Lake Monitors
Pneumatic Flow Rate Monitors
FOR 1/8” – 2” PIPE SIZES

CHOICE OF THREE MATERIALS OF CONSTRUCTION
Select from aluminum, brass or stainless steel to meet system and media compatibility requirements.

UNRESTRICTED MOUNTING
Allows the designer to install the monitor in any orientation — horizontal, vertical or inverted.

SUPERIOR EXTERIOR DESIGN
Weather-tight for use outdoors and/or on systems where wash downs are required.

RUGGED AND RELIABLE
These monitors are constructed with all metal pressure vessels, allowing safe, permanent installation in industrial systems.

HIGH PRESSURE OPERATION
The magnetically coupled follower and rigid pressure vessel design allows operation to 1000 PSIG.

24 DIFFERENT PORTS AVAILABLE
Standard selection of NPT, SAE and BSP ports reduces the amount of adapters required for installation.

LOW COST ACCURACY
±2.5% of range accuracy in center third of scale; ±4% in upper and lower thirds

BI-DIRECTIONAL AND REVERSE FLOW OPTION OFFERED
Pneumatic monitors are also available in bi-directional and reverse flow versions.

ENGINEERING SPECIFICATION

THE PNEUMATIC IN-LINE FLOW RATE MONITOR SHALL:

- Use the variable annular orifice technique with compression spring recoil.
- Not require inlet or outlet straight plumbing, or require vertical pipe mounting.
- Have a measuring accuracy of ±2.5% of full scale in the center third of the measuring range, and ±4% in upper and lower thirds.
- Have a stainless steel sharp-edged orifice.
- Have a weather-tight external construction.
- Be Lake Monitors No. G __-__-__

Ideal for monitoring air compressor outputs, pneumatic tool air consumption and industrial gas flows.

www.lakemonitors.com
MATERIALS OF CONSTRUCTION (WETTED COMPONENTS)

<table>
<thead>
<tr>
<th></th>
<th>ALUMINUM</th>
<th>BRASS</th>
<th>STAINLESS STEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-pressure casing,</td>
<td>Aluminum</td>
<td>Brass</td>
<td>#303 Stainless Steel</td>
</tr>
<tr>
<td>end ports and tapered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>shaft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seals</td>
<td>Buna-N® (STD), EPR, FKM or FFKM</td>
<td>Buna-N® (STD), EPR, FKM or FFKM</td>
<td>FKM with PTFE backup (STD), Buna-N®, EPR or FFKM</td>
</tr>
<tr>
<td>Transfer Magnet</td>
<td>PTFE coated Alnico</td>
<td>PTFE coated Alnico</td>
<td>PTFE coated Alnico</td>
</tr>
<tr>
<td>Floating Orifice Disk</td>
<td>Stainless Steel</td>
<td>Stainless Steel</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>All other internal parts</td>
<td>Stainless Steel</td>
<td>Stainless Steel</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

Buna-N is a registered trademark of Chemische Werke Huls

MATERIALS OF CONSTRUCTION (NON-WETTED COMPONENTS)

<table>
<thead>
<tr>
<th></th>
<th>ALUMINUM</th>
<th>BRASS</th>
<th>STAINLESS STEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window Tube</td>
<td>Polycarbonate (STD)</td>
<td>Polycarbonate (STD)</td>
<td>Polycarbonate (STD)</td>
</tr>
<tr>
<td></td>
<td>Pyrex®</td>
<td>Pyrex®</td>
<td>Pyrex®</td>
</tr>
<tr>
<td>Window Seals</td>
<td>Buna-N® (STD), PTFE</td>
<td>Buna-N® (STD), PTFE</td>
<td>Buna-N® (STD), PTFE</td>
</tr>
</tbody>
</table>

Pyrex is a registered trademark of Corning Incorporated

PERFORMANCE

Measuring accuracy: ±2.5% of full-scale in the center third of the measuring range; ±4% in upper and lower thirds

Repeatability: ±1% of full-scale

Flow measuring range: 1.5-1300 SCFM @ 100 PSIG (1-610 LPS)

Pressure differential: See graphs on the right for typical pressure differentials. For specific differential information, refer to Lake data sheet PDDS-404.

Maximum operating pressure: aluminum and brass monitors: 600 PSIG (40 Bar)
stainless steel monitors: 1000 PSIG (70 Bar)

Maximum operating temperature: 240ºF (116ºC) Note: For operation to 600ºF (316ºC), see our High Temperature data sheet.

Standard calibration fluids: Air @ 70°F (21°C), 1.0 sg and 100 PSIG (6.8 Bar)

Filtration requirements: 74 micron filter or 200 mesh screen minimum

MECHANICAL SIZE CODE

DIM SERIES 3 SERIES 4 SERIES 5 SERIES 5
A 1-7/8" (48mm) 2-3/8" (60mm) 3-1/2" (90mm) 3-1/2" (90mm)
B 6-9/16" (167mm) 7-5/32" (182mm) 10-1/8" (258mm) 12-5/8" (322mm)

Port Sizes NPTF: 1/4", 3/8", 1/2" SAE: #6, #8, #10 BSP: 3/8", 1/2"
NPTF: 3/4", 1" SAE: #12, #16 BSP: 3/4", 1"
NPTF: 1-1/4", 1-1/2" SAE: #20, #24 BSP: 1-1/4", 1-1/2"
NPTF: 2" SAE: #32 BSP: 2"

Note: Consult factory for SAE brass monitor requirements.