**PARTICULATE FILTER/REGULATOR**

- High flow with a wide range of adjustable output pressure ranges
- Optional low profile integrated gauge, round gauge, digital gauge or digital pressure switch
- Optional extended temperature range of -40°C to +80°C
- Threaded ports allow for individual or modular mounting
- Sintered polyethylene elements include 5 and 25 Microns
- Innovative two position plastic drain with manual and semi-automatic functions. Additional drains include an automatic style (brass) and manual (stainless steel)
- Polycarbonate and Aluminium bowls with or without glass gauge, to meet industry all application requirements
- Key lockable and tamper resistant models
- Air lockable and tamper resistant models

### Performance Data

<table>
<thead>
<tr>
<th>Series</th>
<th>Port sizes</th>
<th>Thread type</th>
</tr>
</thead>
<tbody>
<tr>
<td>651</td>
<td>1/8, 1/4</td>
<td>G (NPTF in option)</td>
</tr>
<tr>
<td>652</td>
<td>1/4, 3/8, 1/2</td>
<td></td>
</tr>
<tr>
<td>653</td>
<td>3/4, 1</td>
<td></td>
</tr>
</tbody>
</table>

#### Micron Rating

<table>
<thead>
<tr>
<th>Port size</th>
<th>5 μm</th>
<th>25 μm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>710</td>
<td>-</td>
</tr>
<tr>
<td>1/4</td>
<td>2240</td>
<td>3800</td>
</tr>
<tr>
<td>3/8</td>
<td>-</td>
<td>4450</td>
</tr>
<tr>
<td>1/2</td>
<td>-</td>
<td>4490</td>
</tr>
<tr>
<td>3/4</td>
<td>-</td>
<td>8900</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>9000</td>
</tr>
</tbody>
</table>

#### Maximum inlet pressure (bar)

<table>
<thead>
<tr>
<th>Material</th>
<th>651</th>
<th>652</th>
<th>653</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polycarbonate bowl</td>
<td>16</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Aluminium bowl</td>
<td>16</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

#### Adjustable pressure ranges (bar)

- 0,2 to 3
- 0,5 to 10
- 0,5 to 16 *

#### Hysteresis (bar)

- 0,3
- 0,5
- 0,4

#### Ambient temperature range (°C)

- -20 to +50

#### Fluid temperature range (°C)

- -20 to +50

#### Fluid

- air or inert gas

#### Weight (kg)

<table>
<thead>
<tr>
<th>Material</th>
<th>651</th>
<th>652</th>
<th>653</th>
</tr>
</thead>
<tbody>
<tr>
<td>w/Polycarbonate bowl</td>
<td>0,304</td>
<td>0,546</td>
<td>1,315</td>
</tr>
</tbody>
</table>
| w/Aluminium bowl  | 0,449  | 0,688  | 1,565/1,789 *

* High pressure assisted version.

### Materials in contact with fluid

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>Aluminium</td>
</tr>
<tr>
<td>Seals</td>
<td>NBR/FPM</td>
</tr>
<tr>
<td>Springs</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>Filter element</td>
<td>Sintered polyethylene</td>
</tr>
<tr>
<td>Bawl</td>
<td>Polycarbonate or aluminium</td>
</tr>
<tr>
<td>Poppet</td>
<td>Brass</td>
</tr>
<tr>
<td>Cover / Stem</td>
<td>PA (Polyamide)</td>
</tr>
</tbody>
</table>

### Air Purity Class - ISO 8573-1: 2010

<table>
<thead>
<tr>
<th>Micron</th>
<th>Purity Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 μm</td>
<td>(5:8:4)</td>
</tr>
<tr>
<td>25 μm</td>
<td>(6:8:4)</td>
</tr>
</tbody>
</table>

All leaflets are available on: [www.asco.com](http://www.asco.com)
HOW TO ORDER

Particulate Filter/Regulator

Thread connection
G = ISO 228/1-G (1)
8 = NPTF

Product series
651
652
653

Revision letter
A

Product type
P = Filter/Regulator - Particulate

Elements
B = 5 μm (White)
J = 25 μm (Yellow)

