High Efficiency Miniature Filtration Products

Disposable In-Line Filters

numatics

www.numatics.com
Numatics, Inc. is a leading manufacturer of pneumatic products and motion control products. Our broad spectrum of standard, custom developed products and application components have made a significant impact on pneumatic innovation as well as pneumatic and motion control technology. Our company has an extensive history of generating innovative concepts and technological breakthroughs. Many of today’s standard features in pneumatic technology were industry firsts from Numatics. We continue our innovative approach to product development by developing electric motion control solutions and enhancing our embedded Fieldbus and I/O products to continually meet and solve our customer’s application requirements.

Today Numatics is proud to be a part of the Industrial Automation Division of Emerson Electric Co.

Emerson (NYSE:EMR), based in St. Louis, Missouri (USA), is a global leader in bringing technology and engineering together to provide innovative solutions for customers in industrial, commercial, and consumer markets through its network power, process management, industrial automation, climate technologies, and appliance and tools businesses. For more information, visit www.Emerson.com.
We are committed to providing you with an unmatched level of customer service, quality, and reliability. If you cannot locate the specific product for your application or need additional product specifications, visit www.numatics.com or call 888-686-2842. Numatics Express orders cannot be canceled or adjusted once entered. Saturdays, Sundays, and Holidays are excluded.

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*Sentronic® Proportional Valves, CGT Compact Slides, NR Series Rodless and Air Bellows are limited to orders up to 5.
**A Series Large Bore NFPA, ASP Series Steel Body NFPA and G Series Guide Rail Rodless are limited to orders up to 5.
Welcome to the World of Fluid Automation...

Since 1945, Numatics has emerged as the prominent specialist in developing and manufacturing pneumatic and fluid power components for a widely diverse field of automated industry. From idea to implementation, leading engineers choose Numatics as their single source for:

- Quality Fluid Power components
- Technologically advanced design resources
- Quick response time in delivery and service from around the world

**Numasizing®**

Developed by Numatics, Numasizing® offers a whole new level of fluid power system optimization. Compare large amounts of component and process data against user objectives and industry benchmarks for the best possible size, pneumatic pressure, actuator stroke velocities and other part and process variable determinations.

**CAD Modeling**

Save critical development time with the most innovative CAD configuration program in the pneumatic component industry. Numatics in 3D eliminates the time consuming process associated with designing components from scratch based on information found in conventional paper catalogs. The models are available in 85 different native CAD formats in 2D drawings and 3D models, including all the popular formats including Catia, I-DEAS, Pro/Engineer, SolidWorks, Unigraphics and more.
Features - Dual Barbed and Straight Type

- Max pressure at 125 PSI (8.6 BAR)
- Max temperature at 125°F (52° C)
- Rugged polyurethane housing with dual barb style
- Rugged nylon housing with straight style
- Compatible with many chemicals
- Depth-loading coalescing media provides long life.
- Dual barb for 1/4 and 1/8 ID soft tubing
- Straight tang for push-on fittings
- Oil indicating die – turns red with oil present (See option "D."
- PTFE element binder (See option "T.")
- Flow outside to inside element (Cap to body)

Applications

- Sensor Protection
- Pneumatic Logic
- Exhaust Muffler
- Medical/ Pharmaceutical

Flow Rates for PLS-B

<table>
<thead>
<tr>
<th>Pressure (Bar)</th>
<th>10</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
<th>125</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow SCFM (lpm)</td>
<td>1.1</td>
<td>1.4</td>
<td>2.8</td>
<td>4.1</td>
<td>5.5</td>
<td>6.9</td>
<td>9.6</td>
</tr>
<tr>
<td>*Flow SCFM (lpm)</td>
<td>31.1</td>
<td>36.8</td>
<td>51.0</td>
<td>59.5</td>
<td>67.9</td>
<td>73.6</td>
<td>79.3</td>
</tr>
</tbody>
</table>

