (11.56mm)  
Flange at 0.680” (17.27mm)  
Plastics: Polypropylene, Nylon, Acrylic, PVDF, Polycarbonate, Ultem®, ABS, Radel®  
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®†  
Springs: 0.11 - 8 PSI |

**Note:** All models are customizable by plastic body, O-ring, & opening PSI. Need a material or opening PSI not listed? Just ask our sales department for assistance.

**PRODUCTS USA STRONGLY RECOMMENDS CUSTOMERS TEST PRODUCTS FOR EACH APPLICATION SPECIFIC USE.**

**SMARTPRODUCTS.COM • 1-800-338-0404**

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*† Aflas®, Kalrez® are DuPont trademarks.® Patented products.*

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**CHECK/PRESSURE RELIEF VALVES**

**MODEL #214 - MALE NPT 1/8”**
Pictured in Black Nylon
- Overall Size at 0.67”
- Length at 1.37”
- Plastics: Polypropylene, Nylon, ABS
- O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
- Springs: 0.09 - 20 PSI

**MODEL #212 - MALE NPT 1/4”**
Pictured in Blue ABS
- Overall Size at 0.67”
- Length at 1.37”
- Plastics: Polypropylene, Nylon, ABS
- O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
- Springs: 0.09 - 20 PSI

**MODEL #224 - COMPRESSION FITTING 1/4”**
Pictured in Polypropylene
- Size O.D. at 0.713”
- Length at 0.625”
- Plastics: Polypropylene
- Note: Compression Fitting at 1/4” size for use with Model #212 (shown) or Model #214 on inlet or outlet sides

**NOTE:** Valves are not pictured to actual size. Our products are subject to continuous improvement. We reserve the right to change features, processes, materials, testing, & other specifications as necessary. Smart Products USA strongly recommends customers test products for each application-specific use.

All model #s are customizable by plastic body, O-ring, & opening psi. Need a material or opening psi not listed? Just ask our sales department for assistance.

**MIX & MATCH NPT & METRIC STYLE OPTIONS**

**INTERNAL COMPONENTS:** O-RING, SPRING, & POPPET

**SERIES 200**
**MALE NPT & METRIC STYLES**

**MIX & MATCH MALE NPT - 1/4” & 1/8”: MODEL #212/214**
Pictured in Blue ABS
- May combine Model #212 and #214 or use the same NPT size on both ends

**SMARTPRODUCTS.COM • 1-800-338-0404**
CHECK/PRESSURE RELIEF VALVES

MIX & MATCH END FITTINGS

MODULAR

SERIES 300

MODEL #300 - BARBED 1/16” PAIRED WITH SAME MODEL #300
PICTURED IN RED POLYPROPYLENE
Tubing I.D. at 1/16” (1.58mm)
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #302 - BARBED 1/8” PAIRED WITH SAME MODEL #302
PICTURED IN ULTEM® WITH BUNA-N O-RINGS
Tubing I.D. at 1/8” (3.18mm)
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #305 - BARBED 5/16” PAIRED WITH SAME MODEL #305
PICTURED IN ABS
Tubing I.D. at 5/16” (7.94mm)
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #308 - BARBED 1/2” PAIRED WITH SAME MODEL #304
PICTURED IN BLACK NYLON
Tubing I.D. at 1/2” (12.70mm)
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS, Radel®
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #310 - BARBED 3/32” PAIRED WITH SAME MODEL #301
PICTURED IN BLACK NYLON
Tubing I.D. at 3/32” (2.38mm)
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #312 - NPT 1/4” PAIRED WITH SAME MODEL #302
PICTURED IN PVDF WITH BUNA-N O-RINGS
NPT Size at 1/4”
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #314 - NPT 1/8” PAIRED WITH SAME MODEL #314
PICTURED IN RADEL® WITH FLUOROSILICONE O-RINGS
NPT Size at 1/8”
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS, Radel®, Aflas®
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #315 - FOOT FILTERING PAIRED WITH MODEL #312
PICTURED IN BLUE / WHITE POLYPROPYLENE
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #316 - SMOOTH STEM 3/8” PAIRED WITH MODEL #314
PICTURED IN ABS
Tubing I.D. at 3/8” (9.525mm)
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS, Radel®
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #317 - BARBED 3/16” PAIRED WITH SAME MODEL #315
PICTURED IN BLUE POLYPROPYLENE
Tubing I.D. at 3/16” (4.76mm)
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #320 - MANUAL RELIEF PAIRED WITH MODEL #302
PICTURED IN RED POLYPROPYLENE
Unique style provides pressure or vacuum relief at the touch of a button. Threaded for panel mounting; 5/8-18 thread pitch
Plastics: Polypropylene
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI

