**TECHNICAL DATA**

**Fluid:** Compressed air

**Maximum pressure:**
- Transparent bowl: 10 bar (145 psig)
- Metal bowl: 20 bar (290 psig)

**Operating temperature:**
- Transparent bowl: -10 °C to +60 °C (+14 °F to +140 °F)
- Metal bowl: -20 °C to +45 °C (-4 °F to +113 °F)

**Materials:**
- Body: Aluminium
- Valve: NBR
- Bowl O-ring: Nitrile
- Bowl ‘O’ ring: Chloroprene
- Filter elements: G4, G3, G2, G1, G0 ISO 8573-1, remaining oil aerosol to Class 0 (vapor)
- Water vapour will pass through these units and could condense into a liquid form downstream as air moves through these units.

**WARNINGS**

1. Always turn off and exhaust air pressure prior to installing and servicing units.
2. Before applying inlet pressure, pull the adjusting knob up (exposing the red indicator ring) and turn the adjusting knob in the minus direction to remove all force on the regulating spring.
3. Apply inlet pressure, then turn the adjusting knob in the direction indicated on the knob to adjust the pressure setting.
4. Always approach the desired pressure from a lower side and do not exceed it.
5. Only approach the desired pressure from a lower side and do not exceed it.

**GENERAL INSTALLATION**

**GI-1** Always turn off and exhaust air pressure prior to installing and servicing units. Ensure that the air is completely pressurized to begin any actions.

**GI-2** Connect piping to ports using plain thread sealant on male threads only. Do not allow sealant to enter the interior of the unit. Units should be installed with a flow in the direction of the arrow on the body and as close as possible to the device being serviced.

**GI-3** Install filter/pressure regulators and filter-regulators/pressure regulators only.

**GI-3.1** Upstream of regulators, lubricators, and cycling valves and oriented vertically.

**GI-4** Install lubricators and filter/regulator as follows:

**GI-4.1** Upstream of regulators, lubricators, and cycling valves, and oriented vertically.

**GI-4.2** Install lubricators and filter-regulators as follows:

**GI-5** Upstream of lubricators and cycling valves, downstream of filters, and oriented vertically.

**GI-6** Install (upstream of filters and oriented vertically.

**GI-7** Automatic drain. 
- Automatic drain flexible tube requires a minimum internal diameter of 5 mm (3/16”). Drain may be blocked if the tube ID is less than 5 mm. Avoid restrictions in the tube.
- Drain gauge port. 
- Install a pressure gauge or plug the gauge port if no gauge is present.
- GI-7.2 Bend. 
- Ensure the clip and cover are aligned before pressing.

**Shutoff-Down Valve**

**Tamper proofing**

**F-1** Before applying inlet pressure, pull the adjusting knob up (exposing the red indicator ring) and turn the adjusting knob in the direction indicated on the knob to adjust the pressure setting.

**F-2** Apply inlet pressure, then turn the adjusting knob in the direction indicated on the knob to adjust the pressure setting.

**F-3** Always approach the desired pressure from a lower side and do not exceed it.

**F-4** Once the required pressure is achieved, push the knob down (inducer ring aligned) to lock pressure and apply a padlock if required. For T-bar adjustment, tighten lock-nut to lock pressure.

**GENERAL INSTALLATION**

**R-1** Always turn off and exhaust air pressure prior to installing and servicing units. Ensure that the air is completely pressurized to begin any actions.

**R-2** Connect piping to ports using plain thread sealant on male threads only. Do not allow sealant to enter the interior of the unit. Units should be installed with a flow in the direction of the arrow on the body and as close as possible to the device being serviced.

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**R-3.1** Upstream of regulators, lubricators, and cycling valves, and oriented vertically.

**R-4** Install lubricators and filter-regulators as follows:

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**R-5** Upstream of lubricators and cycling valves, downstream of filters, and oriented vertically.

**R-6** Install (upstream of filters and oriented vertically.

**GI-7** Special considerations for units with a:

**GI-7.1** Automatic drain. 
- Automatic drain flexible tube requires a minimum internal diameter of 5 mm (3/16”). Drain may be blocked if the tube ID is less than 5 mm. Avoid restrictions in the tube.
- Drain gauge port. 
- Install a pressure gauge or plug the gauge port if no gauge is present.
- GI-7.2 Bend. 
- Ensure the clip and cover are aligned before pressing.