Flow Rates for PLS-T

<table>
<thead>
<tr>
<th>Pressure (Bar)</th>
<th>10</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
<th>125</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow SCFM (lpm)</td>
<td>1.6</td>
<td>2.1</td>
<td>2.8</td>
<td>3.6</td>
<td>3.9</td>
<td>4.4</td>
<td>4.9</td>
</tr>
<tr>
<td>*Flow SCFM (lpm)</td>
<td>45.3</td>
<td>59.5</td>
<td>79.3</td>
<td>102.0</td>
<td>110.4</td>
<td>124.6</td>
<td>138.8</td>
</tr>
</tbody>
</table>

* Based on a 1.5 psid pressure drop

How To Order

** Series **
- PL = Plastic Inline

Element Grades
- R = 0.01 Micron - 99.99% efficiency
- S = 0.3 Micron - 99.975% efficiency
- T = 0.5 Micron
- U = 1 Micron
- P = 5 Micron (Particulate)
- F = Activated Carbon
- X = Silica Gel

** Options **
- **D** = Oil Indicating Dye (F, D and C approved)***
- **T** = PTFE Binder Grades R, S, T & U

** Port Option **
- **B** = Dual Barbed
- **T** = 1/4" Straight

*** F, D and C = Food, Drug & Cosmetic

** Not available on grades P, F, and X
Disposable In-Line Filters  Miniature Filtration Products

Features - Straight and Elbow Fitting Type
- Max pressure at 35 PSI (2.4 BAR)
- Max temp at 125° F (52° C)
- Rugged blue tinted nylon housing
- Straight barb option
- Right angle barb option
- Depth-loading coalescing media provides long life.
- Element binder is epoxy - Standard for grades R, S, T, U.
- PTFE binder optional for elements (See option "T.")
- Flow outside to inside element (Cap to body)

Applications
- Protection of miniature pneumatic components
- Sampling devices
- Small design areas
- Exhaust muffler
- Instrumentation
- Gas sampling

<table>
<thead>
<tr>
<th>Flow Rates for PTS-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure</td>
</tr>
<tr>
<td>*Flow</td>
</tr>
</tbody>
</table>

* Based on a 1.5 psid pressure drop

<table>
<thead>
<tr>
<th>Flow Rates for PTS-BN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure</td>
</tr>
<tr>
<td>*Flow</td>
</tr>
</tbody>
</table>

* Based on a 1.5 psid pressure drop

How To Order

Series
PT = Plastic Inline
S = Straight 1/8" tube fitting
B = 90 Degree 1/8" tube fitting
D = Oil Indicating Dye (F, D and C approved)**
T = PTFE Binder Grades R, S, T & U

Element Grades
R = 0.01 Micron - 99.99% efficiency
S = 0.3 Micron - 99.975% efficiency
T = 0.5 Micron
U = 1 Micron

Options (Specify Alphabetically as Required)

Port Option
B = Straight 1/8" tube fitting
T = 90 Degree 1/8" tube fitting

** F, D and C = Food, Drug & Cosmetic

Information subject to change without notice. For ordering information or regarding your local sales office visit www.numatics.com.
**Features - PH Series Filters**

- Max pressure 100 PSIG (6.9 BAR)
- Max temp 200°F (93°C)
- 300°F at 60 PSIG 4.1 BAR / 149°C
- Rugged polyester housing
- Brass inserts
- Inner support core which protects element from collapsing
- Spin welded seal - no adhesives or chemicals
- Thermally bonded end caps on elements
- Extended version for longer filter life
- HEPA – High Efficiency Particulate Air
- ULPA – Ultra Low Particulate Air

**Applications**

- Medical concentrators
- Intake filter
- After filter for miniature desiccant beds
- High flow pneumatic tools
- Critical instrumentation protection

### Flow Rates for PHD

<table>
<thead>
<tr>
<th>Pressure (PSIG (Bar))</th>
<th>10 (0.7)</th>
<th>20 (1.4)</th>
<th>40 (2.8)</th>
<th>60 (4.1)</th>
<th>80 (5.5)</th>
<th>100 (6.9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSIG (Bar)</td>
<td>2.75 (69.9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCFM (lpm)</td>
<td>14 (396.4)</td>
<td>17.5 (495.5)</td>
<td>22.4 (634.3)</td>
<td>26.8 (759.9)</td>
<td>30.8 (872.2)</td>
<td>34.3 (971.3)</td>
</tr>
</tbody>
</table>