MODEL #330 - BARBED 3/16” PAIRED WITH SAME MODEL #303
PICTURED IN BLUE POLYPROPYLENE
Tubing I.D. at 3/16” (4.76mm)
Plastics: Polypropylene, Nylon, PVDF, Ultem®, ABS, Radel®, Aflas®
O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone, Aflas®, Kalrez
Springs: 0.11 - 20 PSI
**CHECK/PRESSURE RELIEF VALVES**

**MODEL #500 - BARBED 1/16”**
- Paired with Model #502
- Pictured in polycarbonate with buna-N o-rings
- Tubing I.D. at 1/16” (1.58mm)
- Plastics: Polypropylene, PVDF, Polycarbonate, Ultem®
- O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
- Springs: 0.09 - 20 PSI

**MODEL #502 - BARBED 1/8”**
- Paired with same Model #502
- Pictured in PVDF with silicone o-rings
- Tubing I.D. at 1/8” (3.18mm)
- Plastics: Polypropylene, PVDF, Polycarbonate, Ultem®
- O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
- Springs: 0.09 - 20 PSI

**MODEL #541 - FEMALE LUER LOCK**
- Paired with Model #502
- Pictured in Ultem® with fluorosilicone o-rings
- Plastics: Polypropylene, PVDF, Polycarbonate, Ultem®
- O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
- Springs: 0.09 - 20 PSI

**MODEL #542 - MALE LUER**
- Paired with same Model #542
- Pictured in orange / white polypropylene
- Plastics: Polypropylene
- O-rings: Buna-N, EPDM, Viton®, Silicone, Fluorosilicone
- Springs: 0.09 - 20 PSI

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All models are customizable by plastic body, o-ring, & opening psi. Need a material or opening psi not listed? Just ask our sales department for assistance.
LIQUID PUMPS
SERIES 3000
ENERGY-EFFICIENT, DURABLE, & DEPENDABLE

MAX START UP CONSUMPTION
1500 mA

PORTS
Choice of 1/8” or 1/4” FNPT

VOLTAGE
12-24 VDC

MAX START UP CONSUMPTION
1500 mA

ELECTRICAL CONNECTIONS
Spade type terminals

MOTOR
Permanent magnet DC

WEIGHT
9.3 oz. (263 g)