**FILTER & FILTER/REGULATOR**

**GI-4.1** Upstream of regulators, lubricators, and cycling valves, and oriented vertically.

**GI-4.2** Install lubricators and filter-regulators as follows:

**GI-5** Upstream of lubricators and cycling valves, downstream of filters, and oriented vertically.

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**Shutoff-Down Valve**

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**F-4** Once the required pressure is achieved, push the knob down (inducer ring aligned) to lock pressure and apply a padlock if required. For T-bar adjustment, tighten lock-nut to lock pressure.
Changing Diaphragm—Filter/regulator and Regulator

B-7.1 Pull off the knob.
B-7.2 Use the spanner from the PNR kit to remove the bonnet.
B-7.3 Remove the diaphragm, adjusting screw, and spring.
B-7.4 Push the diaphragm seal into the seat until the knob will fit into the hole in the seat and the inside edge of the seal will be below the top of the spring gland post.
B-7.5 Reference bonnet torque: 15-19.8 lb.ft (2.1-2.7 Nm) for 82 Series
19-17.6 lb.ft (2.7-2.5 Nm) for 84 Series

Changing Gauge Right to Left Flow—Filter/regulator and Regulator

R-5.1 Use a flat-blade screwdriver to push out both cover tabs and remove the cover.
R-5.2 Remove the gauge screws and gauge.
R-5.3 Install the corresponding replacement gauge.
R-5.4 Torque the gauge screws:

<table>
<thead>
<tr>
<th>Series</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>3.0-6.0 IN-LB (0.34-0.68 Nm) for 82 Series</td>
</tr>
<tr>
<td>84</td>
<td>7.0-16.0 IN-LB (0.8-1.8 Nm) for 84 Series</td>
</tr>
</tbody>
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R-5.5 Install cover ensuring tabs snap into place.

Changing Gauge—Filter/regulator and Regulator

R-6.1 Use a flat-blade screwdriver to push out both cover tabs and remove the cover.
R-6.2 Remove the gauge screws and gauge.
R-6.3 Install the corresponding replacement gauge.
R-6.4 Torque the gauge screws to:

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R-6.5 Install cover ensuring tabs snap into place.

Moving Gauge Right to Left Flow—Filter/regulator and Regulator

R-7.1 Pull the new sight dome into the sight dome body until the sight dome engages the sight dome seal.
R-7.2 Use a flat-blade screwdriver to push out both cover tabs and remove the cover.
R-7.3 Remove the sight dome seal.
R-7.4 Install the sight dome and sight dome seal.
R-7.5 Torque the sight dome screw to:

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R-7.6 Reference bonnet torque: 15-19.8 lb.ft (2.1-2.7 Nm) for 82 Series
19-17.6 lb.ft (2.7-2.5 Nm) for 84 Series

Lubricator

Lubricator—Oil level

Servicing/Bowl Replacement
L-1 Remove and install bowl per GI-7.3.

Servicing/Lubricator Sight Dome Replacement
L-2 Install the sight dome and sight dome seal.
L-3 Insert the sight dome and torque to 30-0.5 IN-LB (2.9-5.56 Nm) with a "u" wrench.

Mounting Bracket Options

L-2.1 Remove the sight dome and sight dome seal.
L-2.2 Lubricate the new sight dome seal with a light coat of good quality o-ring grease.
L-2.3 Install the sight dome and sight dome seal.
L-2.4 Install cover ensuring tabs snap into place.

Lubricators (Oil-fog and Micro-fog), gauges, connections kits, filter elements; includes taking, and putting back to conform to standard health & safety requirements of Directives 2014/34/EU and as such contain no potential ignition hazard for explosive environments.

Quickclamp

Quickclamp connection

Recommended Quickclamp Locations

Accessories—82 Series

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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<td>820041-51KIT</td>
<td>82 Series Connecting clamp and bracket</td>
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<tr>
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<td>82 Series Connecting clamp and bracket</td>
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Accessories—84 Series

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Technical Director
James Robinson
June 2019

ATEX Declaration of conformity

EU Declaration of conformity (DoC) 2014/34/EU
Product: Excelon® Plus T84, F84, R84, B84, T82, F82, R82, B82
Manufacturers:
- Norgren Manufacturing de Mexico SA de CV
  Av. de la Montaña 120, Parque Industrial Querétaro, Santa Rosa de Querétaro
  C.P. 76020, Qro, MEX
- Norgren Ltd, Blenheim Way, Fradley Park, Lichfield, Staffordshire, WS13 6SY

We declare that this declaration of conformity is issued under the sole responsibility of the above manufacturer.

2014/34/EU Equipment and protective systems intended for use in potentially explosive atmospheres

The following harmonised standards and technical specifications have been applied

ISO 4414:2010 – Pneumatic fluid power – General rules and safety requirements for systems and their components

Recommended Panel Hole Sizes:

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Dimensions do not apply to smooth start dump valves.