B82G - General purpose filter/regulator
Excelon® Plus Modular System

- Port size: 1/4" ... 3/8" (ISO G / PTF)
- Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- 5 or 40 micron particle and high efficiency water removal (> 95%)
- Double safety lock bowl
- Push to lock adjusting knob with built in tamper resistant feature
- Metal bowl with prismatic liquid level indicator lens
- Light weight Polycarbonate bowl with guard
- Easy to read flush mounted integrated pressure gauge
- Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40μm)
- 6:8:4 (5μm)

Technical features

Medium:
Compressed air only

Maximum supply pressure:
Polycarbonate bowl: 10 bar (145 psi)
Metal bowl: 17 bar (246 psi)

Outlet pressure ranges:
0.3 ... 10 bar (4 ... 145 psi),
0.3 ... 4 bar (4 ... 58 psi) optional,
0.7 ... 17 bar (2 ... 246 psi) optional

Filter element:
5 μm & 40 μm

Port size:
G1/4, G3/8, 1/4 PTF, 3/8 PTF

Gauge:
Integrated as standard
Gauge port 1/8 as option

Flow:
37 dm³/s at port size 1/4”
37 dm³/s at port size 3/8”
Inlet pressure 10 bar (145 psi) ,
6.3 bar (91 psi) set pressure and
a Δp: 1 bar (14.5 psi) droop from set.

Diaphragm Type:
Relieving

Drain:
Manual or automatic
Automatic drain operating conditions (float operated):
Bowl pressure required to close drain: > 0.35 bar (5 psi)
Bowl pressure required to open drain: ≤ 0.2 bar (2.9 psi)
Minimum air flow required to close drain: 1 dm³/s.

Ambient/Media temperature:
Polycarbonate bowl:
-10 ... +60°C (+14 ... +140°F)
Metal bowl:
-20 ... +65°C (-4 ... +149°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Atex:
Filter/regulators B82 are in conformity with
Atex 2014/34/EU
EX II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Materials:
Body: Die cast aluminum
Body covers: ABS
Bonnet: Acetal/ Aluminum
Valve: PP
Transparent Bowl: Polycarbonate with Polypropylene
Guard.
Metal Bowl: Die cast Zinc with
PA liquid level indicator lens
Filter element: sintered PP
‘O’ - ring: Chloroprene
Elastomers: NBR

Technical data B82G—standard models

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port</th>
<th>Drain</th>
<th>Pressure range (bar)</th>
<th>Filter element (μm)</th>
<th>Bowl</th>
<th>Weight (kg)</th>
<th>Model *1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>G1/4</td>
<td>Auto</td>
<td>0.3 ... 10</td>
<td>40</td>
<td>Guarded polycarbonate</td>
<td>0.30</td>
<td>BB2G-2GK-AP3-RMG</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>G3/8</td>
<td>Auto</td>
<td>0.3 ... 10</td>
<td>40</td>
<td>Guarded polycarbonate</td>
<td>0.30</td>
<td>BB2G-3GK-AP3-RMG</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>G1/4</td>
<td>Auto</td>
<td>0.3 ... 10</td>
<td>40</td>
<td>Metal with level indicator</td>
<td>0.50</td>
<td>BB2G-2GK-AD3-RMG</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>G3/8</td>
<td>Auto</td>
<td>0.3 ... 10</td>
<td>40</td>
<td>Metal with level indicator</td>
<td>0.50</td>
<td>BB2G-3GK-AD3-RMG</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>G1/4</td>
<td>Manual</td>
<td>0.3 ... 10</td>
<td>40</td>
<td>Guarded polycarbonate</td>
<td>0.30</td>
<td>BB2G-2GK-GP3-RMG</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>G3/8</td>
<td>Manual</td>
<td>0.3 ... 10</td>
<td>40</td>
<td>Guarded polycarbonate</td>
<td>0.30</td>
<td>BB2G-3GK-GP3-RMG</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>G1/4</td>
<td>Manual</td>
<td>0.3 ... 10</td>
<td>40</td>
<td>Metal with level indicator</td>
<td>0.50</td>
<td>BB2G-2GK-QD3-RMG</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>G3/8</td>
<td>Manual</td>
<td>0.3 ... 10</td>
<td>40</td>
<td>Metal with level indicator</td>
<td>0.50</td>
<td>BB2G-3GK-QD3-RMG</td>
</tr>
</tbody>
</table>

*1) All models shown here are supplied with integrated gauge applicable for flow direction left to right.
With flow direction right to left please use the online configurator www.imi-precision.com/air-preparation-configurator or contact IMI Norgren.
**Option selector *1)**

<table>
<thead>
<tr>
<th>Port size</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>2</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thread form</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTF</td>
<td>A</td>
</tr>
<tr>
<td>ISO G</td>
<td>G</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Adjustment</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knob (standard)</td>
<td>K</td>
</tr>
<tr>
<td>T-bar</td>
<td>T*2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drain</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual (standard)</td>
<td>Q</td>
</tr>
<tr>
<td>Auto drain (standard)</td>
<td>A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bowl</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal with liquid indicator</td>
<td>D</td>
</tr>
<tr>
<td>Transparent with guard (standard)</td>
<td>P</td>
</tr>
</tbody>
</table>

**B82G−∗∗∗−∗∗∗−R∗∗**

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>With integrated gauge (standard)</td>
<td>G</td>
</tr>
<tr>
<td>Without integrated gauge but with gauge port 1/8&quot;</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressure range *3)</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3 to 4 bar</td>
<td>F</td>
</tr>
<tr>
<td>0.3 to 10 bar (standard)</td>
<td>M</td>
</tr>
<tr>
<td>0.7 to 17 bar (standard)</td>
<td>S*2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 µm (standard)</td>
<td>3</td>
</tr>
<tr>
<td>5 µm</td>
<td>1</td>
</tr>
</tbody>
</table>

*1) All models shown here are applicable for flow direction left to right.