TEMPERATURE RANGE
220°F (104°C) maximum

DUTY CYCLE
1000 hours continuous duty @ 12 VDC*

PUMP BODY
Nylon 6

ORINGS
Buna-N, EPDM, Viton®, Silicone

DIAPHRAGMS
Teflon®

SPRINGS
316 stainless steel or Hastelloy-C**

DIAPHRAGMS
Teflon®

OPTIONS BY MODEL

<table>
<thead>
<tr>
<th>MODEL</th>
<th>#SP3210 (1/8” FNPT PORT)</th>
<th>#SP3410 (1/4” FNPT PORT)</th>
<th>#SP3215 (1/8” FNPT PORT)</th>
<th>#SP3415 (1/4” FNPT PORT)</th>
<th>#SP3220 (1/8” FNPT PORT)</th>
<th>#SP3420 (1/4” FNPT PORT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER CONSUMPTION</td>
<td>~300-500 mA</td>
<td>~300-600 mA</td>
<td>~300-600 mA</td>
<td>~300-700 mA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAX OUTPUT PRESSURE</td>
<td>40 PSI @ 12 VDC (2.8 Bar)</td>
<td>26 PSI @ 12 VDC (1.8 Bar)</td>
<td>19 PSI @ 12 VDC (1.3 Bar)</td>
<td>45 PSI @ 24 VDC (3.1 Bar)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAX FLOW RATE</td>
<td>9.1 GPH @ 12 VDC (34.4 LPH)</td>
<td>12.7 GPH @ 12 VDC (48.1 LPH)</td>
<td>16.6 GPH @ 12 VDC (62.8 LPH)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VACUUM</td>
<td>18 inHg wet, 3.6 inHg dry @12 VDC (457 mmHg wet, 91 mmHg dry)</td>
<td>21 inHg wet, 5.3 inHg dry @12 VDC (533 mmHg wet, 135 mmHg dry)</td>
<td>22 inHg wet, 8.6 inHg dry @12 VDC (559 mmHg wet, 218 mmHg dry)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All standard materials are FDA compliant
"Lifetime will vary depending on usage \ **Hastelloy-C only available with 1/4” FNPT ports

NOTE: Pumps are not pictured to actual size. Our products are subject to continuous improvement. We reserve the right to change features, processes, materials, testing, & other specifications as necessary. Smart Products strongly recommends that customers test products for each application-specific use.

SMARTPRODUCTS.COM • 1-800-338-0404
## SERIES 8000
### AIR PUMPS
#### ENERGY-EFFICIENT, DURABLE, & DEPENDABLE

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### FEATURES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>JS8000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PUMP OVERVIEW</strong></td>
<td>Single diaphragm, positive displacement</td>
</tr>
<tr>
<td><strong>TYPICAL PERFORMANCE</strong></td>
<td>0.035 CFM @ 14.5 PSI (1.0 LPM @ 1 Bar)</td>
</tr>
<tr>
<td><strong>PORTS</strong></td>
<td>3/16” barb</td>
</tr>
<tr>
<td><strong>VACUUM</strong></td>
<td>18 inHg (457 mmHg)</td>
</tr>
<tr>
<td><strong>APPROVALS</strong></td>
<td>FAA approved (D0160C)</td>
</tr>
<tr>
<td><strong>MOTOR</strong></td>
<td>Permanent magnet DC</td>
</tr>
<tr>
<td><strong>VOLTAGE RANGE</strong></td>
<td>12 or 24 VDC</td>
</tr>
<tr>
<td><strong>SIZE</strong></td>
<td>1.5”W x 2.28”L x 3.7”H (38.1 x 57.9 x 93.98 mm)</td>
</tr>
<tr>
<td><strong>POWER CONSUMPTION</strong></td>
<td>Less than 1 amp</td>
</tr>
<tr>
<td><strong>WEIGHT</strong></td>
<td>0.5 lb. (227 g)</td>
</tr>
<tr>
<td><strong>ELECTRICAL CONNECTIONS</strong></td>
<td>Spade type terminals</td>
</tr>
<tr>
<td><strong>TEMPERATURE RANGE</strong></td>
<td>32° - 220° F (0° - 104° C) estimated</td>
</tr>
<tr>
<td><strong>MAX OUTPUT PRESSURE</strong></td>
<td>20 PSI (1.38 Bar)</td>
</tr>
<tr>
<td><strong>DUTY CYCLE</strong></td>
<td>1000 hours @ 100% duty cycle*</td>
</tr>
<tr>
<td><strong>MAX FLOW RATE</strong></td>
<td>0.14 CFM (4 LPM), 8.5 CFH (240 LPH)</td>
</tr>
<tr>
<td><strong>MATERIALS</strong></td>
<td>Pump body: Nylon FDA, Diaphragm &amp; Valves: Buna-N FDA, Viton® FDA</td>
</tr>
</tbody>
</table>

