### COMPACT, HIGH PRECISION REGULATORS FOR AIR GAUGING, LABORATORY USE AND PRECISE PILOT CONTROL*

<table>
<thead>
<tr>
<th>Port size</th>
<th>Accuracy (bar)**</th>
<th>Range (bar)</th>
<th>Operation</th>
<th>kg</th>
<th>MODELS</th>
<th>SERVICE KIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1/4</td>
<td>0,01</td>
<td>0,02 ... 0,5</td>
<td>Relieving only</td>
<td>0,59</td>
<td>11-818-999</td>
<td>2787-96</td>
</tr>
<tr>
<td>G1/4</td>
<td>0,03</td>
<td>0,07 ... 4</td>
<td>Relieving only</td>
<td>0,59</td>
<td>11-818-100</td>
<td>2787-98</td>
</tr>
<tr>
<td>G1/4</td>
<td>0,05</td>
<td>0,4 ... 10</td>
<td>Relieving only</td>
<td>0,59</td>
<td>11-818-110</td>
<td>2787-97</td>
</tr>
</tbody>
</table>

* Not recommended for dead end use, consult our Technical Service for details
** Typical mid-range variance from set pressure with 7 bar inlet at 2 dm³/s
A Norgren oil removal filter should be fitted upstream of these units. Can be adjusted to zero bar outlet pressure and generally to pressures in excess of those specified

### TECHNICAL DATA

**Medium:** Compressed air, oil free, filtered to 5 micron

**Maximum inlet pressure:**
- 10 bar (11-818-100)
- 14 bar (11-818-110)
- 8 bar (11-818-999)

**Ambient temperature:**
- 0°C ... +70°C
Consult our Technical Service for use below +2°C

### MATERIALS

- Body & bonnet: zinc alloy
- Adjusting knob: acetal resin
- Elastomers: synthetic rubber

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Compact, high precision regulators for air gauging, laboratory use and precise pilot control
DIMENSIONS

*Note: Ø 17,5 and up to 6 mm max. panel thickness when used with optional panel mounting nut reference 3081-01. To order see accessories opposite.

Weight: 0,59 kg

FLOW CHARACTERISTICS

Inlet pressure (8 bar)

Outlet pressure

Inlet pressure (10 bar)

Outlet pressure & bar low pressure unit

Inlet pressure & bar low pressure unit

Air flow

Air flow
PILOT PRESSURE REGULATORS
For use with pilot operated regulators and relief valves
11400/11-204/20A - G1/4

Can be installed at any point in the compressed air system without regard to accessibility – pilot regulator can be installed in the most convenient location.

Accurate pressure regulation over a wide range of flows

Conventional and feedback versions available

Feedback pilot regulator senses downstream pressure and automatically adjusts pilot operated regulator outlet pressure.

TECHNICAL DATA
Medium:
Compressed air only

Maximum inlet pressure:
20 bar [11-204]
25 bar [11400]

Ambient temperature:
-20°C ... +80°C
Consult our Technical Service for use below +2°C

Gauge ports:
G1/8 [11400]

MATERIALS
11400
Body & bonnet: zinc alloy
Adjusting knob: acetal resin
Elastomers: nitrile

11-204
Body & bonnet: zinc alloy
Adjusting knob: acetal resin
Elastomers: synthetic rubber

CONVENTIONAL PILOT REGULATORS

<table>
<thead>
<tr>
<th>Port size</th>
<th>Range (bar)</th>
<th>MODELS</th>
<th>ACCESSORIES</th>
<th>SERVICE KIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 1/4</td>
<td>0,06...2</td>
<td>11400-2G/PC100</td>
<td>18-013-013</td>
<td>11400-100</td>
</tr>
<tr>
<td>G 1/4</td>
<td>0,06...4</td>
<td>11400-2G/PE100</td>
<td>18-013-013</td>
<td>11400-100</td>
</tr>
<tr>
<td>G 1/4</td>
<td>0,16...7</td>
<td>11400-2G/PG100</td>
<td>18-013-013</td>
<td>11400-100</td>
</tr>
<tr>
<td>G 1/4</td>
<td>7...20</td>
<td>20AL-X2G/PK100</td>
<td>18-013-014</td>
<td>11400-100</td>
</tr>
</tbody>
</table>

* For setting of remotely positioned regulator

FEEDBACK PILOT REGULATORS

<table>
<thead>
<tr>
<th>Port size</th>
<th>Range (bar)</th>
<th>MODELS</th>
<th>ACCESSORIES</th>
<th>SERVICE KIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 1/4</td>
<td>0,16...7</td>
<td>11-204-004</td>
<td>18-001-005</td>
<td>11-204-100</td>
</tr>
<tr>
<td>G 1/4</td>
<td>4...16</td>
<td>11-204-006</td>
<td>18-001-005</td>
<td>11-204-100</td>
</tr>
</tbody>
</table>

* For setting of remotely positioned regulator
Feedback pilot regulators give more sensitive control and quicker reaction to downstream pressure changes. Feedback ‘sensing’ line to be kept to minimum length (<200mm).