Bowl type
K = Metal bowl without sight gauge
L = Metal bowl with sight gauge (glass)
P = Polycarbonate bowl with bowl guard

Port size
1 = 1/8 (651 Series)
2 = 1/4 (651 or 652 Series)
3 = 3/8 (652 Series)
4 = 1/2 (652 Series)
5 = 3/4 (653 Series)
6 = 1 (653 Series)

Gauge type
B = Digital pressure switch - PNP
C = Digital pressure switch - NPN
D = Digital gauge
G = Low profile integrated gauge bar/PSI
J = Low profile integrated gauge bar/PSI with pressure range indicators
Q = Round gauge bar/PSI
0 = No gauge port
P = Port Plate Rc 1/8

Drain type
0 = Without
A = Auto drain normally open
N = Manual/Semi-automatic drain
Q = Manual drain - Stainless steel

Pressure range
D = 0.2...3 bar
H = 0.5...10 bar
N = 0.5...16 bar (653 only) (2)

Options (3)
A00 = Without option
101 = Side Mounting Brackets
102 = Panel Nut (651 or 652)
103 = Tamper resistant
104 = Key lockable
105 = High temperature (+80°C)
106 = Low temperature (-40°C) (4)
107 = FPM seals
113 = Stainless steel fasteners
114 = Provision for key lock
117 = ATEX zones 1-21
119 = Panel Bracket with Panel Nut (651 or 652)
121 = Non-relieving
123 = Gauge type mounted for right-to-left flow
124 = CUTR Certification (EAC)
125 = CUTR Ex
127 = 105 + 109
2A9 = 105 + 106

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Configurator - CAD Files

(1) Conforms to ISO standards 1179-1.
(2) Metal Bowl Types K or L only.
(3) If multiple options are required, please use the on-line CAD configurator on the website to generate the part number (www.asco.com).
(4) Compressed air must be dry enough so no ice formation is present on the product. All bowls should be emptied prior to ambient temperatures dropping below 0°C.

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20 - Air Preparation
Dimensions: mm

Dimensional Drawing - 651/652/653 Series Particulate Filter/Regulator

651/652 Series

653 Series

653 Series High Pressure

(16 bar)

Cross Section - 651/652/653 Series Particulate Filter/Regulator

<table>
<thead>
<tr>
<th>Series</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>651</td>
<td>215,5</td>
<td>77,5</td>
<td>50</td>
<td>25</td>
<td>58</td>
<td>29</td>
<td>3,4</td>
<td>116</td>
<td>25</td>
<td>35</td>
<td>42</td>
<td>44,5</td>
</tr>
<tr>
<td>652</td>
<td>248</td>
<td>94,5</td>
<td>66</td>
<td>33</td>
<td>69</td>
<td>30,5</td>
<td>4</td>
<td>160</td>
<td>25</td>
<td>41,75</td>
<td>42</td>
<td>50</td>
</tr>
<tr>
<td>653</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J*</th>
</tr>
</thead>
<tbody>
<tr>
<td>653</td>
<td>46,2</td>
<td>2,7</td>
<td>158,9</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>V</th>
<th>W</th>
<th>ØX</th>
<th>ØY</th>
</tr>
</thead>
<tbody>
<tr>
<td>651</td>
<td>44,5</td>
<td>20</td>
<td>10</td>
<td>50</td>
<td>70</td>
<td>92</td>
<td>14,5</td>
<td>6,3</td>
<td>7</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>652</td>
<td>50</td>
<td>20</td>
<td>10</td>
<td>61,5</td>
<td>84</td>
<td>105,5</td>
<td>29</td>
<td>14,5</td>
<td>6,3</td>
<td>7</td>
<td>11</td>
</tr>
</tbody>
</table>

Variable dimension based on type of drain that is specified. If an Automatic Drain is specified, add another 5 mm to "J" dimension.

0196526-3017/F02
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