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*Lifetime will vary depending on usage

**NOTE:** Pumps are not pictured to actual size. Our products are subject to continuous improvement. We reserve the right to change features, processes, materials, testing, & other specifications as necessary. Smart Products strongly recommends that customers test products for each application-specific use.
# SERIES AP MICRO PRESSURE PUMPS

**MICRO SIZE WITH MAXIMUM DURABILITY**

## FEATURES

### PUMP OVERVIEW
Rotary diaphragm, miniature, ideal for battery powered applications

### ELECTRICAL CONNECTIONS
Terminals extend from top of pump

### VALVES
Suction valve in Buna 50° A, discharge valve in Buna 45-50° A

### PUMP BODY & RETAINER BASE
Celcon® M90 Natural

### TOP COVER
ABS 757 Natural (N/A for #AP-3P04)

### DIAPHRAGM
Buna 50° A

### FUNCTION
Creates pressure for air flow

**NOTE:** Pumps are not pictured to actual size. Our products are subject to continuous improvement. We reserve the right to change features, processes, materials, testing, & other specifications as necessary. Smart Products strongly recommends that customers test products for each application-specific use.

## OPTIONS BY MODEL

<table>
<thead>
<tr>
<th>MODEL</th>
<th>#AP-2P01</th>
<th>#AP-2P02A</th>
<th>#AP-3P04</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORTS</td>
<td>3mm outlet</td>
<td>3mm outlet</td>
<td>4mm outlet</td>
</tr>
<tr>
<td>VOLTAGE RANGE</td>
<td>Nominal 3 VDC, 2.0 - 3.2 VDC</td>
<td>Nominal 3 VDC, 1.9 - 3.1 VDC</td>
<td>Nominal 12 VDC</td>
</tr>
<tr>
<td>POWER CONSUMPTION</td>
<td>Max 460 mA</td>
<td>Max 320 mA</td>
<td>Max 270 mA</td>
</tr>
<tr>
<td>NOISE</td>
<td>&lt;60 dBA @10cm</td>
<td>&lt;65 dBA @10cm</td>
<td>&lt;55 dBA @1ft</td>
</tr>
<tr>
<td>MAX OUTPUT PRESSURE</td>
<td>6.76 PSI (350mmHg)</td>
<td>6.76 PSI (350mmHg)</td>
<td>11.0 PSI (570mmHg)</td>
</tr>
<tr>
<td>MAX FLOW RATE</td>
<td>1.48 SCFH (0.7 LPM)</td>
<td>0.42 SCFH (0.2 LPM)</td>
<td>3.18 SCFH (1.5 LPM)</td>
</tr>
<tr>
<td>PRESSURE DROP</td>
<td>&lt;2 mmHg/min from 300 mmHg</td>
<td>&lt;2 mmHg/min from 300 mmHg</td>
<td>&lt;3 mmHg/min from 525 mmHg</td>
</tr>
<tr>
<td>SIZE</td>
<td>1.566”W x 0.472”L x 0.827”H (39.78 x 11.99 x 21.00 mm)</td>
<td>1.301”W x 0.394”L x 0.650”H (33.04 x 10.01 x 16.51 mm)</td>
<td>2.550”L x 1.18” Diameter (64.77 x 29.97 mm)</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>0.55 oz. (15.5 g)</td>
<td>0.28 oz. (8.0 g)</td>
<td>2.12 oz. (60.0 g)</td>
</tr>
<tr>
<td>DUTY CYCLE</td>
<td>Tested to 30,000 operating cycles</td>
<td>Tested to 30,000 operating cycles</td>
<td>Tested to &gt;80,000 operating cycles</td>
</tr>
</tbody>
</table>

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