With flow direction right to left please use the online configurator www.imi-precision.com/air-preparation-configurator or contact IMI Norgren

*2) Units with 246 psi (17 bar) outlet pressure range are available only with the T-bar adjustment; therefore substitute T at the 7th position and S at the 9th position. T-bar handle only available with 17 bar option.

**Flow characteristics**

* Inlet pressure: 10 bar (145 psi)
  * Range: 0.3...10 bar (4...145 psi)
  * Port size: 1/4", 5 µm element

* Inlet pressure: 10 bar (145 psi)
  * Range: 0.3...10 bar (4...145 psi)
  * Port size: 3/8", 40 µm element
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8.105.350.

Accessories

Quikclamp®

Quikclamp® with bracket assembled

Neck mounting bracket and panel nut

Panel mounting nut

Mounting bracket

Integrated gauge

10 bar gauge

20 bar gauge

4 bar gauge

Gauge adaptor kit

1/8 PTF

R 1/8

Pressure sensing block

1/4 PTF

G1/4

Porting block

3/8” PTF

G3/8

Pressure switch interface block (18D pressure switch) G1/4

Pressure switch 18D

(0,5 ... 8bar) *1

Digital pressure switch

51D (1 ... 10 bar) *2

Connector 84-82 Series *3

Padlock

Lockout device

Port Adaptors

Page 8

1/4 PTF 820015-02KIT

1/8 PTF 820015-03KIT

G1/4 820015-08KIT

G3/8 820015-09KIT

Gauges

For regulators with gauge port instead of integrated port.

Center back connection, white face

(for full technical specification see datasheet 8.900.900)

<table>
<thead>
<tr>
<th>Pressure range (bar)*3 (MPa)</th>
<th>(psi)</th>
<th>ø</th>
<th>Thread size</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 ... 6</td>
<td>0 ... 6</td>
<td>0 ... 84</td>
<td>40 mm</td>
<td>R1/8</td>
</tr>
<tr>
<td>0 ... 10</td>
<td>0 ... 10</td>
<td>0 ... 145</td>
<td>40 mm</td>
<td>R1/8</td>
</tr>
<tr>
<td>0 ... 25</td>
<td>0 ... 25</td>
<td>0 ... 362</td>
<td>40 mm</td>
<td>R1/8</td>
</tr>
</tbody>
</table>

*1) Flanged version. For other pressure ranges, please see data sheet 5.11.001

*2) For other pressure ranges, please see data sheet 5.11.385

*3) For connection please use Quikclamp 82 series and Hybrid-Quikclamp 84 series

*3) primary scale
## Maintenance/Service

<table>
<thead>
<tr>
<th>Component</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter cartridge 5 micron</td>
<td>820038-50KIT</td>
</tr>
<tr>
<td>Filter cartridge 40 micron</td>
<td>820038-51KT</td>
</tr>
<tr>
<td>Auto drain kit with metal Nut - Imperial</td>
<td>6000-61KIT</td>
</tr>
<tr>
<td>Auto drain kit with metal Nut - Metric</td>
<td>6000-60KIT</td>
</tr>
<tr>
<td>R82 / B82 Elastomer Kit</td>
<td>FRLBB2-KIT</td>
</tr>
</tbody>
</table>

## Spare parts

<table>
<thead>
<tr>
<th>Component</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Bowl (Guarded Poly bowl with auto drain 6 mm PIF)</td>
<td>820025-51KT</td>
</tr>
<tr>
<td>Filter Bowl (Guarded Poly bowl with manual drain)</td>
<td>820025-50KT</td>
</tr>
<tr>
<td>Filter Bowl (Metal with S/Glass &amp; auto drain, 6 mm PIF)</td>
<td>820003-51KIT</td>
</tr>
<tr>
<td>Filter Bowl (Metal with S/Glass &amp; manual drain)</td>
<td>820003-50KIT</td>
</tr>
<tr>
<td>Filter Bowl (Guarded Poly bowl with auto drain, 1/4 PIF)</td>
<td>820025-53KT</td>
</tr>
<tr>
<td>Filter Bowl (Metal with S/Glass &amp; auto drain, 1/4 PIF)</td>
<td>820003-56KT</td>
</tr>
</tbody>
</table>
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Dimensions

1/4 Turn Manual Drain

Automatic Drain

T-bar adjustment

# Minimum clearance for bowl removal

Main ports 1/4", 3/8" (ISO G/PTF)

Gauge port Rc 1/8 for ISO G and 1/8 PTF for PTF main parts
Accessories

Quikclamp® with wall bracket

Panel mounting nut

Universal Mounting bracket

Dimensions in mm
Projection/First angle
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Pressure sensing block

Full flow porting block

Dimensions in mm
Projection/First angle

Porting block for 18D pressure switch

18D Pressure switch

18D Porting block and 18D assembled

Pipe adaptor

Connector 84-82 Series
Warning
These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under "Technical features/data".

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.