**DIMENSIONS**

11-204

![Diagram of 11-204 type]

**Feedback pilot**

Supply air

Conventional pilot regulator

Pilot output line

Outlet air

**Conventional pilot**

Supply air

Pilot output line

Outlet air

Supply air

Pilot operated regulator

Outlet air

*Deduct 20 mm for 20AL-X Series

Weight: 1.00 kg (11400)
1.05 kg (20AL-X)

**FLOW CHARACTERISTICS**

**Inlet pressure (7 bar)**

11400

Outlet pressure vs. Air flow

**Bracket mounting (11-204)**

**Bracket mounting (11400), (20AL-X)**

**Panel mounting (11400), (20AL-X)**
### Precision Pressure Regulators

**R27 - G1/4**

**High-precision manual pressure regulator**
- Highly sensitive and accurate
- Perfect for dead-end applications
- Excellent long term stability
- Handwheel, lever, plunger or pilot operated

**Note:** The R27 is a high precision manual pressure regulator which regulates pressure by use of a control chamber, instead of a spring, so increasing its sensitivity to any variations and eliminating any spring hysteresis. The R27 is perfect for dead-end applications.

**TECHNICAL DATA**
- **Medium:** Dry, oil free air filtered to 25 μm
- **Maximum inlet pressure:** 10 bar
- **Ambient temperature:** -20°C … +70°C
- **Gauge ports:** G1/4
- **Flow capacity:** Up to 300slpm
- **Sensitivity:** Better than 0,3 mbar
- **Hysteresis & repeatability:** Less than 0,05% setting at mid range

**MATERIALS**
- **Body:** passivated zinc diecasting
- **Internal springs:** mild steel
- **Elastomers:** reinforced nylon
- **Port & base screws:** nickel plated brass

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**MODELS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Pressure range (bar)</th>
<th>Operation</th>
<th>Air consumption l/m</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard regulator</td>
<td>0,14 ... 2,0</td>
<td>Handwheel 2,5 ... 3 turns</td>
<td>0,3</td>
<td>0,72</td>
</tr>
<tr>
<td>Standard regulator</td>
<td>0,14 ... 4,0</td>
<td>Handwheel 2,5 ... 3 turns</td>
<td>0,6</td>
<td>0,72</td>
</tr>
<tr>
<td>Standard regulator</td>
<td>0,14 ... 8,0</td>
<td>Handwheel 2,5 ... 3 turns</td>
<td>1,2</td>
<td>0,72</td>
</tr>
<tr>
<td>Lever operated regulator</td>
<td>0,14 ... 2,0</td>
<td>Lever control 125° rotation</td>
<td>0,3</td>
<td>0,72</td>
</tr>
<tr>
<td>Lever operated regulator</td>
<td>0,14 ... 4,0</td>
<td>Lever control 125° rotation</td>
<td>0,6</td>
<td>0,72</td>
</tr>
<tr>
<td>Lever operated regulator</td>
<td>0,14 ... 8,0</td>
<td>Lever control 125° rotation</td>
<td>1,2</td>
<td>0,72</td>
</tr>
<tr>
<td>Plunger operated regulator</td>
<td>0,14 ... 4,0</td>
<td>Plunger travel 1,65 mm</td>
<td>0,6</td>
<td>0,72</td>
</tr>
<tr>
<td>Plunger operated regulator</td>
<td>0,14 ... 8,0</td>
<td>Plunger travel 1,65 mm</td>
<td>1,2</td>
<td>0,72</td>
</tr>
<tr>
<td>Pilot operated relay</td>
<td>0,14 ... 8,0</td>
<td>Pilot pressure signal</td>
<td>1,2</td>
<td>0,72</td>
</tr>
<tr>
<td>Pilot operated relay with manual bias</td>
<td>0,14 ... 8,0 *</td>
<td>Pilot pressure signal, handwheel controlled bias</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Bias of up to 2 bar

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For further information

[www.norgren.com/info/en-6-122](http://www.norgren.com/info/en-6-122)
DIMENSIONS
Precision pressure regulators

R27-200

R27-236

R27-230

R27-234

FLOW CHARACTERISTICS
Forward Flow Characteristics
(Supply Pressure 7bar)

Relief Flow Characteristics
(Supply Pressure 7bar)