* Based on a 1.5 psid pressure drop

### Flow Rates for PXD

<table>
<thead>
<tr>
<th>Pressure (PSIG (Bar))</th>
<th>10 (0.7)</th>
<th>20 (1.4)</th>
<th>40 (2.8)</th>
<th>60 (4.1)</th>
<th>80 (5.5)</th>
<th>100 (6.9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSIG (Bar)</td>
<td>4.76 (120.9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCFM (lpm)</td>
<td>17.5 (495.5)</td>
<td>20.7 (586.2)</td>
<td>26.4 (747.6)</td>
<td>31 (877.8)</td>
<td>35.3 (1000.0)</td>
<td>39.3 (1113.0)</td>
</tr>
</tbody>
</table>

* Based on a 1.5 psid pressure drop

**How To Order**

- **Series**
  - PH = Plastic High Flow Housing
  - PX = Plastic Extended Housing

- **Element Grades**
  - B = 3.0 Micron Pleat
  - D = 0.3 Micron Pleated HEPA – 99.97% Efficiency
  - E = 0.3 Micron Pleated ULPA – 99.999% Efficiency

- **Option**
  - B = 1/2" barb on outlet only

- **Port Tap Size**
  - 02 = 1/4 NPT
Features - PH Series Desiccant Dryers

- In-Line Desiccant Dryers - 30°F dew point
- Max pressure 100 PSIG (6.9 BAR)
- Max temp 150°F (66˚C)
- Rugged clear polycarbonate housing
- Integral 3µ filter paper inlet and outlet – blue silica gel turns pink when saturated indicating replacement
- Brass inserts
- Spin welded seal - no adhesives or chemicals

Applications

- Critical instrumentation protection
- Parts blow off
- Paint spray

Flow Rates for PHS

<table>
<thead>
<tr>
<th>Pressure (PSIG/Bar)</th>
<th>10 (0.7)</th>
<th>20 (1.4)</th>
<th>40 (2.8)</th>
<th>60 (4.1)</th>
<th>80 (5.5)</th>
<th>100 (6.9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow (SCFM/lpm)</td>
<td>5.5 (155.7)</td>
<td>7.0 (198.2)</td>
<td>10.0 (283.2)</td>
<td>12.5 (354.0)</td>
<td>14.5 (410.6)</td>
<td>15.5 (438.9)</td>
</tr>
</tbody>
</table>

* Based on a 1.5 psid pressure drop

How To Order

PHS Series

PH = Plastic High Flow Housing
S = Silica Gel
02 = 1/4 NPT

Dimensions in inches (mm)

PH Series Desiccant Dryers

PHS-02

Pictured

1/4" Female Both Ends

In

Out

3.00 (76.2)

2.75 (69.9)
Features - MF Series Miniature In-Line Filters

- Max pressure 150 PSIG (10 BAR)
- Max temp 200°F (93°C)
- Aluminum construction
- Replaceable element
- Compact design
- Miniature coalescing capability

Applications

- Miniature air tools
- Control panels
- Outdoor applications

Flow Rates for MF05S

<table>
<thead>
<tr>
<th>Pressure (PSIG)</th>
<th>10</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
<th>150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow SCFM (lpm)</td>
<td>1.5</td>
<td>2.1</td>
<td>3.3</td>
<td>4.6</td>
<td>5.8</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>*Flow SCFM (lpm)</td>
<td>42.5</td>
<td>59.5</td>
<td>93.4</td>
<td>130.3</td>
<td>164.2</td>
<td>198.2</td>
<td>283.1</td>
</tr>
</tbody>
</table>

*Based on a 1.5 psid pressure drop

How To Order

Series MF 05 B - 02

Port Option 02 = 1/4" NPT In/Out

Dimensions in inches (mm)

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